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COUNTY BOROUGH OF BIRKENHEAD



ANNUAL REPORT  
OF THE  
MEDICAL OFFICER  
FOR  
1937

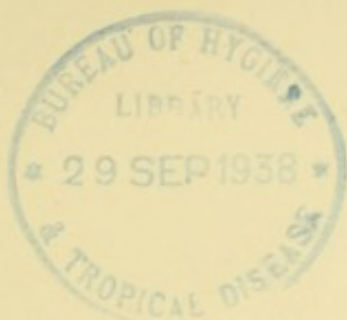
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D. MORLEY MATHIESON, M.A., M.D. (Edin.), Ch.B., D.P.H.

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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HIS WORSHIP THE MAYOR OF BIRKENHEAD

(Alderman C. McVey, J.P.)

CHAIRMEN OF COMMITTEES

(31/12/1937)

Education Committee .....	Councillor FURNESS
Finance Committee .....	Councillor PRENTICE, J.P.
Health Committee .....	Councillor VINES
Maternity & Child Welfare Committee .....	Coun. Mrs. GRANT
Mental Deficiency Committee .....	Councillor HOWARD
Public Assistance Committee .....	Councillor BAKER, J.P.
Water Committee .....	Councillor BOYD

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## P R E F A C E

The Registrar-General's estimate of the population as at Midsummer, 1937, is 145,500.

The live birth rate for 1937 was 16.3 per 1,000 as compared with 16.4 for 1936; and the death rate 13.0 per 1,000 as against 12.6 for 1936.

The infantile mortality rate was 77 per 1,000 births as compared with 63 in the previous year.

The cancer death rate again showed a slight increase, as also (but to a lesser extent) did this rate for England and Wales. (P. 45.) The death rate from tuberculosis was 86 per 100,000 as against 88 in 1936.

The work of the Municipal Hospital has steadily increased. 5,253 patients were admitted, as compared with 4,980 in 1936; and 1,075 major operations were performed, as compared with 965.

The number of patients admitted to the Infectious Diseases Hospital during the year showed an increase of 342 as against that for 1936. This was chiefly due to a rise in the incidence of diphtheria. (P. 38.)

At Landican Cemetery 125 cremations took place, as compared with 112 in 1936.

The representation made by the Medical Officer of Health in 1936 with regard to 360 houses scheduled under Part 1 of the Housing Act, 1930 was confirmed by the Ministry of Health, and the houses were in process of demolition during the year. A further 173 houses were built by the local authority in 1937. 321 houses were represented during 1937 by the Medical Officer of Health, to be dealt with under Part 3 of the Housing Act, 1936.

The position left vacant by the resignation at the end of 1936 of Dr. Deacon was filled by the appointment of Dr. Unsworth, who began duty in January.

Dr. Agnes Muir resigned her post through ill-health in the latter part of the year, and was succeeded by Dr. Archibald Dodd, who took up duty in November.

On the recommendation of the Medical Officer of Health, the Birkenhead Medical Society appointed, in March, 1937, a Consultative Committee consisting of representatives of general medical practitioners, consultants, and whole-time members of the Public Health Service. This Committee has met several times during the year, and has done most useful work.

Responsibility for the organisation of a highly complicated system of medical Air Raid Precautions services, including the establishment of first-aid posts, the provision of hospital accommodation, the training of personnel, etc., has been thrown by the Home Office on the Public Health Department.

The manner in which members of the staff of the Department have carried out their duties during the past year calls for high praise. It is also necessary to record gratitude for the great interest and helpfulness shown by those Committees which are directly concerned with the administration of the Public Health Services, and whose members alone can have real knowledge and appreciation of the numberless problems and ever-growing responsibilities of a large Public Health Department.

D.M.M.

## SHORT STATISTICAL SUMMARY

1937

Area of the Borough .....	8,598 acres, or 13.4 square miles
Estimated population (at midsummer, 1937) .....	145,500
Number of persons per acre (density of population) .....	16.9
Approximate number of houses in Borough at end of 1937 ...	33,069
Number of inhabited houses at times of census, 1931 .....	30,493
Number of families or separate occupiers at time of census, 1931 .....	35,577
Rateable value, April, 1937 .....	£994,560
Estimated product of penny rate, 1937-1938 .....	£3,723
Birkenhead consolidated rate, 1937-1938 .....	13/10 in the £
Birth-rate (live) per 1,000 of the population .....	16.3
Death-rate    ,,            ,,            ,, .....	13.0
Average death-rate for the last ten years .....	12.6
Tuberculosis death-rate per 1,000 of the population .....	0.86
Infantile mortality rate (per 1,000 births) .....	77
Average number of children in elementary schools .....	20,611
Number of elementary school children medically inspected during year .....	8,938

## 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 1937 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.

**Deputy Medical Officer of Health:**

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

**Assistant Medical Officers:**

Anna May Williams, M.B., Ch.B., D.P.H.

J. Morrison Ritchie, M.A., M.B., Ch.B., D.P.H.

E. Blackstock, B.Sc., M.D., B.Ch., B.A.O., D.P.H.

R. Sandilands, B.Sc., M.B., Ch.B., D.P.H.

Patricia I. Unsworth, M.R.C.S., L.R.C.P., D.P.H.

Archibald Dodd, M.B., Ch.B., D.P.H.

\*Phyllis Marsh, M.B., Ch.B.

**Medical Staff, Birkenhead Municipal Hospital:**

Ross A. Grant, F.R.C.S., M.B., Ch.B. (Medical Superintendent)

Neville J. Nicholson, F.R.C.S., M.B., Ch.B. (Deputy Medical Superintendent)

E. A. J. Byrne, M.D., B.Ch., B.A.O. (Senior Resident Medical Officer)

F. Lanceley, M.B., Ch.B.

M. Rassin, M.B., Ch.B., F.R.C.S.

J. W. Rae, M.B., Ch.B.

**Consultants:**

\*R. W. Gemmell, M.D., Ch.B., D.P.H. (Radiologist)

\*W. Johnson, M.D., F.R.C.P. (Physician)

\*P. W. Leathart, B.A., M.B., B.Ch. (Aurist and Laryngologist)

\*S. Barton Hall, M.D., Ch.B., D.P.M. (Psychiatrist)

\*T. Hartley Martin, M.B., Ch.B. (Orthopaedic Surgeon)

\*S. B. Herd, M.D., B.S., M.C.O.G. (Obstetrician and Gynaecologist)

\*D. L. Charters, M.B., Ch.B., D.O.M.S. (Ophthalmic Surgeon)

**Dental Surgeons:**

P. Wilson Smith, L.D.S.

Eveline M. Warlow, L.D.S.

W. G. Walch, L.D.S.

A. C. Capper, L.D.S.

\*C. F. Anderson, L.D.S.

**Veterinary Officer:**

N. M. Clayton, M.R.C.V.S.

**Bacteriologist and Pathologist:**

Dr. J. Morrison Ritchie (Assistant Medical Officer)

**Analyst:**

\*W. H. Roberts, M.Sc., F.I.C.

**Matron, Birkenhead Municipal Hospital:**

Miss J. Rhodes

**Matron, Infectious Diseases Hospital:**

Miss L. Liggins

**Matron, Thingwall Sanatorium:**

Miss I. R. Millar

**Health Nursing Staff :**Miss K. Nixon (Chief Health Nurse).  
Health Nurses, 21**Medical Supervisor of Midwives :**

Dr. P. I. Unsworth

**Assistant Supervisor of Midwives :**

Miss M. M. Graham (Health Nurse)

**Inspection Staff :**Alfred Longstaff (Chief Inspector and Inspector under the Food  
and Drugs Acts)  
Housing, District, Food and Drugs etc. Inspectors, 19**Clerical Staff :**W. M. Cavers (Chief Clerk)  
Others, 32**Public Vaccinators :**\*R. W. Laird Pearson, M.A., M.R.C.S., L.R.C.P.  
\*H. Cresswell Pierce, M.A., M.R.C.S., L.R.C.P.  
\*Ross A. Grant, F.R.C.S., M.B., Ch.B.**Vaccination Officers :**\*O. R. Lockey  
\*E. W. Owens**Other Staff:**

Nursing Staff, Birkenhead Municipal Hospital .....	132
Dispenser, Birkenhead Municipal Hospital .....	1
Masseuse, Birkenhead Municipal Hospital .....	1
School Teacher, Birkenhead Municipal Hospital .....	1
Domestic Staff, Birkenhead Municipal Hospital .....	30
Male Staff, Birkenhead Municipal Hospital .....	17
Nursing Staff, Infectious Diseases Hospital .....	31
Domestic Staff, Infectious Diseases Hospital .....	26
Male Staff, Infectious Diseases Hospital .....	7
Nursing Staff, Thingwall Sanatorium .....	7
School Teacher, Thingwall Sanatorium .....	1
Domestic Staff, Thingwall Sanatorium .....	8

Male Staff, Thingwall Sanatorium .....	1
Assistants on Meat Inspection Work .....	2
Laboratory Assistants .....	3
Male Orderly (Venereal Diseases Clinic) .....	1
Home Teachers (Blind Persons) .....	2
Supervisor and Assistant Supervisor (Occupation Centre) ...	2
Dental Attendant .....	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 1,006 new posts have been created, making a total of 2,912.

**Medical examinations carried out during 1937.**—During the past year 163 examinations of selected applicants for designated posts were carried out.

Department	Designated Posts
Audit .....	1
Baths .....	1
Borough Engineer and Surveyor's .....	7
Borough Treasurer's .....	4
Cleansing .....	15
Education .....	7
Electricity .....	10
Gas .....	8
Justices' Clerk's .....	1
Libraries .....	1
Medical Officer's .....	32
Parks and Cemeteries .....	1
Public Assistance .....	34
Town Clerk's .....	3
Transport .....	29
Water .....	8
Weights and Measures .....	1
Total Examinations .....	163

Note—In addition to the above there were 16 re-examinations during 1937.

## POPULATION, BIRTHS, AND DEATHS

### POPULATION

**Population.**—The population of the Borough as recorded at the time of the 1931 census was 147,803.

The Registrar-General's estimate of the population of the Borough as at mid-year, 1937, was 145,500. This figure is 2,500 less than the estimate at mid-year 1936.

### BIRTHS

**Births registered during 1937, and birth-rate.**—During the year 2,379 live births belonging to the Borough were *registered*. (This total includes 66 Birkenhead births registered in other areas and transferred to Birkenhead, and excludes 321 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 Municipal Hospital). There were also 121 stillbirths belonging to Birkenhead registered, in accordance with Section 7 of the Births and Deaths Registration Act 1926.

Calculated on the live and still births the birth-rate for 1937 is 17.1. The birth-rate calculated on the live births alone is 16.3.

**Birth-rate in recent years.**—The birth-rates since 1928 (calculated on live and still births) are as follows :—

1928 .....	18.5 per 1,000
1929 .....	18.9 „
1930 .....	17.8 „
1931 .....	18.4 „
1932 .....	17.7 „
1933 .....	17.1 „
1934 .....	17.6 „
1935 .....	17.8 „
1936 .....	17.2 „
1937 .....	17.1 „

#### Comparison of birth-rate with rates for country generally—

	Per 1,000 of population	
	Live births	Still births
England and Wales .....	14.9	0.60
125 County Boroughs and Great Towns (including London) .....	14.9	0.67
148 smaller towns (estimated resident populations 25,000 to 50,000 at census, 1931) .....	15.3	0.64
London Administrative County .....	13.3	0.54
Birkenhead .....	16.3	0.83

The birth-rate is further dealt with in the Maternity and Child Welfare section of the Report (page 75).

**Sex-distribution of births.**—Of the 2,379 live births, 1,245 were males and 1,134 females; a proportion of 1,097 : 1,000.

**Legitimacy.**—Of the 2,379 live births registered 102 were illegitimate, a percentage of 4.2.

**Registration of stillbirths.**—The 121 stillbirths registered were classified as follows :—

Legitimate—	Males .....	52
	Females .....	60
Illegitimate—	Males .....	5
	Females .....	4
		121

The stillbirth rate was 48 per 1,000 total births.

**Births notified during 1937.**—During the year, 2,706 births were notified in the Borough under the Notification of Births Acts, 1907 and 1915. Of these 130 were stillbirths, leaving a total of 2,576 live births. This total includes births which occurred in the Birkenhead Maternity Hospital, the Birkenhead Municipal Hospital, 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...	487	(27 stillbirths)
Birkenhead Municipal Hospital...	476	(36 „ )
Birkenhead General Hospital ...	9	( 3 „ )
Births in Nursing Homes .....	157	( 6 „ )
Other births:—		
Notified by doctors .....	52	( 7 „ )
Notified by midwives .....	1525	(51 „ )
Notified by parents .....	—	(— „ )
		2706 (130 stillbirths)

**Un-notified births.**—The Registrars reported 54 cases of un-notified births; 41 by both certified midwives and doctors, 10 by the Maternity Hospital staff, 2 by the Birkenhead Municipal Hospital staff, and 1 by the Birkenhead General Hospital staff.

## DEATHS

**Death-rate.**—1,892 deaths occurred during the year; the total figure includes 103 deaths of Birkenhead residents which occurred outside the Borough, but excludes 267 deaths of non-residents which occurred in the area. This gives a death-rate of 13.0 per 1,000.

**Standardised death-rate.**—Though the above reflects the extent of death in Birkenhead it should not be used for the purpose of making comparisons with the position obtaining in other areas or in the country as a whole. The age and sex composition of compared areas must be taken into account before it is safe to make any deductions in regard to the influence exercised upon the degree of mortality by social, economic or other factors. All other things being equal, an area with

an excessive number of old people will necessarily have a higher death-rate than one in which younger people are relatively more preponderant. So also will an area with a greater proportion of males to females, since at almost all ages mortality is greater among the former.

It is therefore necessary to reduce age and sex distribution to a common level; that is, to adjust the distribution in a given area so as to make it comparable with the distribution in the whole country. In Birkenhead the difference from the average has the effect of making the death-rate more favourable than it would otherwise be. To make the rate properly comparable, therefore, it has to be multiplied by a factor representative of the proportion which the country's distribution bears to Birkenhead's distribution. This factor is 1.09; and the result of the adjustment is to raise the crude death-rate of 13.0 to 14.1. Comparison of the latter figure may be made with a similarly standardised rate for any other area, the influence of age and sex having in both cases been eliminated.

**Deaths in recent years.**—The death-rates since 1928 are as follows:—

1928 .....	12.3 per 1,000
1929 .....	13.9 „
1930 .....	11.7 „
1931 .....	13.4 „
1932 .....	11.6 „
1933 .....	13.5 „
1934 .....	12.0 „
1935 .....	12.5 „
1936 .....	12.6 „
1937 .....	13.0 „

**Seasonal deaths.**—The following table gives the deaths for each quarter of the years 1936 and 1937:—

	No. of deaths	
	1936	1937
First quarter.....	619	679
Second quarter.....	457	442
Third quarter.....	350	333
Fourth quarter.....	438	438
Totals .....	1864	1892

**Sex-distribution of deaths.**—Of the total deaths 955 were males and 937 females, a proportion of 1,019 : 1,000.

**Uncertified deaths.**—In 1937 there were 2 uncertified deaths belonging to the area.

**Coroners' inquests.**—Coroners' inquests were held regarding 92 deaths—that is, in 4.8 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 54 deaths (2.8 per cent. of the total deaths during the year) were registered without the Coroner holding an inquest.

**Causes of death.**—Detailed causes of death during 1937 compiled in this department are not published in this report. Table P. 1 (pages 6 and 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 184 deaths of infants under 1 year old. This corresponds to an infantile mortality rate of 77 per 1,000 births.

There were 7 deaths in illegitimate infants under 1 year old; giving an illegitimate mortality rate of 68 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 1928 are given below :

1928 .....	80
1929 .....	86
1930 .....	86
1931 .....	86
1932 .....	71
1933 .....	99
1934 .....	60
1935 .....	67
1936 .....	63
1937 .....	77

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

	No. in 1936	No. in 1937
(a) Pneumonia (all forms) .....	19	36
Bronchitis .....	3	7
Whooping cough .....	5	5
Measles .....	9	—
Diarrhœa and enteritis .....	8	23
(b) Premature birth .....	52	55
(c) All other causes .....	56	58
	<hr/>	<hr/>
	152	184
	<hr/>	<hr/>

**Deaths from tuberculosis.**—Tuberculosis was responsible for 6.6 per cent. of all the deaths recorded in the Borough in 1937. The deaths from the disease were as follows:—

Deaths from tuberculosis of the lungs .....	110
Deaths from other forms of tuberculosis .....	16
	<hr/>
	126
	<hr/>

This gives a tuberculosis death-rate of 0.86 per 1,000 of the population.

Of the 110 deaths from respiratory tuberculosis during 1937, 98 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 60 deaths, as follows :—

Diarrhœa and enteritis (under 2 years) .....	23
Whooping cough .....	11
Measles .....	—
Scarlet fever .....	1
Diphtheria (including membranous croup) .....	25
Fever (enteric, typhus, and simple continued)...	—
Smallpox .....	—

This corresponds to a death-rate from all these diseases of 0.41 per 1,000 of the population.

**Deaths from other notifiable infectious diseases.**—Pneumonia caused, in its various forms, 147 deaths; erysipelas, 1; cerebro-spinal fever, 5; poliomyelitis, 1; encephalitis lethargica, 2.

**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	All ages	Ages												
			0—	1—	2—	5—	15—	25—	35—	45—	55—	65—	75—		
All causes .....	Male Female	955 934	104 81	20 8	13 19	33 25	30 34	37 39	47 36	106 85	191 132	216 214	158 261		
1 Typhoid and paratyphoid fevers .....	Male Female	...	...	...	...	...	...	...	...	...	...	...	...		
2 Measles .....	Male Female	...	...	...	...	...	...	...	...	...	...	...	...		
3 Scarlet fever .....	Male Female	1 6	...	1 2	...	...	...	...	...	...	...	...	...		
4 Whooping cough .....	Male Female	2 3	1 1	2 2	8 6	...	...	...	...	...	...	...	...		
5 Diphtheria .....	Male Female	12 13	1 1	2 5	1 1	1 1	1 4	2 1	1 1	3 5	6 7	5 5	1 10		
6 Influenza .....	Male Female	20 34	...	1 1	1 1	...	...	...	...	...	...	...	...		
7 Encephalitis lethargica.....	Male Female	1 2	...	...	...	...	...	...	...	2	...	...	...		
8 Cerebro-spinal fever .....	Male Female	2 2	...	...	...	...	...	...	...	...	...	...	...		
9 Tuberculosis of respiratory system .....	Male Female	56 54	1 1	1 2	1 2	8 17	9 14	16 6	12 6	16 5	16 6	4 3	...		
10 Other tuberculous diseases .....	Male Female	7 10	1 ...	2 2	2 1	4 ...	1 ...	1 ...	1 1	...	1 1	1 ...	...		
11 Syphilis .....	Male Female	5 2	...	...	...	...	...	...	...	3 1	1 1	...	...		
12 General paralysis of the insane, tabes dorsalis .....	Male Female	3 2	...	...	...	...	...	...	...	1 1	1 1	1 1	...		
13 Cancer, malignant disease .....	Male Female	126 130	...	...	...	1 1	1 3	36 39	9 8	21 24	36 39	39 30	18 24		
14 Diabetes .....	Male Female	6 19	...	...	...	1 2	...	1 2	2	...	5 5	4 6	4 4		
15 Cerebral hemorrhage, etc. ....	Male Female	30 30	...	...	...	1 1	...	4 4	...	8 4	4 6	7 9	10 11		
16 Heart disease .....	Male Female	197 233	...	...	...	2 1	2 3	6 4	6 4	17 20	47 25	65 73	58 103		
17 Aneurysm .....	Male Female	7 2	...	...	1 ...	...	1 ...	3 1	4 ...	2 1	3 ...	1 1	...		





TABLE P 2

## Infant deaths: causes and ages

Causes of death	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	Over 4 weeks & under 3 months	3-6 months	6-9 months	9-12 months	Total under 1 year
All causes.....	59	9	6	4	78	25	38	20	23	184
Smallpox ..	..	..	..	..	..	..	..	..	..	..
Chickenpox ..	..	..	..	..	..	..	..	..	..	..
Measles ...	..	..	..	..	..	..	..	..	..	..
Scarlet fever ..	..	..	..	..	..	..	..	..	..	..
Whooping cough ..	..	..	..	..	..	1	..	2	2	5
Diphtheria ..	..	..	..	..	..	..	..	..	..	..
Influenza ..	..	..	..	..	..	..	..	..	..	..
Tuberculosis of central nervous system ..	..	..	..	..	..	..	..	..	..	..
Tuberculosis of intestines and peritoneum ..	..	..	..	..	..	..	..	..	..	..
Meningitis (not tuberculous) ..	2	..	..	..	2	..	..	2	..	4
Convulsions ..	..	1	..	..	1	..	1	..	..	2
Bronchitis (all forms).....	..	..	..	..	..	1	4	1	1	7
Pneumonia (all forms) ..	1	..	1	..	2	6	14	3	11	36
Diarrhoea and enteritis ..	..	..	..	..	..	4	12	5	2	23
Gastritis ..	..	..	..	..	..	..	..	..	..	..
Syphilis ..	..	..	..	..	..	..	..	..	..	..
Rickets ..	..	..	..	..	..	..	..	..	1	1
Injury at birth ..	4	..	..	..	4	..	..	..	..	4
Atelectasis ..	5	..	..	..	5	..	..	..	..	5
Congenital malformations... ..	7	1	1	..	9	4	1	..	..	14
Premature birth ..	39	5	4	3	51	4	..	..	..	55
Atrophy, debility and marasmus ..	..	..	..	..	..	3	3	1	1	8
Other causes ..	1	2	..	1	4	2	3	6	5	20
Totals.. ..	59	9	6	4	78	25	38	20	23	184

## Nett live births in the year—

Legitimate .....	2277
Illegitimate .....	102

## Nett deaths in the year—

Legitimate infants .....	177
Illegitimate infants ...	7

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

	Annual death rate per 1000 civilian population								Rate per 1000 live births		
	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
England and Wales .....	12.4	0.00	—	0.02	0.01	0.04	0.07	0.45	0.54	5.8	58
125 County Boroughs and Great Towns ..... including London (census population exceeding 50,000)	12.5	0.01	—	0.03	0.01	0.04	0.08	0.39	0.45	7.9	62
148 Smaller Towns ..... (estimated resident populations 25,000 to 50,000 at Census 1931)	11.9	0.00	—	0.02	0.01	0.03	0.05	0.42	0.42	3.2	55
London Administrative County .....	12.3	0.00	—	0.01	0.01	0.06	0.05	0.38	0.51	12.0	60
Birkenhead.....	13.0	—	—	—	0.00	0.06	0.17	0.37	0.53	9.7	77

## WATER SUPPLY, FOOD, AND DRUGS

### ADMINISTRATIVE ARRANGEMENTS

At the end of the year the permanent staff engaged on meat inspection consisted, in addition to the Veterinary Officer (Mr. N. M. Clayton), of one meat inspector, five assistant inspectors, two detention officers, and one junior clerk.

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.

### WATER SUPPLY

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

The consumption of water in Birkenhead from the Alwen supply during the year ending 31st December, 1937, was 1,368,385,000 gallons.

**Bacteriological examinations.**—The bacteriological examination of the Alwen water supply is carried out in the laboratory in the Department.

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

50 samples of tap water in Birkenhead.

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

24 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

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

(a) **Farms, etc., outside the Borough.**—196 samples of milk from these farms were taken in the Borough by the Veterinary Officer and submitted for biological examination at the Municipal Laboratory. 21 of these (approximately 10%) were found to contain living tubercle bacilli. Under the provisions of the Milk and Dairies (Consolidation) Act, 1915, the Veterinary Officer paid 23 visits to milk producers' farms outside the Borough and inspected the herds responsible for these

infected samples, 705 cows being examined. As a result 11 cows were discovered to be giving tuberculous milk: the animals were slaughtered in accordance with the provisions of the Tuberculosis Order, 1925. In those cases where no affected cow was found on examination of the herd, it was learned that the animals which were probably the source of infection had been killed, or sold from the herd.

(b) **Farms, etc., within the Borough.**—At the end of the year there were 24 farms within the Borough, with a total of 422 dairy cows. Clinical examinations of all dairy cows were carried out quarterly by the Veterinary Officer; 72 visits being paid and 1,329 examinations being carried out.

4 samples of milk from cows showing induration of the udder were taken and examined microscopically. In 2 cases the milk showed the presence of tubercle bacilli and the affected cows were slaughtered. 11 cows suffering from other forms of tuberculosis than tuberculosis of the udder were also slaughtered.

5 of the herds were licensed under the Milk (Special Designations) Order, 1936, for the production of "accredited" milk. No cows were found to be affected with conditions requiring their exclusion from the herds.

**Milkshops and the retail sale of Milk.**—There are 123 registered milkshops in Birkenhead. In addition, the following are registered for retailing milk within the Borough—89 farmers resident outside Birkenhead, 9 "purveyors" of milk, and the owners of the 24 cowsheds within the Borough referred to in the preceding paragraph.

**Applications for registration.**—During the year applications for registration—Milk and Dairies (Amendment) Act, 1922—have been received from 7 persons desiring to retail milk within the Borough. These have been placed on the register.

**Sale of "Graded" milk.**—Under the Milk (Special Designations) Order, 1936, the following licences were granted:—

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

3 licences to bottle and sell *Tuberculin Tested milk*.

16 licences to sell *Tuberculin Tested milk*.

7 licences to produce *Accredited milk*.

6 licences to bottle and sell *Accredited milk*.

4 licences to sell *Accredited milk*.

1 supplementary licence to sell *Tuberculin Tested milk*.

1 supplementary licence to sell *Accredited milk*.

16 licences to sell *Pasteurised milk*

1 licence to *Pasteurise milk*.

**The chemical and physical examination of milk.**—During the year 262 samples of milk were taken for chemical analysis.

**The bacteriological examination of milk.**—176 samples of milk were examined in the Municipal Laboratory during the year. 163 of these samples were satisfactory and 13 were not satisfactory.

Suitable action was taken with regard to the unsatisfactory samples.

## OTHER FOOD: DRUGS

**Abattoirs in Birkenhead.**—Slaughtering is carried out in

- (a) the Corporation abattoir at Tranmere;
- (b) the slaughterhouse within the Woodside Lairages; and
- (c) the slaughterhouse at the Wallasey Stage and Wallasey Nos. 4 and 5 sheds, which are situated within the Borough of Birkenhead, and which are used for animals which have to be killed immediately on landing.

Meat inspection at the abattoir and slaughterhouses.—During the year a total of 108,471 animals (see the following table) was slaughtered within the borough. The decrease of 34,117 on the previous year was partly due to the almost complete cessation of the Canadian trade, and partly to a decline in the Irish trade.

TABLE F 1  
Animals killed in Birkenhead during 1937.

	Oxen	Calves	Sheep	Pigs	Total
<b>At Woodside Lairages—</b>					
Irish ... ..	29977	—	60939	188	91104
Canadian ... ..	7	—	—	—	7
Manx ... ..	1	—	26	—	27
<b>At Wallasey Stage and Nos. 4 and 5 Sheds—</b>					
Irish ... ..	46	—	703	36	785
Canadian ... ..	—	—	—	—	—
Manx ... ..	—	—	13	—	13
<b>At Tranmere Abattoir—</b>					
Irish ... ..	—	—	—	—	—
Canadian ... ..	76	—	—	—	76
Home-fed ... ..	659	884	9461	5455	16459
<b>Totals</b> .. ..	<b>30766</b>	<b>884</b>	<b>71142</b>	<b>5679</b>	<b>108471</b>

All meat condemned by the meat inspection staff as unfit for human consumption was surrendered by the owners for destruction. In no case was formal seizure found to be necessary. The following is a summary of surrenders during the year:—

	Oxen	Calves	Pigs	Sheep	Total	Weight (lbs.)
<b>For tuberculosis—</b>						
Whole carcasses ... ..	146	—	12	1	159	87,965
Part carcasses ... ..	368	—	294	—	662	34,823
<b>For other conditions—</b>						
Whole carcasses ... ..	23	5	11	54	93	17,044
Part carcasses ... ..	60	1	53	11	125	1,470

The amount of offal condemned was 204,312 lbs.

The total weight of meat condemned therefore was over 154 tons.

**Inspection of meat and other food at shops.**—During the year the inspectors paid 13,588 visits to shops, stalls, etc., where food is stored or exposed for sale. Foodstuffs amounting in the aggregate to 3,808 lbs., and 112 jellies and 1½ gallons of vinegar, were found unfit for human consumption.

**Export of animal products.**—Veterinary certificates were granted for the export of the following:—

- to Czecho-Slovakia*—3 tierces of beef bungs
- to France*—1 keg of beef casings  
14 tierces of beef casings
- to Holland*—10 tierces of beef casings  
5 barrels of beef casings  
13 casks of beef casings  
2,764 lbs. of caul beef fat
- to Germany*—15 tierces of beef casings
- to Poland*—967 bags of stearine  
1 tierce of beef casings
- to U.S.A.*—19 tierces of beef casings  
30 lbs. of sheep casings  
3 tierces of sheep casings  
1 keg of sheep casings

**Sale of Food Order, 1921; Merchandise Marks Act, 1926; and Agricultural Produce (Grading and Marking) Act, 1928.**—Legal proceedings under the Merchandise Marks Act were taken against a butcher, who was fined £16. No action in any other direction was found to be necessary.

**Slaughter of Animals Act, 1933.**—The Act provides that all persons slaughtering animals in a slaughtering house or knacker's yard must be over eighteen years of age and be licensed by the local authority.

At the end of the year the names of 82 men to whom licences had been granted were on the register.

No contravention of the Act came under notice during the year.

**Samples taken under Food and Drugs Acts.**—During the year 522 samples were taken. Of these 267 were formal and 255 informal. 262 were samples of milk.

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

TABLE F 2  
Samples taken during 1937

Article	No. samples taken formally	No. samples taken informally	Article	No. samples taken formally	No. samples taken informally
Milk .....	262	...	Custard powder .....	...	3
Cream and whipped cream .....	...	7	Oatmeal .....	...	2
Butter .....	...	12	Rice .....	...	3
Cheese and wrapped cheese .....	...	17	Treacle .....	...	1
Margarine .....	...	7	Baking powder and .....	...	4
Lard .....	...	6	gravy salt... ..	..	4
Dripping .....	..	4	Dried mint .....	...	4
Tea .....	1	10	Christmas pudding .....	...	1
Coffee and Essences .....	...	7	Dessicated cocoanut ..	...	1
Cocoa .....	..	4	Sultanas .....	...	2
Sugar .....	...	4	Currants .....	..	3
Confectionery .....	...	6	Dates .....	...	1
Jam .....	...	8	Mince meat .....	...	4
Honey .....	...	5	Mixed spice .....	...	2
Lemon cheese and curd ..	...	5	Crystallised fruit .....	...	3
Condensed milk .....	...	7	Ground cinnamon .....	...	2
Condiments .....	...	6	Ground ginger.....	...	4
Barley .....	..	5	Non-Alcoholic wines ..	...	3
Lentils .....	...	2	and cordials... ..	...	3
Minceed beef... ..	...	4	Aspirin tablets .....	...	4
Brawn .....	..	1	Liquid cascara.....	...	2
Sausages .....	1	14	Seidlitz powder .....	...	2
Beef suet with rice flour...	...	2	Medicinal paraffin .....	...	2
Corn flour .....	...	3	Camphorated oil.....	...	2
Potted meat paste .....	...	5	Almond oil .....	1	2
Potted fish paste .....	...	5	Mercury ointment .....	1	2
Potted shrimps .....	...	1	Zinc ointment.....	1	5
Salmon creme .....	...	1	Boracic ointment .....	...	4
Tinned fish .....	...	4	Tincture of iodine .....	...	1
Tinned fruit .....	..	1	Vaseline .....	...	2
Pickles .....	...	6			
Sauce .....	...	7			
Vinegar .....	..	4			
Olive oil .....	...	4			

Samples analysed formally ..... 267  
Samples analysed informally ..... 255

Total samples analysed during the year... 522

Of the total number of samples analysed

20 samples of milk	2 samples of mercury ointment
2 samples of dried mint	1 sample of boric ointment
2 samples of confectionery	1 sample of almond oil
2 samples of jam	1 sample of tea
1 sample of preserves	1 sample of sausage
3 samples of zinc ointment	1 sample of baking powder

were reported adulterated, and proceedings were taken in respect of:---  
5 samples of milk and one sample of zinc ointment.

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 3.

TABLE F 3

Samples with reference to which proceedings were taken  
Nature of adulteration and result of proceedings

Date	Article	No. of sample	Adulteration	Fine inflicted or result
July 23	Milk .....	216	3% added water ; 5% deficient in fat ...	Case dismissed
Aug. 6	Milk .....	236	11% deficient in fat .....	Case dismissed
Aug. 6	Milk .....	270	6% deficient in fat.....	14/6 costs
July 29	Milk .....	272	11% deficient in fat .....	£1 fine & 10/6 costs
Sept. 24	Milk ... ..	349	6% deficient in fat.....	10/- fine & 10/6 costs
Nov. 12	Zinc Ointment B.P	392	83% deficient in zinc oxide .....	£3-3-0 fine £1-11-6 costs



## TUBERCULOSIS

It is satisfactory to be able to record a further decline in the death rate from tuberculosis, which in Birkenhead, as in the country as a whole, has fallen far below its former high place as a cause of death. Its effects, however, are still much too serious for there to be any justification for complacency. Apart from its human implications, it is the disease which causes the greatest economic loss, since its incidence is greatest among wage-earners between youth and middle age. In Birkenhead this year nearly 30% of deaths of persons between 15 and 45 years of age were due to tuberculosis.

As it has economic consequences, so also is it to a large degree the result of economic causes. Unsatisfactory housing and a low standard of living provide conditions in which tuberculosis takes ready root; and it is a matter for surmise whether there is likely to be a continued decline in its prevalence until in both these respects considerable improvements are effected. Anti-tuberculosis schemes have had material success in dealing with the results of poor economic circumstances; but the reduction in the incidence of tuberculosis—that is to say, its partial prevention—have been due in the main to changes for the better in the general standard of life. After all, an anti-tuberculosis scheme provides for many patients just those material conditions of existence which they do not normally enjoy—fresh air, sunlight, plenty of rest, a sufficiency of nourishing food; and such provision forms the greater part of treatment.

*After-care.*—The weak spot in the arrangements made for patients who have actually contracted the disease is the lack of adequate "after-care," or post-sanatorium treatment. By "treatment" is here meant not medical care, but the provision of satisfactory environmental, occupational, and nutritional conditions. If a patient has to return from sanatorium to a house where he gets an insufficient supply of sunlight and fresh air; to an unsuitable occupation, or perhaps to chronic unemployment; to economic conditions which do not permit of his obtaining a full ration of nourishing food—then the money spent by the local authority on his long spell of institutional treatment is almost certainly wasted.

More attention should be given to this question. In Birkenhead, contact is kept up between the ex-sanatorium patient and the clinic, and representations are made to the Estates Committee for favourable consideration to be given to any application he may need to make for a corporation house. But these applications are not always successful. Co-operation between the clinic and the Unemployment Assistance Board area office results in a certain number of the Board's applicants being granted the means to procure extra nourishment; in this connection the helpful interest shown by the Area Officer is gladly acknowledged.

*Dental treatment.*—A desirable addition to the Corporation's arrangements for dealing with tuberculosis would be the provision of dental treatment, including dentures, for patients before admission to sanatorium. The prejudicial effects upon health of dental caries make it especially important in the case of sufferers from tuberculosis that

such treatment should be available. Building up of bodily resistance to the disease cannot be achieved if the existence of bad teeth, or the difficulty of masticating food properly, continuously places obstacles in the way.

*Increased sanatorium accommodation.*—The provision of increased accommodation at the Cheshire Joint Sanatorium calls for consideration. Preference at present has to be given to cases in which the prospect of cure is greatest; these are patients in whom the disease is in the early stages or is moderately severe. Those in whom it is advanced, but not so far as not to offer some hope at least of arrest, can only be dealt with at the Municipal Hospital, where conditions are not so suitable for dealing with the disease. An increase in the number of sanatorium beds is therefore a real necessity.

*Surgical tuberculosis.*—The continuous decline in the incidence of surgical tuberculosis in children has led to changes in the type of tuberculous case dealt with at the Council's open-air institution at Thingwall, a larger number being children whom it was found desirable to keep under observation. A growing number of non-tuberculous orthopaedic cases has been admitted, particularly cases for which the recuperative influences of fresh air, rest and good food are especially valuable.

#### 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 Municipal Hospital.

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

(h) The provision of beds at the Birkenhead Municipal Hospital for intermediate, advanced, and observation cases of tuberculosis. (This provision is not made as an integral part of the Council's tuberculosis scheme.)

**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 1937 was 218—163 respiratory and 55 non-respiratory. in Table T 1 (page 23). The relatively high incidence during the year of lung tuberculosis in *males in later life* is strikingly shown in the graph on p. 25.

**Mortality.**—The total number of deaths, certified as due to tuberculosis, of patients who had previously been notified as suffering from the disease, was 110—96 respiratory and 14 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 16—14 respiratory and 2 non-respiratory.

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

Respiratory .....	110
Non-respiratory .....	16
	126

An analysis of the tuberculosis mortality for the past ten years will be found in Table T 2 (page 24).

An analysis of the tuberculosis mortality during 1937 with reference to age and sex will be found in Table T 3 (page 24).

**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 1937 was as follows:—

	Adults	Children (under 15 years of age)	Total
Respiratory .....			
Male .....	391	35	426
Female ...	321	33	354
Non-respiratory .....			
Male .....	52	183	235
Female ...	80	185	265
Total...Male .....	443	218	661
Female ...	401	218	619
Total	844	436	1280

## CASES DEALT WITH THROUGH THE TUBERCULOSIS CLINIC

**Attendances of patients at the clinic.**—During the year 2,132 examinations were made. Of these 799 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, 765 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 1937.**—Of the 218 new patients notified in 1937, 191 were examined at the clinic during the year. The remaining 27 were not referred to, did not attend at, or had been previously examined at, the clinic.

**Classification of new cases.**—The 491 new patients who attended during the year were classified as follows:—

		*Adults	Children	Total
Classed as suffering from respiratory tuberculosis	Male ...	71	2	73
	Female ...	39	4	43
Classed as suffering from other forms of tuberculosis	Male ...	3	8	11
	Female ...	9	10	19
Classed as non-tuberculous	Male ...	70	82	152
	Female ...	122	59	181
Classed as "suspect"	Male ...	1	3	4
	Female ...	5	3	8
Total...	Male ...	145	95	240
	Female ...	175	76	251
Total .....		320	171	491

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

**Examination of contacts.**—308 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	Male ...	3	—	3
	Female ...	4	—	4
Classed as suffering from other forms of tuberculosis	Male ...	—	—	—
	Female ...	1	1	2
Classed as non-tuberculous	Male ...	54	94	148
	Female ...	69	80	149
Classed as "suspect"	Male ...	—	1	1
	Female ...	—	1	1
Total...	Male ...	57	95	152
	Female ...	74	82	156
Total .....		131	177	308

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

### HOME VISITING; DISINFECTION; COMPULSORY TREATMENT; ETC

During the year the health nurses paid 230 first visits and 2,682 re-visits to the homes of patients.

The number of houses disinfected after death or removal of patients was 97.

Sputum 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, 1936 (Sect. 172).

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 34 patients in the Sanatorium. There were 70 admissions during the year. These were classified as follows:—

Tuberculosis of bones and joints .....	6
„ abdominal glands or peritoneum .....	6
„ cervical and other glands .....	8
„ other organs .....	1
For observation and diagnosis .....	49

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

Disease quiescent .....	14
Improved .....	10
Found after observation not to be suffering from tuberculosis .....	41

There were 39 patients under treatment at the end of the year.

During the year the thousandth case was admitted to the Sanatorium.

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

**Treatment.**—Cod liver oil has now been displaced by one of the vitamin A and D preparations with equally good results. The administration of drugs is kept to a minimum.

### 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 50 Birkenhead patients were admitted, 49 were discharged, and 1 died; 32 patients remained under treatment at the end of the year.

	Men	Women	Children (under 15)	Total
In Sanatorium January 1, 1937 .....	17	15	—	32
Admitted during year.. .....	31	17	2	50
Discharged or left Sanatorium during year	31	18	—	49
Died in Sanatorium.....	—	1	—	1
In Sanatorium December 31, 1937 ...	17	13	2	32

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 ... ..	—	—	—	—	—	—	—	—	—	—
	Improved ... ..	1	—	—	—	3	5	2	2	6	7
	No material improvement	1	—	1	—	—	—	—	1	2	1
	Died ... ..	—	—	—	—	—	—	—	—	—	—
T.B. plus Group I.	Quiescent ... ..	—	—	—	—	—	—	—	—	—	—
	Improved ... ..	1	—	2	—	2	1	2	1	7	2
	No material improvement	1	—	—	1	—	—	—	—	1	1
	Died ... ..	—	—	—	—	—	—	—	—	—	—
T.B. plus Group II.	Quiescent ... ..	—	—	—	—	—	—	—	—	—	—
	Improved ... ..	4	—	—	1	3	1	2	3	9	5
	No material improvement	—	—	1	1	1	—	1	—	3	1
	Died ... ..	—	—	—	1	—	—	—	—	—	1
T.B. plus Group III.	Quiescent ... ..	—	—	—	—	—	—	—	—	—	—
	Improved ... ..	—	—	1	—	1	—	1	—	3	—
	No material improvement	—	—	—	—	—	—	—	—	—	—
	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.

NOTE.—One female adult was admitted for observation and discharged as non-tuberculous after one month's treatment in Sanatorium.

### LEASOWE HOSPITAL

There were 5 cases in hospital at the beginning of the year; 2 new cases have been admitted during the year, and 3 have been discharged; leaving 4 patients in hospital at the end of December.

The localisation of the disease in the 7 patients under treatment was as follows:—

Tuberculosis of hip .....	6
„ peripheral glands .....	1
	—
	7
	—

The 3 cases discharged or died were as follows:—

Tuberculosis of hip .....	3 quiescent
---------------------------	-------------

## BIRKENHEAD MUNICIPAL HOSPITAL

Dr. Foster, Clinical Tuberculosis Officer, has acted as Consultant Physician (Tuberculosis) to the Municipal Hospital throughout the year. He visits the hospital regularly, sees patients suffering from tuberculosis and advises treatment, etc.

Details of the methods of treatment used were given in my annual report for 1933.

A Continuation Clinic at the hospital was opened during 1934, and accommodation is provided for persons requiring artificial pneumothorax treatment.

**Artificial pneumothorax treatment.**—During 1937, 1,056 refills were given by Dr. Foster, including 6 primary inductions. This represents an increase of 18 refills over those given during 1936, and 17 less primary inductions. There were 926 screenings performed during the year.

**X-ray examinations.**—During the year 503 patients were sent from the Tuberculosis Clinic for X-ray examination at the Municipal Hospital, an increase of 98 over the number X-rayed during 1936.

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—Male .....	—	—	1	—	8	9	16	19	23	16	3	95
Female .....	—	1	—	3	10	14	15	12	7	3	3	68
Non-respiratory—Male .....	—	8	6	2	3	1	2	—	—	2	1	25
Female .....	—	6	9	—	4	3	6	2	—	—	—	30
Total .....	—	15	16	5	25	27	39	33	30	21	7	218



TABLE T 2

Deaths from tuberculosis during the past ten years

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Deaths from tuberculosis of the lungs—										
Number .....	150	164	141	144	140	140	108	96	118	110
<b>Rate per 1000</b>	0.95	1.04	0.89	0.97	0.95	0.93	0.72	0.64	0.79	0.76
A Male—										
Number .....	82	93	83	83	72	86	62	68	63	54
Rate .....	0.52	0.58	0.52	0.55	0.48	0.57	0.41	0.45	0.43	0.37
B Female—										
Number.....	68	71	58	61	68	54	46	28	55	56
Rate .....	0.43	0.46	0.36	0.42	0.46	0.36	0.30	0.19	0.37	0.38
Deaths from other forms of tuberculosis—										
Number .....	43	39	29	36	29	22	28	13	12	16
<b>Rate per 1000</b>	0.27	0.24	0.18	0.24	0.19	0.14	0.18	0.09	0.0	0.11
A Male (all ages)										
Number .....	28	18	11	17	15	10	11	7	6	7
Rate .....	0.18	0.11	0.06	0.11	0.10	0.06	0.07	0.05	0.04	0.04
B Female (all ages)										
Number .....	15	21	18	19	14	12	17	6	6	9
Rate .....	0.09	0.13	0.11	0.13	0.09	0.08	0.11	0.04	0.04	0.06
C Children (un. 5 yrs)										
Number .....	21	19	8	22	6	7	8	2	1	5
Rate .....	0.13	0.12	0.05	0.14	0.04	0.04	0.05	0.01	0.00	0.03
Deaths from tuberculosis (all forms)—										
Number .....	193	203	170	180	169	162	136	109	130	126
<b>Rate per 1000</b>	1.22	1.29	1.07	1.21	1.14	1.08	0.90	0.73	0.88	0.86
<i>Rate per 1000</i> <i>England &amp; Wales</i>	0.93	0.96	0.89	0.89	0.83	0.82	0.76	0.72	0.68	0.69

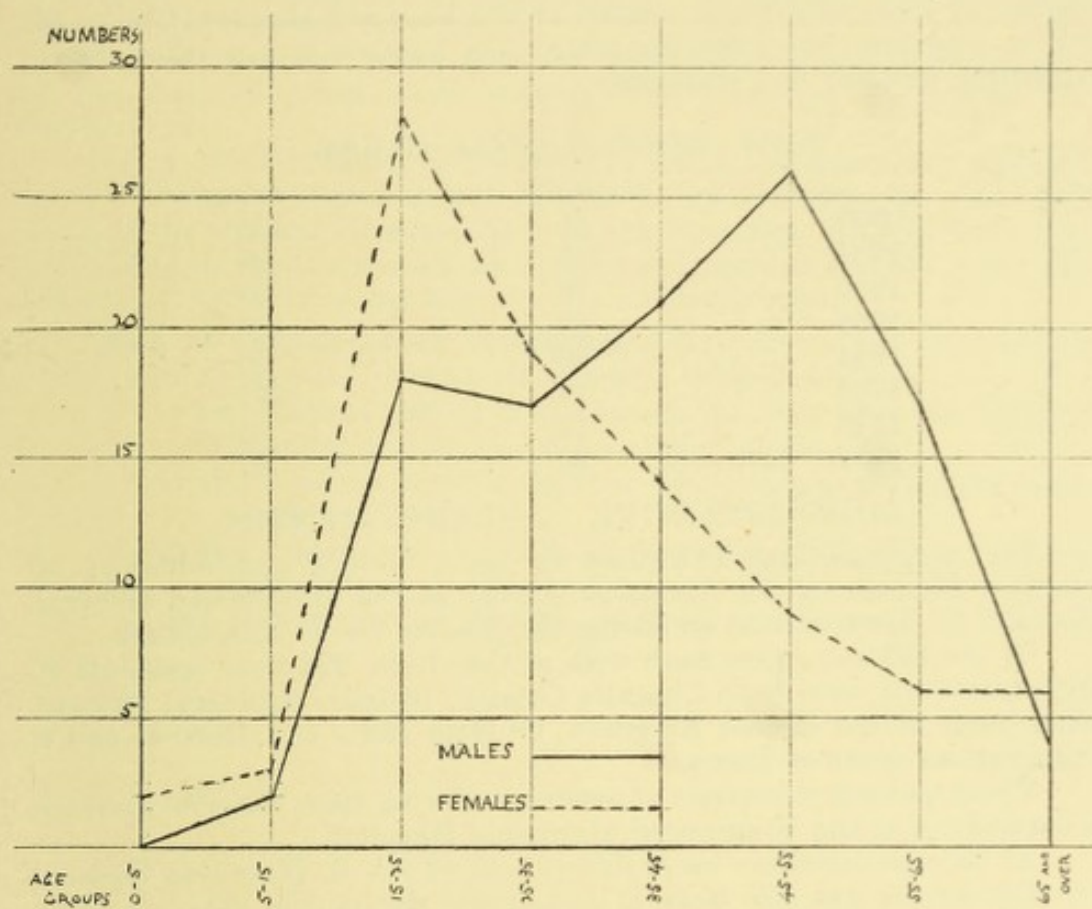
TABLE T 3

New cases and mortality during 1937

Ages	*NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0.....	—	—	—	—	—	—	—	—
1.....	—	2	8	8	—	3	3	2
5.....	2	—	8	9	1	—	2	1
10.....	—	3	2	—	—	1	1	—
15.....	8	11	3	4	2	7	—	3
20.....	10	17	1	4	6	10	—	1
25.....	17	19	2	6	8	14	1	—
35.....	21	14	—	2	7	6	—	—
45.....	26	9	—	—	12	5	—	—
55.....	17	6	2	—	15	6	—	1
65 and upwards.....	4	6	1	1	3	4	—	1
Totals.....	105	87	27	34	54	56	7	9

\* 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.

The subjoined graph shows the number of cases of pulmonary tuberculosis at various ages who were notified during 1937 :



## VENEREAL DISEASES

There has been during recent years a fairly steady decline in the number of cases of syphilis treated at the Venereal Diseases Clinic, as will be seen from the following table; the number of gonorrhœa cases remaining more or less stationary.

### NEW BIRKENHEAD CASES

	Syphilis.	Gonorrhœa.
1930 .....	86	125
1931 .....	105	96
1932 .....	76	99
1933 .....	67	100
1934 .....	68	90
1935 .....	54	81
1936 .....	53	83
1937 .....	38	87

### ADMINISTRATIVE ARRANGEMENTS

The diagnosis and treatment of cases (males and females) of venereal diseases at the Municipal Clinic at the Birkenhead General Hospital has been carried on during the year by Dr. E. Blackstock.

Of the 419 new cases dealt with at the clinic, 222 were residents of Birkenhead, 61 were from Cheshire County, 16 from Wallasey, 16 from other parts of the United Kingdom, 98 from India and Burma, and 6 from various parts of Europe.

The in-patient treatment of persons suffering from venereal diseases is carried out at the Birkenhead Municipal Hospital.

At the special clinic for children held at No. 9, Hamilton Square, Dr. Blackstock has also been in attendance during the year. At this clinic the number of new cases seen during the year was 41, the same as in 1936. None of these children was found to be suffering from venereal disease. It should be noted that in some cases children attended with their mothers at the General Hospital clinic. The attendances numbered 552 as compared with 688.

### GENERAL NOTES

**Cases dealt with.**—(a) General Hospital clinic.—During the year 795 persons, comprising 577 males and 218 females, were dealt with at the clinic as out-patients.

This represents a decrease of 8 males and a decrease of 38 females as compared with the respective numbers for 1936.

The total attendances of out-patients was 12,803, 3,626 being in respect of non-Birkenhead residents. The number of in-patient days was 120.

New patients numbered 319 males and 100 females; of these 197 were non-residents of Birkenhead. As is usual in seaports sailors of many nationalities were treated at the clinic. Natives of Germany, France, Finland, India and Burma attended during the year.

(b) Hamilton Square clinic.—During the year 80 children (45 males and 35 females) were dealt with at the clinic as out-patients, the total attendances made being 552.

The new cases seen numbered 41, and were diagnosed as follows:—

No venereal disease ..... 41

**Bacteriological work.**—(a) 1,084 smears were examined at the municipal laboratory for the presence of gonococci, and 13 specimens for the detection of *treponema pallida* were examined at the municipal clinic at the General Hospital.

Lumbar puncture was performed on 15 patients and 30 specimens of the fluid obtained were sent to the Liverpool University for examination.

(b) At the University of Liverpool, 1,891 specimens were examined for the Wasserman reaction, 616 of these being sent from the municipal clinic at the General Hospital, 64 from the Hamilton Square clinic, and 1,211 from private medical practitioners and hospitals in the area; and 164 serum tests for gonorrhœa were also carried out.

**Issue of arsenobenzene compounds.**—Arsenobenzene compounds were issued during the year by the Medical Officer of Health

to the Medical Officer of the treatment centres at the General Hospital and at No. 9 Hamilton Square;

to the Medical Superintendent, Birkenhead Municipal Hospital;

to the Diseases of the Skin Department, Birkenhead General Hospital;

and to 2 approved general medical 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		Gonorrhœa		Conditions other than venereal		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T.T.
1. Number of cases on 1st January under treatment or observation	100	75	9	—	98	24	11	6	218	105	323
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	5	9	—	—	8	1	—	—	13	10	23
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	13	—	—	—	—	—	—	—	13	—	13
" secondary	4	—	—	—	—	—	—	—	4	—	4
" latent in 1st year of infection	2	—	—	—	—	—	—	—	2	—	2
" all later stages	38	19	—	—	—	—	—	—	38	19	57
" congenital	1	5	—	—	—	—	—	—	1	5	6
Soft chancre	—	—	11	—	—	—	—	—	11	—	11
Gonorrhœa, 1st year of infection	—	—	—	—	111	29	—	—	111	29	140
" later	—	—	—	—	36	9	—	—	36	9	45
Conditions other than venereal	—	—	—	—	—	—	103	38	103	38	141
4. Number of cases dealt with for the first time during the year under report known to have received treatment for the same infection, or to have been under observation at other centres	7	2	2	—	15	1	3	—	27	3	30
Total of Items 1, 2, 3 and 4	170	110	22	—	268	64	117	44	577	218	795
5. Number of cases discharged after completion of treatment and final tests of cure or after diagnosis as non-venereal	—	1	2	—	26	5	87	32	115	38	153
6. Number of cases which ceased to attend before completion of treatment and were, on first attendance, suffering from—											
Syphilis, primary	3	—	—	—	—	—	—	—	3	—	3
" secondary	3	3	—	—	—	—	—	—	3	3	6
" latent in 1st year of infection	—	—	—	—	—	—	—	—	—	—	—
" all later stages	15	34	—	—	—	—	—	—	15	34	49
" congenital	—	4	—	—	—	—	—	—	—	4	4
Soft chancre	—	—	1	—	—	—	—	—	1	—	1
Gonorrhœa, 1st year of infection	—	—	—	—	38	17	—	—	38	17	55
" later	—	—	—	—	9	8	—	—	9	8	17
7. Number of cases which ceased to attend after completion of treatment but before final tests of cure	3	10	2	—	23	3	—	—	28	13	41
8. Number of cases transferred to other centres or to institutions, or to care of private practitioners	55	2	11	—	68	2	29	4	163	8	171
9. Number of cases remaining under treatment or observation on 31st December	91	56	6	—	104	29	1	8	202	93	295
Total of Items 5, 6, 7, 8 and 9	170	110	22	—	268	64	117	44	577	218	795

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

TABLE V I—(continued)

	Syphilis		Soft Chancre		Gonorrhoea		Conditions other than venereal		Totals			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Tls.	
10. Number of cases in the following stages of syphilis included in Item 6 which failed to complete one course of treatment—												
Syphilis, primary .....	1	—	—	—	—	—	—	—	1	—	1	
„ secondary .....	—	1	—	—	—	—	—	—	—	1	1	
„ latent in 1st year of infection.....	—	—	—	—	—	—	—	—	—	—	—	
„ all later stages ...	3	10	—	—	—	—	—	—	3	10	13	
„ congenital .....	—	2	—	—	—	—	—	—	—	2	2	
11. Number of attendances—												
(a) For individual attention of the medical officers .....	1196	1211	47	—	1782	439	419	317	3444	1967	5411	
(b) For intermediate treatment, e.g. irrigation, dressing.....	46	47	9	—	6163	633	310	184	6528	864	7392	
Total attendances...	1242	1258	56	—	7945	1072	729	501	9972	2831	12803	
12. In-patients—												
(a) Total number of persons admitted for treatment during the year .....	—	—	—	—	6	—	—	—	6	—	6	
(b) Aggregate number of "in-patient days" of treatment given.....	—	—	—	—	120	—	—	—	120	—	120	
3. Number of cases of congenital syphilis in item 3 above classified according to age periods												
	Under 1 year		1 and under 5 years		5 and under 15 years		15 years and over		Totals			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
	—	—	—	1	—	1	1	3	1	—	5	

	Arsenical		Mercury	Bismuth
	Approved Arsenobenzene Compounds	Others		
14.—				
(a) Names of chief preparations used in the treatment of syphilis ...	Stabilarsan Kharsulphan Neokharsivan Novostab	Tryparsamide Acetylarsan		Bisoxyl Quinostab
(b) Total number of injections given (out-patients and in-patients)	900	486	—	1637

	Microscopical		Cultural for Gonorrhœa	Serum		Cerebral Spinal Fluid	Others for Diagnosis of Venereal Disease
	For Syphilis	For Gonorrhœa		For Syphilis	For Gonorrhœa		
15.—							
Pathological Work:							
(a) Number of specimens examined at, and by the Medical Officer of, the Treatment Centre ...	13	1084	—	—	—	—	—
(b) Number of specimens from patients attending at the Treatment Centre sent for examination to an approved laboratory ...	—	—	—	616	164	15	—





## 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 1937:  
showing seasonal incidence

Disease	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Smallpox .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet fever .....	39	24	14	27	26	35	19	26	40	58	68	62	438
Diphtheria and membra- nous croup .....	38	48	55	46	68	50	41	25	40	56	68	72	607
Erysipelas .....	3	5	5	9	8	5	4	6	3	7	10	18	83
Typhus fever .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid fever .....	2	—	1	—	—	—	—	4	—	4	—	1	12
Continued fever.....	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing fever .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal meningitis	—	—	—	2	—	2	1	—	—	—	—	1	6
Encephalitis lethargica (acute).....	—	—	—	—	—	—	—	—	—	—	—	—	—
Polio-encephalitis (acute)	—	—	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis (acute)....	—	—	—	1	—	—	—	—	—	—	—	—	1
Puerperal pyrexia .....	3	2	1	4	—	1	3	2	—	3	3	1	23
Puerperal fever .....	—	1	—	2	—	—	—	—	2	—	—	—	5
Ophthalmia neonatorum	—	1	—	1	—	—	—	—	1	—	2	1	6
Cholera .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia .....	87	57	27	26	13	9	9	14	12	7	10	26	291
Malaria .....	1	3	—	—	1	—	—	—	—	1	—	1	7
Dysentery .....	—	—	—	—	—	—	—	—	—	—	—	1	1
Totals .....	173	141	103	112	116	102	77	77	98	136	161	184	1480

TABLE I 2

Infectious diseases other than tuberculosis notified during 1937 :  
showing ages

Disease	and 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 .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet fever .....	2	12	17	33	45	221	66	13	21	3	5	—	438
Diphtheria and membra- nous croup .....	13	19	36	42	48	247	87	52	53	9	1	—	607
Erysipelas .....	—	3	2	1	1	2	2	1	16	14	32	9	83
Typhus fever .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid fever .....	—	—	—	—	—	1	4	1	2	3	1	—	12
Continued fever .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing fever .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal meningitis	2	—	—	1	—	1	—	—	1	—	1	—	6
Encephalitis lethargica (acute).....	—	—	—	—	—	—	—	—	—	—	—	—	—
Polio-encephalitis (acute)	—	—	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis (acute) .....	—	1	—	—	—	—	—	—	—	—	—	—	1
Puerperal pyrexia .....	—	—	—	—	—	—	—	1	18	3	1	—	23
Puerperal fever .....	—	—	—	—	—	—	—	—	4	1	—	—	5
Ophthalmia neonatorum	6	—	—	—	—	—	—	—	—	—	—	—	6
Cholera .....	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia.....	14	19	8	9	5	29	14	24	46	20	72	31	291
Malaria .....	—	—	—	—	—	—	—	—	2	2	3	—	7
Dysentery .....	—	—	—	—	—	—	—	—	—	—	1	—	1
Totals .....	37	54	63	86	99	501	173	92	163	55	117	40	1480

**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
Scarlet fever .....	3.01	2.33
Diphtheria .....	4.17	1.49
Enteric fever .....	0.08	0.05
Erysipelas .....	0.57	0.37
Pneumonia .....	2.00	1.36

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

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

Four cases of smallpox were notified in England during the year; the patients recovered.

## DISINFECTION

**Books.**—194 Public Library books were collected from infected houses and disinfected.

**Dwellings.**—580 house-disinfecting notices were served; 849 houses or parts of houses were disinfected during the year.

**Bedding and clothes.**—Infected bedding and clothes were collected from 837 dwellings and disinfected. In 17 further cases infected or discarded bedding and clothes were destroyed.

**Visits and revisits paid to houses, etc., by the Infectious Diseases Inspector.**—2,515 visits and revisits to property were made during the year in connection with disinfection after infectious diseases (including tuberculosis).

## VACCINATION

**Public vaccination.**—Information relative to the number of persons successfully vaccinated and re-vaccinated at the cost of the rates by the Public Vaccinators and by the Medical Superintendent of the Birkenhead Municipal Hospital and Public Assistance Institution during the year ended 30th September, 1937, 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 North	Dr. H. C. Pierce .....	544	3	547	6
Birkenhead South	Dr. R. W. L. Pearson ...	424	2	426	14
Birkenhead Municipal Hospital and Institution .....	Dr. R. A. Grant ... ..	4	1	5	1
Totals ..		972	6	978	21

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, 1936, inclusive, viz.:—

	Birkenhead South	Birkenhead North	Whole Borough
No. of births .....	1,251	1,357	2,608
Successfully vaccinated .....	696	690	1,386
Insusceptible of vaccination .....	7	10	17
Had smallpox.....	—	—	—
Number in respect of whom statutory declarations of conscientious objection have been received .....	360	413	773
Died unvaccinated .....	65	61	126
Postponements, removals, or cases not found, etc. ....	116	68	184
Total No. of certificates and copies of certificates of successful primary vaccination of children under 14 received during the calendar year <b>1937</b> .....	672	680	1,352
No. of statutory declarations of conscientious objection actually received by the Vaccination Officers irrespective of the dates of birth of the children to which they relate during the calendar year <b>1937</b> .....	403	433	836
No. of cases successfully vaccinated after the declaration of conscientious objection had been made .....	—	2	2
No. of copies of certificates of successful primary vaccination sent to Vaccination Officers of other districts during <b>1937</b> ...	20	24	44

**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 7 medical practitioners, in respect of 16 patients; a total of 244,000 units was given out.

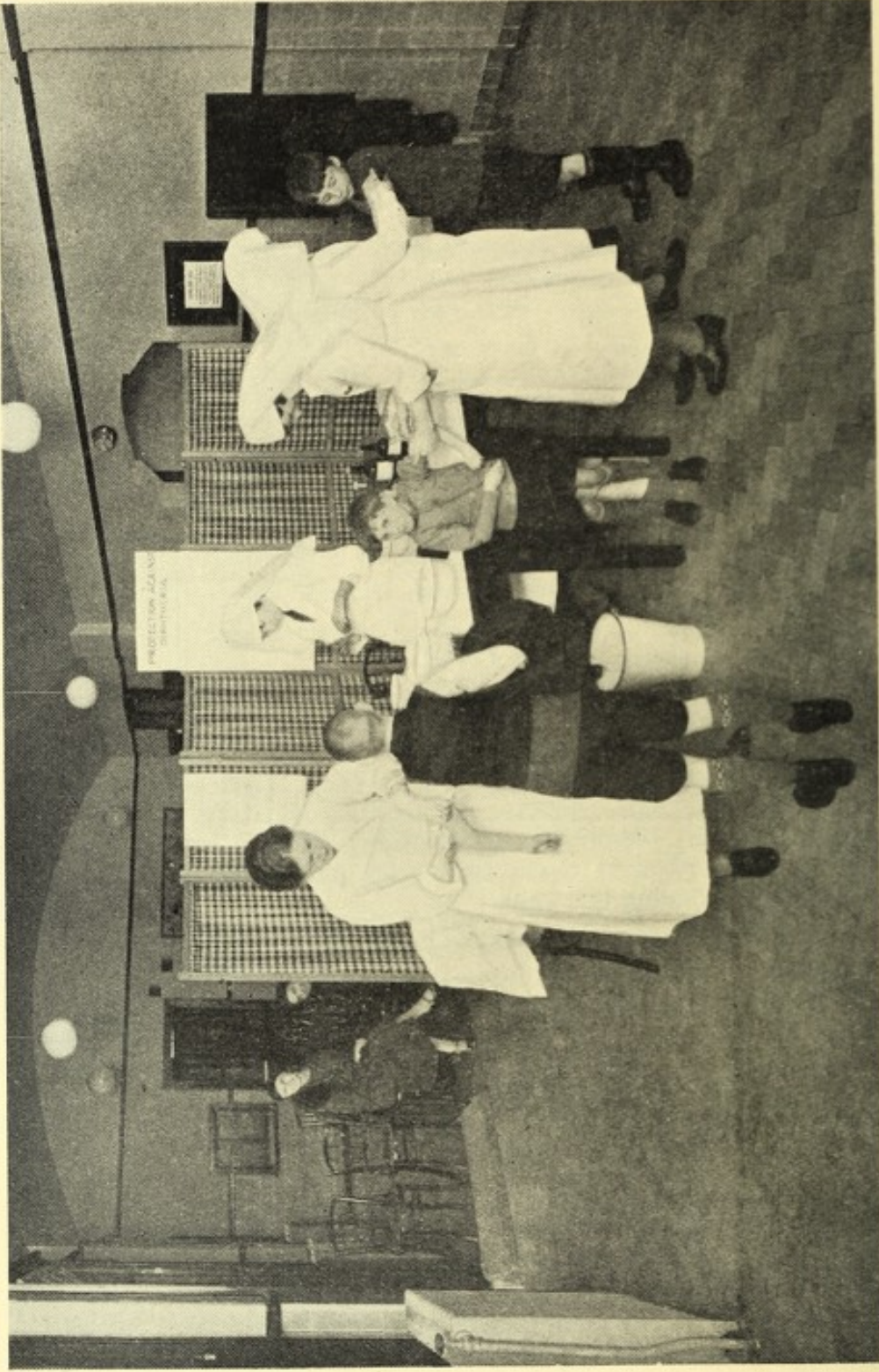
#### IMMUNISATION AGAINST DIPHTHERIA.

##### (a) Children attending Infant Welfare Clinics

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, 1937, 73 children were presented at the various clinics for the first of a course of immunising injections. Of these, 67 completed the course before the end of the year, 4 had 2 injections, and 2 had 1 injection. In addition, 3 children whose treatment was commenced in 1936 were given their final injections, making a total of 70 children completing the course in 1937.

Children who have received less than 3 injections cannot be said to have full opportunity of complete immunisation. Experience



Immunisation against diphtheria

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 1937 are set out below:—

Clinic	1 injection	2 injections	3 or more injections	Total	1936 cases completed	Total
Hamilton Square .....	—	2	7	9	—	9
North .....	—	1	16	17	—	17
South .....	1	1	24	26	3	29
Mount Grove .....	1	—	20	21	—	21
Totals .....	2	4	67	73	3	76

### (b) Children attending schools in the Borough

The immunisation against diphtheria of children attending school has been continued during the year at the school clinics, but no special sessions were held at the clinics or in the schools.

The following table shows the work done during the year :—

Place where immunisation was carried out	No. of children who received			Total	1936 cases completed	Total
	1 injection	2 injections	3 or more injections			
North Health Clinic .....	1	1	20	22	1	23
South Health Clinic .....	—	—	7	7	2	9
Hamilton Square Clinic...	2	1	16	19	—	19
Totals.....	3	2	43	48	3	51

### (c) Staff, patients, etc., at the Isolation Hospital

The immunisation of members of the staff at the Isolation Hospital, and of patients admitted suffering from diseases other than diphtheria, has been continued. In addition, other children (*e.g.*, the brothers and sisters of patients) have been immunised at the request of parents. There was a material increase in the number of these as a result of the increase in the number of cases of diphtheria. The following table shows the work done at the hospital during the year 1937. This work is also carried on at the school and child welfare clinics.

	1 injection	2 injections	3 or more injections	Total	1936 cases completed	Total
Staff .....	...	...	1	1	...	1
Patients } Over 15.....	...	...	6	6	...	6
	... 15 & under.....	2	172	174	4	178
Totals .....	...	2	179	181	4	185

(It is now the practice at the hospital to immunise patients and the members of the staff irrespective of Schick testing.)

## 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 1937 the Society's nurses paid 1,176 visits in respect of 82 cases.

## INFECTIOUS DISEASES HOSPITAL

**Cases treated during 1937.**—At the beginning of the year there were 86 patients in the Infectious Diseases Hospital.

During the year there were 944 patients admitted to the wards, so that the total number of cases treated during 1937 was 1,030. The total number of in-patient days was 28,937.

There were 896 discharges and 34 deaths during the year; leaving 100 patients in hospital on 31st December, 1937.

An analysis of the cases admitted is given 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.	18	137	1	146	8
.....F.	9	172	2	164	15
Diphtheria.....M.	29	303	13	283	36
.....F.	30	302	12	281	39
Enteric fever .....M.	...	4	...	3	1
.....F.	...	2	...	2	...
Cerebro-spinal fever .....M.	...	3	1	1	1
.....F.	...	2	2	...	...
Erysipelas .....M.	...	2	1	1	...
.....F.	...	4	...	4	...
Measles .....M.	...	1	...	1	...
.....F.	...	3	1	2	...
Whooping cough .....M.	...	2	...	2	...
.....F.	...	6	1	5	...
Other diseases .....M.	...	1	...	1	...
.....F.	...	...	...	...	...
Totals .....	86	944	34	896	100

**Diphtheria.**—The type of diphtheria was moderately severe throughout the year. The value of immunisation has been strikingly demonstrated — the percentage of previously immunised patients admitted with true diphtheria was fractional.

Of 605 cases admitted to the diphtheria wards, 432 were finally diagnosed as suffering from diphtheria.

Of the remainder 18 were "carriers" and 155 were found to be suffering from diseases other than diphtheria or from no disease. The corrected diagnoses of these cases were as follows: Tonsillitis (127), laryngitis (7), quinsey (1), asthma (1), empyema (1), cancer (1), rhinitis (5), measles (2), scarlet fever (4) and no disease 5.

There were 25 deaths ascribed to diphtheria. The mortality calculated on actual clinical cases (including those in hospital at the beginning of the year) was 5.1.

Of the cases found not to be suffering from diphtheria, one, suffering from pneumonia and empyema, died.

Of the 25 cases dying of diphtheria, 3 died within 24 hours of admission.

39 cases were admitted suffering from laryngeal obstruction. Of these 4 died. The operation of tracheotomy was performed in 13 of these cases.

*Duration of illness before admission to hospital.*—The average duration of illness before admission was 3 days.

*Days in hospital.*—The length of stay in days of cases diagnosed as suffering from diphtheria who were discharged during the year is indicated below:—

Under 10	10-15	16-20	21-25	26-30	31-35	36-40	41-60	61-80	81-100	Over 100
2	7	9	25	48	46	58	84	34	11	6

The average length of stay was 39.5 days.

Table showing age and sex of patients admitted during the year as suffering from diphtheria:

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 or still in Hospital	M.	10	12	21	25	29	120	43	15	10	4	1	290
	F.	6	7	9	13	15	118	49	36	39	6	1	290
Died .....	M.	1	1	3	...	...	8	...	...	...	...	...	13
	F.	...	1	3	2	...	4	1	...	1	...	...	12
Totals ...		17	21	36	40	44	250	93	51	41	10	2	605



**Scarlet fever.**—There was no alteration in the type of scarlet fever as compared with the preceding year; the disease being mild in character. 3 deaths occurred from the disease in the hospital.

During the year there were 309 cases admitted to the hospital notified as suffering from scarlet fever. The diagnosis was confirmed in 296 cases. The addition of 4 cases erroneously diagnosed as suffering from diphtheria brings the total to 300.

The corrected diagnoses in the 13 mis-diagnosed cases were as follows: Tonsillitis (4), erythema (5), pneumonia (1) and no disease (3).

There was 1 death from scarlet fever, the case mortality being 0.33 per cent.

The following are the principal complications which were noted:—

Late adenitis .....	14 cases or 4.5 per cent.
Arthritis .....	3 ,, 1.0 ,,
Otorrhoea .....	23 ,, 7.6 ,,
Tonsillitis .....	4 ,, 1.2 ,,

In two cases mastoid operations were performed.

*Days in hospital.*—The length of stay in days of cases diagnosed as suffering from scarlet fever who were discharged during the year is indicated below:—

6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-50	51-60	61-80	Over 80
1	2	46	121	64	24	10	15	8	8	5

The average length of stay was 27.2 days.

Table showing age and sex of patients admitted during the year as suffering from scarlet fever :

Age-period in years		0-1	1+	2+	3+	4+	5-9	10-14	15-19	20-29	30-39	40+	Totals
		yrs.	yrs.	yrs.	yrs.	yrs.	yrs.	yrs.	yrs.	yrs.	yrs.	yrs.	
Recovered or still in Hospital	M.	1	3	7	11	15	70	19	4	4	2	...	136
	F.	...	4	4	14	18	91	23	6	6	3	1	170
Died .....	M.	1	...	...	...	...	...	...	...	...	...	...	1
	F.	...	...	...	...	1	1	...	...	...	...	..	2
Totals ..		2	7	11	25	34	162	42	10	10	5	1	309

During the year the practice of restricting the administration of antitoxin serum to severe and complicated cases has been continued.

**Measles.**—4 cases were admitted during the year. The diagnosis was confirmed in 2 cases. There was 1 death from chorea and endocarditis. One case developed double otorrhoea; of the others 1 was diagnosed as rubella and 1 as pyrexia of unknown origin.

**Erysipelas.**—There were 6 cases admitted to the wards notified as suffering from erysipelas. The diagnosis was confirmed in 2 of the cases. Of the other cases 1 suffered from a septic foot, 2 from cellulitis and 1 from streptococcal septicaemia. The latter patient (male, aged 37) died.

**Enteric fever.**—The diagnosis of enteric fever was confirmed in 6 cases admitted to the wards notified as suffering from this disease.

The infecting organism in 5 cases was paratyphosus B.; in the other it was B. Typhosus. All the cases recovered.

**Other diseases—Whooping cough.**—There were 8 patients admitted to the wards as suffering from whooping cough, the diagnosis being confirmed in 5 cases; of the remaining cases 2 were diagnosed as suffering from bronchitis and the other from broncho-pneumonia. One patient died from whooping cough.

**Cerebro-spinal meningitis.**—5 cases were admitted as suffering from cerebro-spinal meningitis. Of these 3 were finally diagnosed as cerebro-spinal meningitis, the others as pneumococcal meningitis and pneumonia respectively. All the cerebro-spinal meningitis patients died.

**Anthrax.**—1 case was admitted as suffering from anthrax, but was finally diagnosed as a case of whitlow.

**Rubella.**—1 case admitted as measles was diagnosed as rubella.

**Hospital accommodation.**—The lack of adequate cubicle accommodation at the hospital imposed an undue strain upon the medical and nursing staff. During the year approval was given by the Ministry of Health for the provision of an additional cubicle pavilion, and it is expected that building will be begun in 1938.

The prevalence of diphtheria made it necessary to restrict the admission of cases of scarlet fever.

**Staff.**—Throughout the year Dr. R. Sandilands acted as Resident Medical Officer, and was in full clinical charge of all patients. The general health of the staff was satisfactory. Tests for susceptibility to scarlet fever were unnecessary, as all newcomers to the staff had already had the disease.

**Training of nurses.**—Courses of instruction for the examinations of the General Nursing Council have been maintained continuously throughout the year. 5 nurses presented themselves for the final examination in 1937, 4 of them passing. 3 nurses sat for the preliminary examination, 2 of them passing.

**E. P. Smith memorial fund.**—2 patients received assistance from this fund during the year.

**CANCER**

The Minister of Health requests that a detailed statement should be furnished as to the facilities available in, or for, the area for the diagnosis and treatment of cancer, together with the deaths from cancer shown by age distribution.

Leaflets stressing the importance of securing early treatment are distributed from time to time at the various clinics maintained by the Local Authority.

By arrangement with the departments concerned, all Corporation employees whose work brings them constantly into close contact with tar or certain of its derivatives are examined quarterly by the Assistant Medical Officers with the object of securing early treatment of epitheliomatous cancer should this be diagnosed.

Patients suffering from cancer are admitted to the Birkenhead Municipal Hospital, Church Road, Birkenhead. Operative facilities are provided but there are no facilities for deep X-Ray therapy or for treatment by radium.

There is no out-patient department at the hospital, but there is a Continuation Clinic which is used for "follow up" cases.

No arrangements have been made by the Council, under a specific agreement or otherwise, for treatment at other hospitals of cancer patients for whom adequate treatment facilities are not available in the Municipal Hospital. Suitable cases for X-radiation and radium are, however, referred through their own medical practitioners to the Radium Institute, Liverpool.

Below is a table showing the number of Birkenhead residents dealt with in the Municipal Hospital during the year :—

SITES	Patients admitted after previous advice or treatment at another hospital providing operative but not radiation treatment Total number ... 6		Patients admitted after previous advice or treatment at another hospital providing operative but not radiation treatment Total number ... 94	
	(a) Not treated at that hospital	(b) Numbers referred for advice and/or treatment to a hospital providing radiation treatment	(a) Numbers retained in Council's hospital	(b) Numbers referred for advice and/or treatment to :— (i) Hospital providing operative treatment (ii) Hospital providing radiation as well as operative treatment
Uterus.....	4	...	2	1
Tongue and Mouth..	1	...	2	...
Breast.....	3	1	6	...
Lip.....	...	...	...	...
Skin.....	3	...	3	...
Larynx.....	2	...	1	...
Bladder.....	...	...	1	...
Rectum.....	...	1	9	...
Other sites.....	4	2	69	...
Total.....	17	3	93	1

The number of deaths from cancer of Birkenhead residents during the year, classified according to age and sites of the disease, is shown below:—

SITES	0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65+	Total
Buccal Cavity and Pharynx .....	...	...	...	...	...	...	...	...	2	8	4	14
Digestive Organs and Peritoneum .	...	...	...	...	2	...	7	9	35	36	49	138
Respiratory Organs.....	...	...	...	...	...	...	1	1	9	9	5	25
Uterus .....	...	...	...	...	...	...	...	3	6	4	1	14
Other Female Genital Organs .....	...	...	...	...	...	...	...	...	2	3	2	7
Breast .....	...	...	...	...	...	...	1	...	3	10	9	23
Male Genito-Urinary Organs.....	...	...	...	...	...	...	...	1	3	3	7	14
Other or Unspecified Organs .....	...	...	...	1	...	...	...	1	2	3	10	17
Total.....	...	...	...	1	2	...	9	15	62	76	87	252

The following table shows the cancer death-rate in Birkenhead since 1921 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
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
1933	151,060	208	138	153
1934	150,100	235	156	156
1935	149,400	235	157	158
1936	148,000	241	163	162
1937	145,500	252	173	163

This table shows a steady increase in the number of deaths recorded annually as due to cancer. While this increase is probably associated with some increase in the cancer risk at all ages, it must be remembered firstly that many cases of the disease which in earlier years went unrecognised are now recorded as a result of improved methods of diagnosis; and secondly that a larger proportion of people are now living into the later age-periods—that is, into the age-periods where cancer is more prevalent.

Many types of cancer are now much more curable than formerly, provided treatment is applied early. The importance of obtaining medical advice as soon as any doubtful symptoms occur cannot be overstressed.

## 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 consists of Dr. Ritchie as Bacteriologist, three (one senior and two junior) laboratory assistants, and one clerk.

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

The bacteriological supervision of the Borough water supplies 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 careful observation.

In addition to the examinations carried out for the County Borough of Birkenhead, the work of the Laboratory now includes the bacteriology, biochemistry, and pathology for Clatterbridge (County) General Hospital and Leasowe Open-air Hospital, and the bacteriological examinations for the Bebington Urban Sanitary Authority.

### 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 1937 are shown in the following table :—

Examination	Total
Sputa for <i>B. tuberculosis</i> (380 positive) ... ..	2332
Cultures for <i>B. diphtheriæ</i> (1,013 positive) ... ..	6709
Diphtheria virulence tests (16 positive) ... ..	35
Blood tests (Widal) against enterica group, etc. (16 positive)	83
Urine for <i>B. typhosus</i> ... ..	1
Faeces for <i>B. typhosus</i> ... ..	1
Smears for gonococci (317 positive) ... ..	1116
General examinations (1) Bacteriology ... ..	4285
(2) Biochemistry ... ..	2112
(3) Pathology ... ..	2121
Vaccines issued ... ..	68
Milk, graded, bacterial counts of ... ..	176
Milk, samples for tubercle bacilli (24 positive) ... ..	211
Milk, human ... ..	6
Water ... ..	116
<b>Total</b> ... ..	<b>19372</b>

**Bacteriological examinations of water.**—Examinations of the Alwen water supply were carried out at the laboratory during the year; 87 complete bacteriological examinations were made, samples being taken from the mains, and from the Alwen reservoir before and immediately after filtration. In addition, 13 specimens from the public baths and 16 from other sources were examined.

**Bacteriological examination of milk.**—(a) *The general bacteriological examination of graded milks.*—During the year the regular bacteriological examination of graded milks was carried out. 176 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. These milks are :—

- (1) “Tuberculin Tested” and “Tuberculin Tested (Certified).”
- (2) “Accredited.”
- (3) “Tuberculin Tested (Pasteurised).”
- (4) “Pasteurised.”

These examinations are carried out for the Corporation, who grant the licences for the retailing of these classes of milk.

(b) *The general bacteriological examination of ungraded milk.*—Samples of ungraded 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.

The routine examination of ordinary milk is very valuable, inasmuch as it is this milk which forms the principal supply of a very large section of the community.

(c) *The examination of ungraded milk for tubercle bacilli.*—It was unfortunately found necessary to curtail still further this branch of the work, the number of samples which were examined falling from 324 in 1936 to 211.

Out of these 211 samples living tubercle bacilli were found in 24. Making due allowance from duplicates, this means that over *one in every ten contained living tubercle bacilli.* Such milk constitutes a grave source of danger to the public, especially to children, and the importance of carrying out bacteriological examination on as wide a scale as possible therefore should need no emphasis.

(d) *The examination of dried milk for tubercle bacilli.*—Samples of dried milk issued at the municipal clinics are periodically examined at the laboratory with a view to the detection of the presence of living tubercle bacilli.

The following routine procedure is followed with regard to the bacteriological examination of milk.

(a) *General bacteriological examination*

This consists 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.



1. *Graded liquid milks*

Each supply is examined twice in a year—once in the first half year and once in the second half year. In connection with pasteurised milk produced by a firm in the Borough, one sample is examined monthly.

2. *Ungraded liquid milks*

Samples are examined from time to time but not at regular intervals. It is intended that this work should be developed when adequate laboratory accommodation is provided.

(b) *Examination for tubercle bacilli*

This consists of an examination by biological experiment to ascertain whether living tubercle bacilli are present.

1. *Graded liquid milks*

Each supply is examined twice in a year—once in the first half year and once in the second half year. In connection with pasteurised milk produced by a firm in the Borough, one sample is examined monthly.

2. *Ungraded liquid milks*

Milk from each source of supply is examined twice in a year—once in the first half year and once in the second half year.

3. *Dried milks*

Two samples from each source are examined annually, one in the first half year and one in the second half year.

**Typhoid and paratyphoid.**—Typhoid and paratyphoid B. were both present in Birkenhead during the year.

**Food poisoning.**—No cases of food poisoning were confirmed by the Laboratory. The complexity of investigation in this connection is shown by the diversity of the material examined, ranging from ice cream, barley and meat to soil from a drain and matter from a railway embankment. An interesting sample was one of vinegar, which contained vinegar eels in enormous numbers.

**Streptococcal infections.**—As was mentioned in my report for 1933, streptococcal infections occur frequently among the general population. In conjunction with the Infectious Diseases Hospital, regular examinations of throat swabs are carried out for the presence of haemolytic streptococci. As this organism is frequently found in chronic catarrhal conditions, a number of vaccines have been prepared and issued for treatment purposes, in many cases with excellent results.

**Malaria.**—Malaria was diagnosed by the Laboratory on several occasions during the year.

**Veterinary work.**—Work done in conjunction with the Veterinary Officer includes, besides the examination of milks for tuberculosis, such investigations as are necessary for the efficient maintenance of the horses belonging to the Corporation. While no individual spectacular case occurred during 1937, there is a considerable amount of steady work done in this connection and consultations with the Veterinary Officer are frequent.

Some cases of suspected anthrax were investigated during the year, but with negative results.

Birkenhead offers unrivalled opportunities for the scientific investigation of diseased meat. Many samples are examined under the microscope, and museum specimens are prepared from time to time.

**Lectures.**—At the Birkenhead Municipal Hospital, courses of lectures were given to the nursing staff on bacteriology, pathology, and bio-chemistry, in connection with the examinations for the State Certificate of the General Nursing Council.

**Museum.**—Interesting specimens are added to the pathological museum from time to time, which will be of great value for teaching purposes.

**Comparison with previous years.**—The work of the Laboratory has grown steadily during the past seven years. Details are given below :—

Nature of specimens	1931	1937
Sputa for B. Tuberculosis ... ..	1473	2332
Cultures for B. diphtheriæ ... ..	1994	6709
Diphtheria virulence tests ... ..	20	35
Blood tests (agglutination) ... ..	39	83
Smears for gonococci ... ..	511	1116
General bacteriological examinations ...	742	4287
General biochemical examinations ...	257	2112
General pathological examinations ...	152	2121
Vaccines issued ... ..	29	68
Milk, graded, bacterial counts ... ..	161	176
Milk, samples for tubercle bacilli ...	421	211
Milk, human ... ..	—	6
Water, bacteriological examinations ...	97	116
Total ... ..	5896	19372

## BIRKENHEAD MUNICIPAL HOSPITAL

This hospital of 550 beds was appropriated as a Public Health Hospital on 1st April, 1933, and since that date has been administered by the Health Committee of the Council. During the year 1937 the question of the future of the hospital has been receiving the closest attention of the Committee, and recommendations of far-reaching significance may be made to the Council at an early date. It is opportune, therefore, that in this annual report some account should be given, firstly, of the progress of the hospital during the past five years, and secondly, of the important developments now under consideration.

It was obvious when the hospital was taken over that it was in a great many respects out of date; that it was understaffed, inadequately equipped, and without many of the facilities and amenities which are regarded as essential in a modern institution of the kind. It was obvious, also, that attempts at modernisation would be enormously handicapped by the fact that the site on which the hospital stands is almost completely built over. The mistake of erecting any public building without leaving ample, and what may at the time appear to be lavish, room for future extensions could not be more vividly demonstrated.

The Health Committee set to work at once with those developments which were most urgently required, and which could be undertaken without extensive reconstruction. While realising that the major problems of modernisation lay ahead, they have during these five years carried out many improvements, and have increased the efficiency of the hospital in a large number of ways. Instances are given below.

*Staff*—(a) Appointment of the following additional medical and surgical staff :—

Consultant Aurist and Laryngologist  
 Consultant Psychiatrist  
 Consultant Orthopædic Surgeon  
 Consultant Obstetrician  
 Consultant Ophthalmic Surgeon  
 Senior Resident Medical Officer

(b) Increase in nursing staff by addition of

2 Ward Sisters  
 2 Staff Nurses  
 14 Probationers  
 2 male Nurses  
 4 male Nursing Orderlies

(The staff will shortly be further increased by the appointment of a second Assistant Matron and Certificated Pupil Midwife).

(c) Nursing staff salaries increased

(d) Nursing staff hours reduced to 56-hour week with one full day off in seven

(e) Arrangements made for probationers to receive instruction in invalid cookery

(f) Other additional staff appointed

*Additional accommodation, structural alterations, etc.*

Additional Nurses' Annexe provided to house extra staff

Alterations carried out to F Block in order to provide (a) accommodation for Resident Medical Staff and (b) Continuation Clinics

Plaster Room and fittings provided for Orthopædic Surgeon.

Alterations carried out at Nurses' Home to provide improved and increased accommodation for dining

Enclosure by glass screens of hospital corridors between B and C Blocks, C and D Blocks, D and E Blocks, and E and F Blocks  
Electric Lifts in A and B Blocks repaired and modernised  
Modern internal automatic telephone system installed  
Switches, sockets and plugs for electrical power installed in wards  
Electric supply transferred from D.C. to A.C.

*Equipment*

## X-Ray Department :—

Safety equipment installed  
Plant shock-proofed  
Modern X-Ray Unit provided to replace old Unit  
Mobile X-Ray Unit provided  
Electric Cardiograph provided  
Screening Stand provided  
Ambulance Trolley provided

## Massage Department :—

Medical and Surgical Diathermy Units provided

## Other matters :—

Theatre equipment modernised and added to  
Dr. Minnitt's apparatus provided  
Modern food carriers, ward cabinets, dangerous drugs cabinets, patients' lockers, bed screens, refrigerators, and wash-hand basins provided for Wards  
Hospital Kitchen equipment modernised and added to  
Improved accommodation and equipment for Nurses' Home and Recreation Pavilion, and Nurses' Home Kitchen equipment modernised

The Committee were, however, steadily confronted with certain obvious defects and deficiencies of a major character for which no easy solution presented itself. The main requirements were the following:—

New operating theatres

An out-patient department (general, medical, and surgical; orthopædic; ophthalmic; aural; mental; dental; massage and electrical treatment)

New receiving wards

Visitors' waiting room

Accommodation for private patients

Increased and improved accommodation for maternity cases

Additional bed accommodation for adults and children

A modern Nurses' Home with accommodation for all nursing and for domestic staff

These are not set out in order of urgency of need. For example, a new Nurses' Home is one of the most urgent requirements: but it would be impossible to decide the accommodation which should be provided in this building until the policy with regard to the nature and extent of other developments (and consequently the number of nursing staff likely to be employed) had been decided.

These matters have been the subject of discussion with the Ministry of Health, whose officers have visited the Hospital and inspected it in detail with the Medical Officer of Health and the Medical Superintendent.

The conclusion arrived at by the Ministry was that modernisation of the existing hospital was frankly not a practical proposition; the Ministry's letter of the 16th July, 1936, contained the following statement :—

“ The Minister . . . is clearly of opinion that the Council's proper course would be to seek another site probably outside the

town on which provision for maternity accommodation could be made as a first step, with the ultimate design of a complete hospital upon the site. The Minister has not overlooked the financial objections which may be advanced against this proposal, but he would suggest that these could be minimised by a policy of gradual development in the direction of full hospital provision which he is satisfied could not be secured within the limitations of the present site." It may be agreed at once that this would appear to be the only completely satisfactory step to take, and incidentally that it would be the best way, in the long run, of getting full value for money spent.

The views of the Ministry called for, and received, most careful consideration by the Health Committee. The Committee, however, found themselves unable to recommend the Council to embark on the scheme suggested, which involved the ultimate abandonment of the premises in Church Road, and would undoubtedly cost a very considerable sum. They felt that an attempt should be made to evolve a scheme for the modernisation of the present hospital; and instructed the Medical Officer of Health and Borough Engineer & Surveyor to investigate the matter and report.

A great deal of time was occupied in consultation with the Medical Superintendent in trying to find solutions to the many problems involved; and in November, 1937, the Medical Officer of Health submitted a report embodying a scheme; not as an ideal scheme but as the best that appeared to be attainable. This was received by the Health Committee, and referred to the Borough Surveyor; and, with a few modifications subsequently made, is outlined below.

### Modernisation Proposals

#### **Block A**

Build additional storey, giving accommodation for 28 more children  
Modernise throughout

#### **Block B**

Rebuild  
Provide here Receiving wards  
Waiting room  
Offices for porters, almoner, clerk-steward and other clerical staff, Medical Superintendent, and Deputy Medical Superintendent

#### **Block C**

Re-model ground floor to serve as waiting room for patients' friends  
Build additional storey  
Design this, and first floor with necessary alterations, for the reception of private patients

#### **Blocks D & E**

These are badly arranged blocks. Although they might be left for the present, they should at a later date be rebuilt; additional bed accommodation for adults, which may possibly be required in the near future, could then be provided

**Block F**

- Build new twin theatres here and rebuild kitchens
- Use the basement, including the rooms at present taken up by the continuation clinic, as a dispensary
- Allocate the room at present used as a dispensary to the Assistant Matron
- Use the accommodation vacated by the Matron, when new Nurses' Home is built, for resident medical staff
- Provide up-to-date storage accommodation in this block

**Block G**

- Build additional storey, giving accommodation for 30 additional patients

**Block H**

- Build additional storey, giving accommodation for 40 additional patients

**Maternity Wards**

- Build new maternity block of sixty beds
- Use existing block for isolation purposes

**Existing Nurses' Home**

- Convert into out-patient department
- Place waiting rooms centrally on ground, first and second floors
- Provide lift
- Accommodate (1) on ground floor general surgical out-patient department and massage and electrical treatment department;
- (2) on first floor gynaecological department, and postnatal clinic; and orthopaedic department;
- (3) on second floor ear, nose and throat, dental, ophthalmic, and mental departments

The effect of the above proposals on in-patient accommodation, and on nursing staff required, would be as follows :

*Patients :*

- General accommodation for adults : increase of 29 beds
- Accommodation for children : increase of 28 beds
- Maternity ward accommodation: increase of 39 beds
- Private ward provision (entirely new), 26 beds

(The accommodation at present used in siderooms, etc., for private patients would be released)

*Nursing Staff :*

Taking into consideration the above increases in bed accommodation, the increased facilities for private agreement patients and maternity work, and the development of an adequate out-patient department, it would be necessary to provide for the following increase in nursing staff:—

Assistant Matron ...	1
Home Sister .....	1
Sister Tutor .....	1
Sisters .....	5
Staff Nurses .....	9
Probationers .....	40 (including 5 pupil midwives).

**New Nurses' Home**

In the event of the suggestions made above being approved, the accommodation required in the new Nurses' Home would be as follows :—

*Matron*

Dining room and sitting room  
Bedroom and spare bedroom  
Private bathroom  
Office

*Senior Nursing Staff*

Dining room  
Sitting room  
3 offices  
7 bed-sitting rooms  
Bathroom

*Other Staff*

3 main dining rooms for :

- (a) Sisters
- (b) Staff Nurses and Probationers
- (c) Domestic staff

2 large lounges for Sisters and Nurses which could be converted into one large recreation room for social occasions

Demonstration room  
Lecture room, Study room, Library  
Writing room  
Visitors' room  
Shampoo room  
Ironing room  
Sitting room for Maids  
234 bedrooms :

20	Sisters
26	Staff Nurses
142	Probationers
46	Domestic Staff

---

234

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The site which could be utilised for the Nurses' Home is that in Derby Road, which is owned by the Corporation. The annexes in Westbank Road and Rockybank Road would no longer be required, and the tenancies could be terminated. The calculation of accommodation required was based on the following assumptions :

(a) That there will be no radical change in staffing, such, for example, as would be brought about by the introduction of an eight-hour shift system;

(b) That all the nursing staff will be required to live in, with the exception of the male orderlies.

**Work of the Past Year**

Almost all departments of the hospital showed an increase in work during 1937; the admissions reaching the record figure of 5,253, of whom 4,302 were Birkenhead residents. This figure may be appreciated more easily if it is realised that it means that approximately one person out of every 37 in Birkenhead was admitted to the hospital for one purpose or other during the course of the year. The demands

on maternity accommodation have been particularly heavy; it has been necessary on occasion to refuse admission to applicants, so continuously occupied have the maternity wards been throughout the year.

ADMINISTRATIVE ARRANGEMENTS

Dr. R. A. Grant, F.R.C.S. (Edin.), Medical Superintendent, has been in charge of the Hospital throughout the year, and has prepared all the statistics relating to cases dealt with.

The services of the following Consultants on the staff of the Medical Officer of Health were retained during the year 1937:

- Aurist and Laryngologist—Mr. P. W. Leathart
- Psychiatrist—Dr. S. Barton Hall
- Orthopaedic Surgeon—Mr. T. Hartley Martin
- Obstetric Surgeon and Gynaecologist—Mr. S. B. Herd
- Ophthalmic Surgeon—Dr. D. L. Charters
- Physician—Dr. W. Johnson
- Radiologist—Mr. R. W. Gemmell

The greatest co-operation has existed between the hospital and other sections of the Medical Officer of Health's Department.

TABLE B.M.H. 1  
Admissions, births, discharges and deaths, 1937

	Men	Women	Children	Total
In Hospital at 31st December, 1936 .....	156	145	101	402
<i>Admissions:</i>				
From own homes or other hospitals .....	1610	2106	983	4699
From Birkenhead Public Assistance Institution .....	42	36	15	93
From Scattered Homes .....	—	—	17	17
Births in Hospital .....	—	—	444	444
<b>Total cases dealt with .....</b>	<b>1808</b>	<b>2287</b>	<b>1560</b>	<b>5655</b>
<i>Discharges:</i>				
To own homes or other hospitals .....	1189	1822	1289	4300
To Birkenhead Public Assistance Institution .....	99	82	12	193
To Scattered Homes .....	—	—	16	16
Deaths in Hospital .....	355	226	122	703
<b>Total discharges and deaths .....</b>	<b>1643</b>	<b>2130</b>	<b>1439</b>	<b>5212</b>
Cases in hospital, 31st December, 1937 .....	165	157	121	443

TABLE B.M.H. 2

Surgical Operations carried out, 1937

Major operations (excluding tonsils and adenoids)	1075
Operations for tonsils and adenoids:—	
School medical service ... ..	47
Other ... ..	14
	61
Eye operations ... ..	14
Nasal operations ... ..	7
Dental operations ... ..	17
	1174



TABLE B.M.H. 3  
Maternity Cases dealt with, 1937

	Total No. of women dealt with	Married	Single	Total No. of children dealt with	Live births	Still Births
Cases dealt with .....	493	461	32	477	444	33

Seven women (one a Wallasey resident) died from causes associated with pregnancy or childbirth. A review of these cases by the Registrar-General resulted in the deaths of four of these being ascribed primarily to other conditions.

TABLE B.M.H. 4  
X-ray and ultra violet ray treatment, 1937

X-ray examinations made of:—						
Stomach	...	...	...	...	...	271
Kidney	...	...	...	...	...	184
Chest	...	...	...	...	...	1399
Gall bladder	...	...	...	...	...	62
General	...	...	...	...	...	690
						2606
Patients to whom X-ray treatment was given	...	...	...	...	...	12
X-ray films used	...	...	...	...	...	5633
Screenings	...	...	...	...	...	926

TABLE B.M.H. 5  
Ophthalmic examinations and treatment, 1937

Patients seen	...	...	...	...	...	298
Attendances made by patients	...	...	...	...	...	628
Spectacles prescribed	...	...	...	...	...	181
Spectacles not prescribed	...	...	...	...	...	117
						298
Operations performed	...	...	...	...	...	14

TABLE B.M.H. 6  
Sunlight, massage, electrical and remedial exercises treatment, 1937

		Attendance Treatments
Patients to whom sunlight treatment was given	129	1181
Patients who received massage treatment	30	908
Patients who received massage and electrical treatment	...	...
Patients who received electrical treatment only	134	1316
Patients tested for electrical reactions	132	1049
Patients treated by exercises	13	13
Patients treated by exercises and massage	20	555
	169	1559
	627	6581

TABLE B.M.H. 7  
Dental treatment, 1937

Patients examined	...	...	...	...	394
Patients treated: for extractions	...	...	...	347	
for scalings	...	...	...	2	
for dressings	...	...	...	45	
				—	394
Operations performed	...	...	...	...	17

TABLE B.M.H. 8  
Specimens sent to Municipal Laboratory, 1937

Bacteriological specimens	...	...	...	...	5041
Biochemical specimens	...	...	...	...	1650
Pathological specimens	...	...	...	...	1428
					8119

TABLE B.M.H. 9  
Examinations of nursing staff, 1937

Nature of examination	No. of Nurses who sat	No. of Nurses who passed	No. of Nurses who failed
State Register Examination of General Nursing Council .....	16	14	2
Hospital Final Examination .....	13	12	1

**Blood transfusion.**—The Merseyside Blood Transfusion Society has again rendered valuable services. During the year 33 blood transfusions were performed.

**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 to 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 17 new cases came under the care of the Mental Deficiency Acts Committee.

5 cases were sent to institutions by judicial orders.

3 cases were placed under supervision pending institutional vacancies arising; 13 cases were placed under home supervision; 3 cases died; 2 cases were placed under guardianship during the year; and 2 cases were discharged from institutions.

17 first visits and 446 re-visits were paid to the homes of mental defectives by the Health Nurses.

At the end of 1937 there were under the care of the Mental Deficiency Acts Committee 566 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 .....	3	0	3
Cranage Hall Certified Institution .....	28	38	66
	<hr/>	<hr/>	<hr/>
	31	38	69

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

Birkenhead Institution, etc. ....	3	7	10
Royal Albert Institution (Lancaster) ...	6	1	7
	<hr/>	<hr/>	<hr/>
	9	8	17

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

	2	1	3
--	---	---	---

Under home supervision—	Males	Females	Total
(a) Cases discharged from institutions ...	1	1	2
(b) Cases which should be in institutions	31	15	46
(c) Under domiciliary treatment by Public Assistance Committee ...	11	9	20
(d) Others (including ex-Special School cases, 287 in number) .....	245	159	404
Under guardianship .....	4	1	5
	<hr/>	<hr/>	<hr/>
	292	185	477
	<hr/>	<hr/>	<hr/>
Total .....	334	232	566

**Cranage Hall Certified Institution.**—Towards the end of 1936, additional accommodation became available at this institution; the number of patients for whom beds could be provided being increased from 62 beds (all for high grade females over the age of 16 years) to 318 beds (96 males and 182 females over the age of 16 years, and 40 cot and chair cases for both sexes of all ages).

At the end of 1937, the number of Birkenhead cases in the institution was 69 (31 males and 38 females).

Although the increased accommodation at Cranage Hall has proved useful, there is still a large number of cases on the register for whom accommodation is required. The Cranage institution has so far provided largely for the type of patient for whom there has never been difficulty in finding beds elsewhere. It is for the lower grade cases, and cases of a complicated type, that accommodation is so urgently required.

**Cases in other institutions.**—There are 17 cases in institutions for whom provision should be made by the local Mental Deficiency Authority. These 17 cases are defectives who have been placed at the instance of the Public Assistance Committee, parents, etc.

**Occupation Centre.**—An Occupation Centre was opened by the Mental Deficiency Acts Committee in 1935 for the reception of cases who are ineducable within the meaning of the Education Acts. A description of the activities of the Centre were given in my annual report for 1935. At the end of 1937 there were in attendance at the Centre 24 children (10 boys and 14 girls); the average attendance during the year was 21.

The staff of the Centre consists of a supervisor (Miss E. Holding), an assistant, a cook-guide, and a resident caretaker. The cook-guide does the cooking and brings the children to the Centre.

Dr. S. Barton Hall, the Consultant Psychiatrist on the staff of the department, has attended periodically at the Centre during the year, and has examined the children in attendance, as well as other patients who were referred to him. 11 sessions were held during the year and 24 mentally defective persons (15 males and 9 females) were examined.

**Constructive aspects of segregation.**—The following quotation from a report made by Dr. Barton Hall deals with an important aspect of the segregation of mentally defective persons which, as he says, is not usually appreciated by the public :

It is felt that the emphasis which is rightly laid upon the segregation and institutionalism of mentally defective persons sometimes obscures the positive and constructive aspects of the work. It is, of course, of great importance that by ascertainment and supervision of all mental defectives a definite proportion of crime and illegitimacy may be prevented, but it is also felt to be of equal importance to emphasise that a definite proportion of mentally defective persons are capable of contributing some service to the community. It is not too much to say that with respect to certain types of work the trained and stable mental defective may be better fitted than his more intellectually minded fellow. If this be so, it seems desirable that in the minds of the general public there should be more knowledge concerning the measures provided for this type of case, the work done at the Special School, the Occupation Centre, and Cranage Hall, and the fact that the object of these activities is not merely to remove and isolate the defective from his fellows but rather to educate, train and socialize him to the extent that his capacities allow.

#### 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.

Reference is made to such cases in the section of this report which deals with the school medical service.

#### 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, 1937, was 311; of these 175 were males and 136 females.

Age.	M.	F.	Total.	%
0—1 ...	—	—	—	} 2.25
1—5 ...	—	1	1	
5—16 ...	3	3	6	
16—21 ...	5	—	5	} 53.38
21—40 ...	25	15	40	
40—50 ...	27	12	39	
50—65 ...	48	34	82	} 44.37
65—70 ...	22	20	42	
70 and over	45	51	96	
	175	136	311	

The ascertained causes of blindness are as follows:

	M.	F.	Total.
Cataract only .....	48	37	85
Cataract and myopia .....	5	5	10
Cataract and glaucoma ...	1	2	3
Cataract and other defects	7	6	13
Glaucoma only .....	17	14	31
Myopia only .....	17	17	34
Corneal obstruction .....	19	18	37
Other causes .....	61	37	98
	175	136	311

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

	M.	F.	Total.
Mentally defective ...	6	2	8
Deaf ...	4	5	9
Deaf and dumb ...	1	—	1
Otherwise physically defective	7	4	11
	18	11	29

**Children under 16 years of age.**—These numbered 7; 3 boys and 4 girls. 3 boys and 2 girls were attending schools for the blind; 1 girl was in a Sunshine Home for Blind Children; 1 girl, aged one year, was at home.

**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 ... ..	16	2	18
Trained but unemployed ... ..	3	6	9
Under training ... ..	5	1	6
Not trained, but probably trainable ... ..	4	1	5
Probably unemployable ... ..	144	122	266
	<hr/> 172	<hr/> 132	<hr/> 304

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

	M.	F.	Total.
Agents, collectors, etc. ... ..	2	—	2
Basket & cane workers, brush makers, mat makers ... ..	11	1	12
Tuners ... ..	2	—	2
Miscellaneous ... ..	1	1	2
	<hr/> 16	<hr/> 2	<hr/> 18

**Home Teachers.**—Miss Jones paid 1,294 visits to blind persons, including 134 visits for the purpose of teaching Braille, Moon or handicrafts.

Miss Crossley paid 1,171 visits to blind persons, including 190 visits for the purpose of teaching Braille, Moon or handicrafts.

Meetings of the occupation class were held on 47 occasions : the average attendance was 20.

Six social evenings were arranged : these were held at the North and South Health Clinics respectively. Thanks are due to the various concert parties which gave their services. Nine rambles were organised by the Home Teachers.

During the Coronation celebrations over a hundred blind persons and their friends enjoyed a river trip, and a still larger number a tea and concert in the Town Hall provided by the Mayor (Councillor Prentice) towards the close of his year of office.

**Home visiting by Health Nurses.**—The Health Nurses paid 40 first visits and 6 revisits to blind persons in the area.

**Financial assistance to blind persons.**—At the end of the year 229 blind persons (148 males and 81 females) were in receipt of financial assistance under the scheme of the Council for the Welfare of the Blind.

**The Deaf-Blind.**—A survey carried out in November by the Organiser of Services to the Deaf-Blind attached to the Northern Counties Association for the Blind revealed the existence of nine persons suffering from the double affliction; one of them was also dumb. Eleven other blind persons were found to be hard of hearing.

The Council have agreed to pay one-third of the cost of suitable hearing-aids prescribed by the Department for the Education of the Deaf of Manchester University: these instruments may be obtained at a lower cost from certain firms by certified blind persons.

## HOUSING AND ENVIRONMENTAL HYGIENE

The provision of healthy houses has been one of the major social problems to occupy the attention of the Central Government and of Local Authorities since the conclusion of the war. The problem is two-fold: firstly, to secure that there is a *sufficient number* of houses; secondly, to secure that every house is "*fit for habitation*." Building has been carried out on such an enormous scale that the housing shortage is rapidly being overhauled. As new accommodation becomes available, houses which are unhealthy and cannot at reasonable cost be made fit are condemned and demolished. Overcrowding is still a major problem; and a very real difficulty is encountered in the fact that many families cannot afford to pay the economic rent of a newly-built house even when such accommodation is offered.

Side by side with the building of new houses and the removal of "slums" there has gone on an immense amount of remedial work which is little known to the public. Continuous inspection of houses is carried out under the Public Health and Housing Acts by the sanitary inspection staff; and a large number of defects, structural and other, are removed, generally with the willing co-operation of the owners, and living amenities consequently greatly improved.

The figures given in the adjoining tables give a good indication of the work undertaken in connection with housing reform in Birkenhead during 1937.

### ADMINISTRATIVE ARRANGEMENTS

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

The eight district inspectors and the assistant inspector 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) is 8,598 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 number of dwelling houses of all descriptions within the Borough, excluding institutions, on 31st December, 1937, was 33,069.

**Number of other buildings in the Borough.**—The number of other buildings within the Borough, on 31st December, 1937, was 5,769.

**New dwellings erected, 1921-1937.**—The new dwellings erected in the Borough between the date of the 1921 census and the end of 1937 were as follows:—

(1) Between the date of the 1921 census and 31st December, 1936—	
(a) With State assistance under the Housing Acts, 1919-1925	
(i) By the Local Authority .....	3024
(ii) By other bodies or persons .....	609
(b) Other .....	2660
	6293



(2) During 1937—		
(a) With State assistance under the Housing Acts, 1919-1925		
(i)	By the Local Authority .....	173
(ii)	By other bodies or persons .....	0
(b)	Other .....	426
		599
	Total .....	6892

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

#### ADMINISTRATIVE ACTION TAKEN IN CONNECTION WITH HOUSING AND ENVIRONMENTAL HYGIENE

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

During the twelve months ending 31st December, 1937, 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) .....	11307
	(b) Number of inspections made for the purpose .....	62848
(2)	(a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 .....	1193
	(b) Number of inspections made for the purpose .....	26379
(3)	Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation .....	343
(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 .....	835

##### 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 9, 10 and 16 of the Housing Act, 1936:

(1)	Number of dwelling-houses in respect of which notices were served requiring repairs .....	835
(2)	Number of dwelling-houses which were rendered fit after service of formal notices:—	
	(a) By owners .....	901
	(b) By local authority in default of owners .....	23

B.—*Proceedings under Public Health Acts:*

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied .....	3493
(2) Number of dwelling-houses in which defects were remedied after service of formal notices:—	
(a) By owners .....	3479
(b) By local authority in default of owners .....	—

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

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

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

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

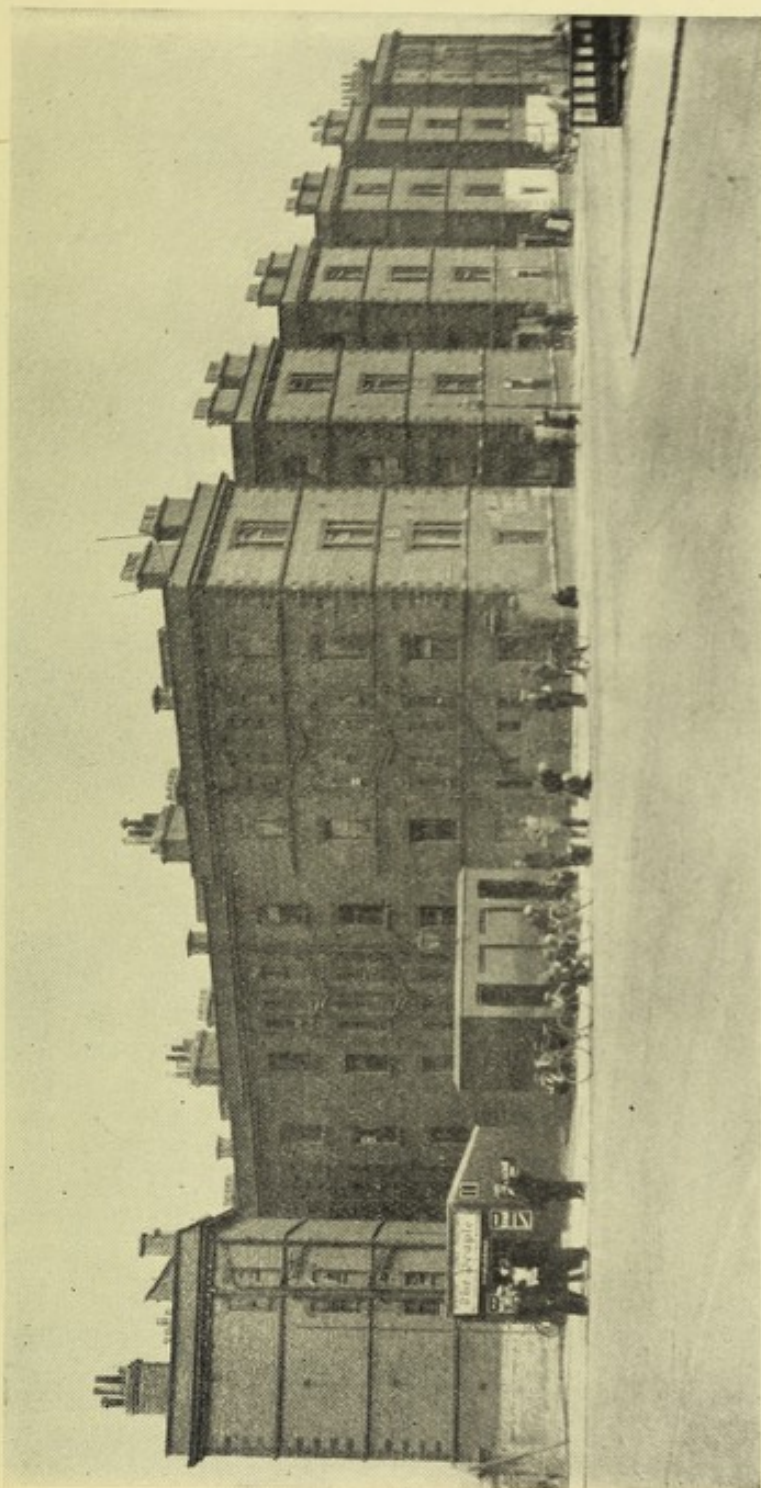
4. **Housing Act, 1936.—Overcrowding:—**

(a)— (i) Number of dwellings overcrowded at the end of the year .....	1147
(ii) Number of families dwelling therein .....	1152
(iii) Number of persons dwelling therein .....	6480½
(b)—Number of new cases of overcrowding reported during the year .....	499
(c)— (i) Number of cases of overcrowding relieved during the year .....	959
(ii) Number of persons concerned in such cases ...	5401
(d)—Particulars of any cases in which dwelling-houses have again become overcrowded after the local authority have taken steps for the abatement of overcrowding .....	—
(e)—Any other particulars with respect to overcrowding conditions upon which the Medical Officer of Health may consider it desirable to report .....	—

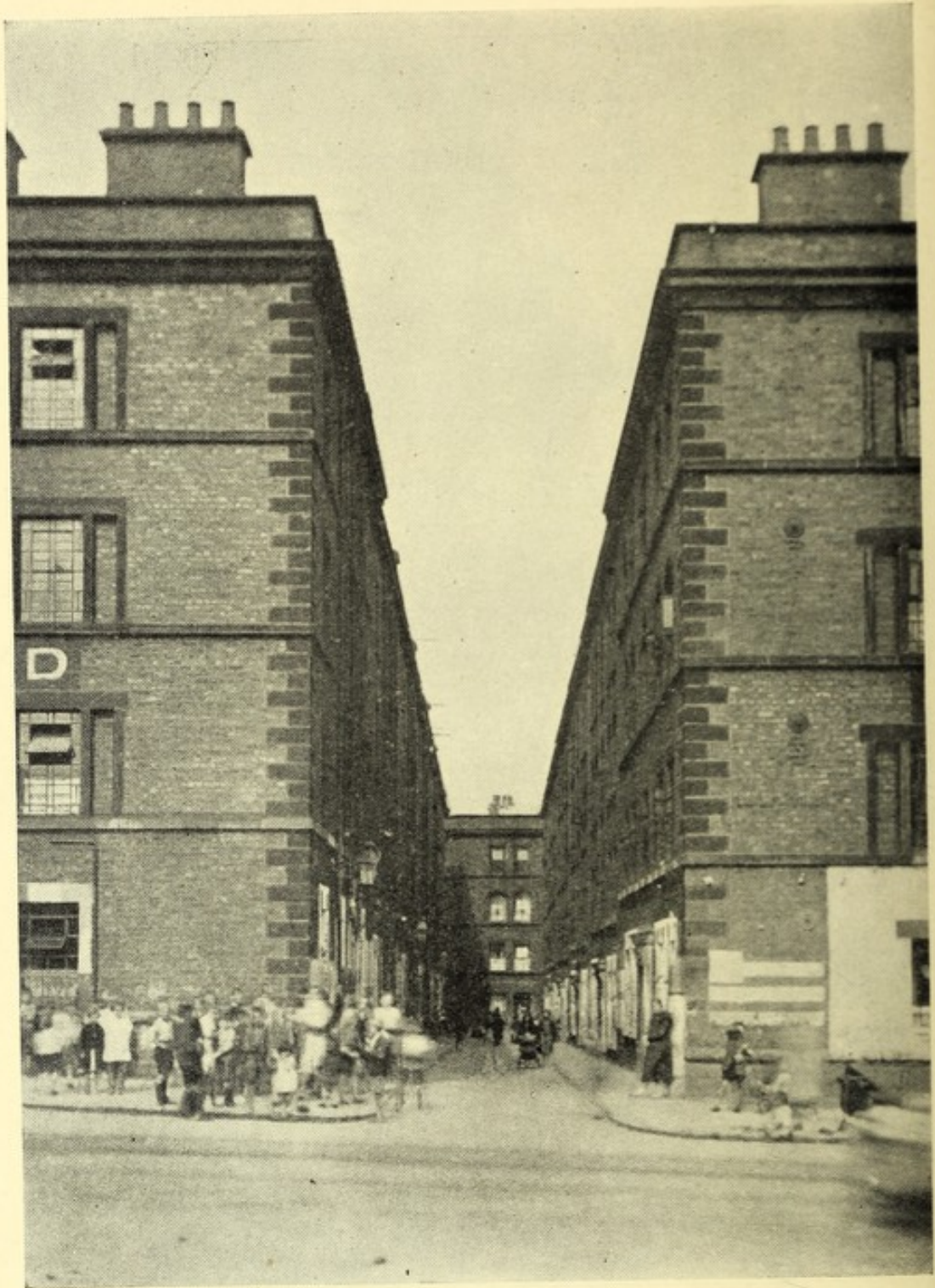
*(b) Slum clearance schemes*

On representation made by the Medical Officer of Health, clearance orders were made by the Council under Part 1 of the Housing Act, 1930, in respect of the houses recorded in the table below. These clearance orders have been submitted to the Minister of Health for confirmation.

Name of Area.	Houses and other buildings included in the Area	Total
Flamank Street	Flamank Street—1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70.  Arthur Street—27, 29, 31, 33.  Price Street—332, 334, 336, 338, 340, 342, 344, 346, 346a, 348, 348a, 350, 350a, 352, 352a, 354, 354a, 356, 356a, 358, 360, 362, 364, 366, 368/370 (licensed premises), 372, 374, 376, 378, 380, 382 (lock-up shop).	97
Price Street	Price Street—331, 333, 335, 337, 339.	5
Cleveland Avenue	Cleveland Avenue—1/2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17/18, 19/20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 32/33.	27
Brook Street	Wood Street—57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93.  Brook Street—124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158.	37
Wood Street	Wood Street—25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51.	14
Russell Street	Russell Street—30, 32, 34, 36.  Cleveland Street—99.	5
Russell Place	Russell Place—1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19.	19
Oak Tree Place	Oak Tree Place—15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 2, 4, 6, 14, 16, 18, 20, 22, 24, 26, 28, 30.  Oak Tree Terrace—2, 4, 6, 8, 10.  Oak Tree Cottages—1, 2, 3, 4.  Kellett's Place—1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14.  St. Paul's Road—61, 63, 65.	65
	Total ...	269



Slum dwellings : general view



Slum dwellings : note narrow, sunless passage



Slum dwellings : demolition in progress

**(c) General environmental conditions exclusive of housing**

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

Number of smoke observations taken .....	744
Number of smoke nuisances from factory and other chimneys reported to the Health Committee .....	—
Number of schools specially examined by the sanitary inspectors .....	68
Number of cowsheds inspected .....	85
Number of inspections of dairies and milkshops .....	533
Number of inspections <i>re</i> offensive trades .....	184
Number of sewer ventilators inspected .....	55
Number of street gullies inspected .....	52
Number of caravans inspected .....	14
Number of re-inspections of caravans .....	312
Number of back passages inspected .....	129
Number of investigations regarding the keeping of pigs, fowls, and other animals .....	72
Miscellaneous inspections (not included above) .....	2017

**(d) Theatres, Music Halls, &c.**

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

74 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:—

Number of premises inspected .....	356
Number of visits and re-visits .....	620
Number of notices served on occupiers .....	193
Number of notices served on owners .....	211
Number of premises satisfactorily dealt with .....	247
Number of premises still under observation or where work is being carried out .....	14

**(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.

Registered common lodging houses (8 in number):

Day inspections .....	25
Night inspections .....	18
Insanitary conditions reported and dealt with .....	11

Houses let in lodgings (333 in number):

Day inspections .....	76
Night inspections .....	—
Insanitary conditions reported and dealt with .....	23

**(g) Swimming baths and pools**

There are three public swimming baths in the Borough.

Samples of water from these baths are taken at intervals, before and after bathing has taken place. These samples are examined bacteriologically at the Municipal Laboratory.

There are no privately owned swimming baths or pools open to the public in the area.

**(h) Eradication of bed bugs**

The Corporation Estates Repairs Supervisor reports that during the year 134 Council houses and 333 other houses were found to be infested. All these houses were disinfested.

The means employed by the Supervisor in freeing infested occupied houses from bugs is hydrocyanic acid gas; the actual work being carried out by contract. This is used only for treating the belongings and furniture of the tenants; the goods being taken to the Corporation Yard where gas is applied. All furniture, bedding, etc., is thoroughly examined before being passed as free.

When houses are vacant, "Zaldecide" is used by the Supervisor's staff for freeing infested houses, and is stated to have proved most successful.

The disinfestation of occupied premises is carried out by contract.



## FACTORIES, WORKSHOPS AND WORKPLACES

### FACTORY AND WORKSHOP ACTS, 1901 AND 1907 AND THE FACTORIES ACT, 1937.

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) .....	9	2	—
Workshops (including Workshop Laundries) ...	450	14	—
Workplaces (other than Outworkers' premises)...	2	1	—
Total.....	461	17	—

#### 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 .....	22	22	—	—
Want of ventilation .....	2	2	—	—
Overcrowding .....	—	—	—	—
Want of drainage of floors .....	—	—	—	—
Other nuisances.....	12	12	—	—
Sanitary accommodation—				
Insufficient .....	—	—	—	—
Unsuitable or defective .....	7	7	—	—
Not separate for sexes .....	—	—	—	—
<i>Offences under the Factory &amp; Workshops' Acts</i> —				
Illegal occupation of underground bake-house (s. 101)....	—	—	—	—
Other offences .....	1	1	—	—
<small>(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.)</small>				
Total.....	44	44	—	—

\*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 (8 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 .....	48
Confectioners .....	47
Boot repairers .....	24
Cabinet making and upholstery .....	12
Dressmaking .....	12
Millinery .....	4
Tailoring .....	18
Laundries .....	16
Joinery and carpentry .....	5
Saddlery and harness making .....	4
Smiths .....	8
Wagon repairers .....	4
Motor and cycle repairers .....	8
Other workshops .....	21
	231

**Other matters.**

Workshops removed from the register .....	18
New workshops opened and placed on register .....	10
Number of underground bakehouses on the register at the end of the year .....	20

**RAG FLOCK ACT, 1911**

Pursuant to the provisions of the above Act, 14 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.

**PHARMACY AND POISONS ACT, 1933**

The names of 15 persons, entitled to sell poisons included in Part II of the poisons list, have been entered on the register of persons so entitled, and the names of 107 persons previously registered have been retained on the register.

Three persons have discontinued the sale of poisons and their names have been removed from the register.

## HEALTH EDUCATION

During the year the attention of the public was drawn in a number of ways to the activities of the public health authority. While it is not possible to gauge exactly the effects of educative efforts of this sort, it may be presumed that increased use of the services is one of the results. Though this is not by any means the whole aim it is an important part, and fully justifies the expenditure of public funds which is entailed.

For the first time the Ministry of Health associated itself directly with the work of this kind undertaken by local authorities, and in conjunction with the Central Council for Health Education made available to those authorities a large quantity of printed material urging upon the public the need for using the health services provided for them. The campaign was inaugurated by a wireless address given at the end of September by the Prime Minister, whose appeal to local authorities to give it their support appears to have met with a wide response. In Birkenhead posters were exhibited on the public boardings and many thousands of folders and leaflets distributed through schools, clinics and libraries in each of the first three months of the campaign. At the request of the Minister of Health, and by arrangement with the Postmaster-General, post offices in the town were supplied with leaflets setting out the places and times of the various clinics. The two poster-frames handed over to the Council by the Empire Marketing Board were used throughout the year to exhibit the posters supplied by the Central Council for Health Education: these were changed every few weeks.

In June the British Social Hygiene Council exhibited a new talking film entitled "Trial for Marriage" in the Y.M.C.A. hall. The lecturer got into personal contact a day or two before the film was shown with the management of several of the largest employers of young adult labour in the neighbourhood. As a consequence an audience of nearly two hundred young people attended the meeting, arrangements for which were made by the health department and at which the then chairman of the Health Committee (Alderman Tweedle) took the chair.

Reference is made in the section dealing with the school medical service to the Dental Board's demonstration held in December.

Members of the health nursing staff have given talks in schools to the senior children: this method of education is one of the most valuable, and it is desirable that it should be extended. One of the health nurses gave a course of three talks on home nursing and hygiene to the members of a working-class mothers' club in the north end of the town. The Central Branch of the Co-operative Women's Guild provided an audience of 200 for a lecture by the Medical Officer of Health on the public health services.

The editors of the "Birkenhead Advertiser" and "Birkenhead News" are to be warmly thanked for the readiness with which on many occasions they have given publicity to the work carried out by the local authority in the interests of the health of the community.

## MATERNITY AND CHILD WELFARE

**The birthrate.**—The trend of the birthrate in Birkenhead continues to be downwards. It is still appreciably higher than the rate for the country as a whole, but is too low to maintain a stable population. Broadly speaking, to achieve this every two children born should produce three children, so that, after the operation of death and allowing for non-marriage and unproductive marriage, two of these children in their turn have as issue three children to continue the process. In other words, the average family should consist of three children. Over the past fifteen years the birthrate has fallen from the point when the ratio of three to two was exceeded or maintained. There will, therefore, other factors remaining constant, be an inevitable decline in the population at an accelerating pace.

It is obvious that, even with a smaller population, the birthrate fall may be checked or reversed if certain conditions prevail. These are (1) an increase in fertility, that is, an increase in the average number of children per mother; (2) an increase in the marriage rate, that is, in the number of potential mothers; (3) a lowering of the average age at marriage, that is, an extension of the length of the effective child-bearing period; and (4) a decline in the deathrate of females up to the age of forty-five, that is, a potential increase in the number of married women. The possibility of (1) occurring depends upon a variety of circumstances, social, economic, possibly physiological, and other, which cannot be discussed here. In regard to (2) and (3) it may be observed that the marriage rate and the average age at marriage have remained generally steady throughout the century, and there seems no reason to think that they are likely to exhibit any marked change in the future.

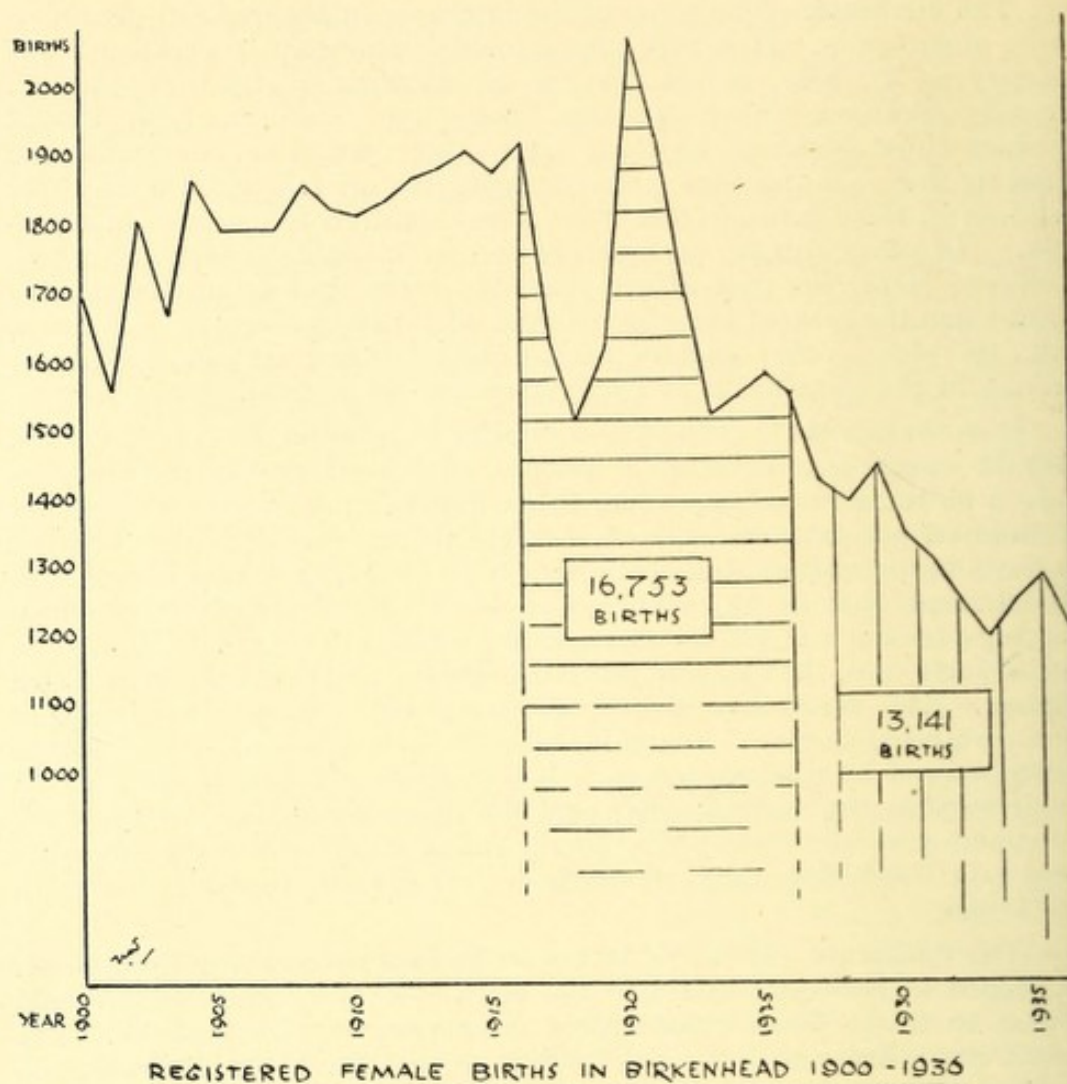
The deathrate (4) is the factor most capable of being influenced. In regard to both infants up to the age of one year and women aged fifteen to thirty years considerable improvements are possible. The infant mortality rate has been falling steadily for years, but half the deaths still are attributable to preventable causes. Among women aged fifteen to thirty years tuberculosis is responsible for nearly half the deaths: improved measures against this disease would reduce this proportion greatly. Even if the deathrates for both these age-groups were reduced to nil, however, the effect upon the falling birthrate would be very slight. Only a marked increase in fertility can arrest or reverse the decline in the population.

An examination of the subjoined graph will make the position clear.

Since 1920 (the peak year) there has been, almost consistently, a lesser number of female births each year than in the preceding year. Births in 1936 were only 60% of those in 1920. Between 1917 and 1926 female births numbered 16,753; between 1927 and 1936 they numbered 13,141, a decline of 3,612 potential mothers. Even with no deaths in the latter group they will still be considerably fewer in number as women of child-bearing age than the survivors of the earlier group and so, other factors remaining constant, must inevitably produce a smaller number of children.

A population in decline raises even greater problems than a population in growth. Many difficult adjustments in the social and economic

structure will have to be made. The public health services, especially those which deal with certain age-groups, will have their share of these.



**The Midwives Act, 1936.**—The most noteworthy event of the year was the coming into practical operation of the Midwives Act, 1936. This Act was the most important piece of legislation in connection with the personal health services for some years, and rounds off the series of statutes dealing with midwifery which began in 1902. Prior to that time no qualifications were required for the practice of midwifery. Successive Acts have tightened up the conditions under which women may be attended during pregnancy and confinement, with the object of eliminating some of the avoidable risks of motherhood. The 1936 Act was passed as a result of the declaration of the Departmental Committee on Maternal Mortality and Morbidity that a necessary development in local authorities' maternity schemes was the provision of an adequate service of whole-time salaried midwives. Local authorities had in fact had the power to engage midwives under the Maternity and Child Welfare Act, 1918, but had made negligible use of it. The power has now become a duty, and there has accordingly been brought into being throughout the country a comprehensive service of salaried midwives,

either directly employed by local authorities or provided by voluntary associations under agreements with them.

It should be noted that although hitherto the Birkenhead council has not employed a salaried staff it has for a number of years, at considerable aggregate cost, paid the fees of midwives for attendance upon necessitous cases of confinement. Steps have thus been taken to ensure that the town's midwifery services have been adequate in the sense that no mother has been without the attention of a midwife because of inability to pay her fee. In this regard the Act makes no essential change. Its effects, nevertheless, will not be less important in their bearing upon midwifery. The improvement in the status and economic circumstances of the midwife, which are now comparable with those of other women health officers, should attract into the profession women who are more fully qualified, and this in time should contribute to the solution of the problem of maternal mortality. Present-day midwives have given devoted service under arduous and ill-paid conditions: the standard of competence in Birkenhead has been high. But the improved technique of modern obstetrics demands a steadily rising level of efficiency, and a greater degree of skill in all concerned. It is therefore of prime importance that the professional knowledge of the midwife, who plays an essential part, should be built upon a basis of training in general nursing, which involves a thorough understanding of physiology and a full appreciation of the relation between the patient's pregnancy and her general condition.

The Midwives Act, therefore, has a significance beyond what may be immediately apparent; and, if the widest use is made of the facilities which it provides, should do much to reduce the extent of maternal mortality and disability.

The Council's scheme under the Act provided for the initial appointment of twelve midwives, it being made clear that this number would require eventually to be materially increased if all the domiciliary births occurring in the town are to be attended by the salaried staff.

In addition the Council, recognising the need for the Birkenhead Maternity Hospital to engage in a certain amount of domiciliary practice in order that it might continue to be approved as a midwifery training school, decided to pay to the Hospital a grant equivalent to the salary of one municipal midwife. (All fees paid for the services of the hospital midwife are the property of the Corporation.) There are thus in effect thirteen salaried midwives, who are capable of dealing with a maximum of approximately 1,170 cases annually. This represents three-quarters of the average annual number of domiciliary confinements during recent years.

The municipal midwives took up duty on the 4th October, the hospital midwife on the 6th December. The scheme has worked without any difficulty. It was anticipated that there might perhaps be some reluctance to engage municipal midwives because of a fear of involvement with forms and regulations. So far as can be found this has not been the case. The private relations between midwife and patient have been maintained precisely as they have always been; only in the event of the patient not being able to pay the fee is there the necessity for any form to be completed.

**The supply of milk.**—Since the Local Government Board made expenditure on the supply of milk to mothers and infants rank for grant the provision of this form of nourishment has formed an important part of maternity and child welfare schemes. The conditions under which free milk has been given have been that recipients must be (a) economically necessitous and (b) in need of extra food on medical grounds. The difficulty of drawing any distinction between (a) and (b) has been the source of an enormous amount of confusion. Since sufficient food is essential for good health, all mothers who are unable to procure it out of their own resources must necessarily come into both categories. Recognition of this fact, however, would convert a clinic into a food-distributing centre, in regard to which poverty would be the only criterion employed. In order to avoid this consequence, the pretence has to be maintained that women suffering from want of food are women suffering from some particular form of ill-health and that food is some special type of medicine to be prescribed by a doctor. This provides the justification for drawing a distinction between (a) and (b), since it can be argued that though a woman may be economically necessitous she may not at the time of medical examination be found to exhibit symptoms of ill-health, and thus not qualify for free milk.

During the past twenty years local authorities have experienced difficulty in accommodating themselves to the fluctuations of policy of the central department. They have been alternately exhorted to extend and directed to curtail the scope of their schemes. In the last two or three years the emphasis has been on extension, in deference to the increasing pressure of opinion aroused by scientific and other investigations into the prevalence of malnutrition. Circular 1519 (1st April, 1937) issued by the Minister of Health urged local authorities to supply nourishment to necessitous mothers and infants in all cases where this is necessary for the *maintenance* of health. This shift from the consideration of the condition of a woman or child at the time of medical examination to the estimation of what the condition will become if free milk is not received clarifies the position greatly. In effect, since health cannot be maintained on insufficient food, the economic factor is the only one to be taken into account. If this is to be the case, however, the part played by the doctor in the scheme becomes insignificant. The results of enquiry into the financial circumstances of the applicant will determine her right to receive free food.

The dissociation of the doctor from the distribution of milk would bring considerable advantages. Women would attend for examination, or would bring their babies for examination, for the sake of the examination and not, as unfortunately does frequently happen, merely with the object of receiving free milk. Pressure on the doctor's time would be relaxed; he would be able to devote more attention to each case. Attendance to have the baby weighed weekly would provide adequate opportunity for (a) supervision by the health nurses and (b) reference when necessary to the doctor.

**Toddlers clinics.**—Though there has been some increase in the number of children attending the toddlers clinics, and a marked increase in the number of attendances, these clinics have not developed as it was hoped. The response of parents to the invitation issued shortly before the attainment of a child's first birthday to take the child for periodic examination has been small.

As explained in last year's Report, the object of a toddlers clinic is to exercise supervision over the child during those highly important years that lie between babyhood and the time of its entry into school. The wide prevalence of defectiveness of various kinds that is discovered among school entrants points the need for this. Carious teeth, rickets and squint are the chief of these conditions. Each might have been treated had it been ascertained in the early stages; each becomes more difficult to deal with the longer it is left untended. What is even more important, each of the first two might in many cases have been *prevented* by means of medical advice, without the necessity for medical or other treatment. Realisation of the importance of taking care of the first teeth (which is still little appreciated) is the best safeguard against dental decay. Knowledge of proper feeding and of the value of fresh air is the first defence against rickets. In the case of squint the position is different, for it is extremely rare for this to improve without at least the aid of glasses and simple remedial treatment. Most parents, however, cherish a firm conviction that "the child will grow out of it." As a consequence the difficulties of straightening the eye steadily increase and the sight rapidly deteriorates until virtual blindness may be the result.

The value of a toddlers clinic, therefore, chiefly lies in the opportunity provided for impressing upon parents the need for paying attention to conditions whose existence they may not suspect or of which they may not appreciate the seriousness. For this reason a periodic examination is important. Except in rare cases there is no necessity for prolonged attendance at the clinic.

The number of children who are taken to a toddlers clinic, and not the number of attendances, is the measure of its worth. Using this standard, it will be seen from the table which is given on a later page that the purpose of a toddlers clinic is still very little realised. Even if the toddlers who for various reasons attended infant welfare clinics are included, only 3% of children between one and five years of age were under this form of medical supervision.

Monthly medical examination of a baby is a requirement of its receiving free milk, and consequently at the infant welfare clinic the number of babies in attendance is not necessarily a criterion of the degree to which mothers appreciate the importance of periodical inspection by a doctor. It is known, however, that a great number of mothers do appreciate this (for example, many who do not receive free milk nevertheless attend regularly). This encourages the hope that in time a similar appreciation of the value of attendance at toddlers clinics will develop. One or two visits a year is in most cases all that is necessary.

It has not been found possible to establish toddlers clinics at Hamilton Square or Mount Grove. A monthly clinic may, however, be held at Hamilton Square next year.

**Postnatal clinics.**—Though antenatal care has been provided for a number of years, postnatal supervision of mothers (which may be just as important) has been almost entirely wanting. Such supervision as has been undertaken has been given at antenatal and infant welfare clinics, under circumstances of strain and inconvenience which have been unfair both to doctor and patient. The immense pressure of work



at these clinics has precluded the possibility of dealing except in the most cursory way with mothers who are debilitated, who have developed complications, or who are otherwise suffering as a result of confinement. A great volume of physical and nervous disability can be avoided by efficient postnatal supervision. This requires time which hitherto it has not been possible to give, despite the urgency of the need.

Developments are contemplated, however, which will go some way towards meeting it. Firstly, it may be possible by some rearrangement of the duties of the assistant medical officers for an *ad hoc* postnatal clinic, which will serve both the central and north parts of the town, to be held once monthly at Hamilton Square. Secondly, it is hoped that Mr. Herd, the consulting obstetrician, may be engaged for a further weekly session to take charge of a weekly consultative postnatal clinic, to which cases may be referred not only from the clinics but from hospitals and general practitioners.

### ADMINISTRATIVE ARRANGEMENTS

**Staff.**—The following table shows the disposition of the medical staff engaged on duties in connection with Maternity and Child Welfare work:—

	Antenatal	Infant Welfare	Toddlers
Hamilton Square	Dr. Unsworth	Dr. Unsworth	—
North .....	Dr. Unsworth	Dr. Williams	Dr. Williams
South .....	Mr. Herd	Dr. Blackstock	Dr. Blackstock
Mount Grove ...	—	Dr. Dodd	—

In addition to the part-time services of the Chief Health Nurse and the whole-time services of the Assistant Supervisor of Midwives, the equivalent of the whole time of ten nurses was available at the end of the year. Dr. Unsworth was appointed Medical Supervisor of Midwives; Miss M. M. Graham acting throughout the year as Assistant Supervisor.

The services of the Consultant Obstetrician and Gynaecologist (Mr. Herd) are available for difficult cases sent by the Assistant Medical Officers and by medical practitioners in the area.

### INSPECTION AND SUPERVISION OF MIDWIVES

**Number of midwives.**—During the year 98 midwives (only 2 of whom were untrained) gave notice of their intention to practise in the borough. 62 were in domiciliary and 26 in institutional practice.

3 midwives surrendered their certificates under the terms of the Midwives Act, 1936.

**Number of cases attended by midwives.**—The cases attended by midwives alone (no doctor being in attendance) numbered 2,165; three-quarters of the total births in the Borough.

**Work carried out by Assistant Supervisor of Midwives.**—Below is set out a summary of this work.

Inspection of midwives: Visits to midwives' homes .....	240
Interviews in office .....	146

Visits in connection with—

cases requiring medical aid .....	916
necessitous midwifery cases .....	280
cases of puerperal fever and pyrexia .....	21
cases of ophthalmia neonatorum .....	6
cases of stillbirth .....	29
expectant mothers .....	76
Other visits .....	288
Attendances at antenatal clinics .....	95

**Cases requiring medical aid.**—451 cases were notified by midwives in which medical aid had been called, as against 527 last year.

**Notifications received from midwives.**—The following notifications were received:—

Stillbirths .....	24
Substitution of artificial feeding .....	14
Deaths .....	1

**Ophthalmia neonatorum.**—6 cases were notified during the year. 5 of these were treated at home, the other case being dealt with in hospital. Vision was unimpaired in 5 cases. One case was still under treatment at the end of the year.

**Salaried midwives.**—The twelve midwives appointed by the Corporation under the provisions of the Midwives Act, 1936, took up duties on the 4th October. The following is a summary of their work:

Number of bookings (including those previously made)	451
Number of births .....	191

The agreement between the Corporation and the Birkenhead Maternity Hospital, whereby the Corporation agree to pay to the Hospital an annual sum equivalent to the salary of a municipal midwife, came into operation on the 6th December. The Hospital midwife carried out work as follows:

Number of bookings (including those previously made)	11
Number of births .....	8

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:—

- 2084 routine first visits were paid to infants.
- 4523 routine revisits were paid to infants under 1 year old.
- 10974 routine visits were paid to children over 1 year and under 5 years old.
- 22 first visits and 7 revisits were paid in connection with the investigation of stillbirths.
- 4 cases of ophthalmia neonatorum were visited and kept under supervision.

*Maternity and child welfare*

- 226 first visits were paid to expectant mothers.  
 136 revisits were paid to expectant mothers.  
 110 visits were made in connection with deaths of infants.  
 176 visits were made in connection with miscellaneous matters.  
 2624 visits were made in which no access could be obtained.

## INFANT WELFARE CLINICS

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

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

South 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. (98 sessions)		South (103 sessions)		Mount Grove (50 sessions)		North (103 sessions)		Totals	
	1st visits	Re-visits	1st visits	Re-visits	1st visits	Re-visits	1st visits	Re-visits	1st visits	Re-visits
Attendances made by infants under 12 months ....	264	5502	401	6873	144	2079	399	6773	1208	21227
Attendances made by children aged 1—2 years	13	297	8	981	8	173	8	443	37	1894
Attendances made by children aged 2—5 years	25	121	13	297	10	94	3	65	51	577
								Total	1296	23698
Examinations of children by doctor .....	298	3167	419	3519	147	1052	376	3530	1240	11268

**Voluntary workers.**—I have again to express appreciation of the valuable services given at the various clinics by voluntary workers, who gave 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

- 322 nursing mothers,  
 810 children and  
 354 expectant mothers.

As a general rule 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.



Doctor's room at Infant Welfare Clinic

It is within the discretion of the assistant medical officers to extend the period of supply in the two latter cases. In all cases it must be ascertained that the supply is essential for the maintenance of health.

### TODDLERS CLINICS

These clinics were held once weekly at the North and South Clinics.

Below are particulars of the work carried out :—

	North (48 sessions)		South (46 sessions)		Totals	
	1st Visits	Re- Visits	1st Visits	Re- Visits	1st Visits	Re- Visits
Attendances made by children aged 1-2 years ... ..	17	580	31	489	48	1069
Attendances made by children aged 2-5 years ... ..	32	436	76	737	108	1173
			Total ..		156	2242

### ANTENATAL CLINICS

Antenatal clinics were held once weekly at Hamilton Square, the North Clinic and the South Clinic. Clinics were held on 154 occasions; the number of patients dealt with being 1,081 and the total number of attendances made being 4,785. Of this total 135 patients carried over from 1936 made 703 attendances.

**Condition with regard to pregnancy.**—The condition with regard to pregnancy of the 946 new cases at the time of their first visit was as follows:—

- (a) 287 were in their first pregnancy.
- (b) 617 were in their second or subsequent pregnancy (181 of these patients had attended the clinic during a previous pregnancy; 67 during two previous pregnancies; 29 during three previous pregnancies; 18 during four previous pregnancies; 10 during five previous pregnancies; 4 during six previous pregnancies; and 5 during seven or more previous pregnancies).
- (c) 42 were not pregnant.

**Abnormalities.**—The abnormalities or diseases found to be present in the new cases who attended the clinics during 1937 were as follows :

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

Abnormality or disease	No. of cases
Tuberculosis .....	3
Cardiac disease .....	4
Albuminuria .....	3

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

Abnormality or disease	No. of cases
Venereal diseases .....	4
Varicose veins .....	5
Albuminuria .....	3
Tuberculosis .....	1
Cardiac disease .....	6
Epilepsy .....	1
Gallstones .....	2

**Progress of pregnancies.—**(1) *New cases*

(a) Of the 287 women who came in their first pregnancy 197 were delivered before the end of 1937, having 102 boys and 96 girls (including 1 set of twins and 7 still-born children).

7 left the district.

83 were not delivered before the end of the year.

(b) Of the 617 women who had had previous pregnancies 428 were delivered before the end of the year, having 216 boys and 220 girls (including 8 sets of twins and 23 stillborn children).

4 had miscarriages.

4 left the district.

181 were not delivered before the end of the year.

(2) *Cases carried forward from 1936 (135 patients)*

(a) Of the 49 women who came in their first pregnancy 47 were delivered during the year, having 27 boys and 20 girls (including 1 stillbirth).

2 left the district.

(b) Of the 86 women who had had previous pregnancies 85 were delivered during the year, having 41 boys and 46 girls (including 1 set of twins and 4 stillbirths).

1 left the district.

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

HAMILTON SQUARE CLINIC  
(52 Sessions)

	First pregnancy	Subsequent pregnancy	Non-pregnant	From 1936	Total
Cases .....	100	266	16	63	445
Attendances.....	298	1201	18	337	1854

NORTH CLINIC  
(50 Sessions)

	First pregnancy	Subsequent pregnancy	Non-pregnant	From 1936	Total
Cases .....	80	186	14	31	311
Attendances.....	317	905	22	141	1385

SOUTH CLINIC  
(52 Sessions)

	First pregnancy	Subsequent pregnancy	Non-pregnant	From 1936	Total
Cases .....	107	165	12	41	325
Attendances .....	501	799	21	225	1546

**Maternity outfits.**—1 outfit was lent out and returned during the year.

POSTNATAL CASES

A small amount of postnatal work was carried out at antenatal clinics (see page 79) as follows :

Clinic	Cases	Attendances
Hamilton Square .....	20	37
North .....	7	10
South .....	23	27

ARTIFICIAL SUNLIGHT TREATMENT

Artificial sunlight treatment was given to cases attending at the North and South Health Clinics. 82 sessions were held during the year. 42 cases attended for the first time, a total of 481 attendances being made. Dr. Williams and Dr. Blackstock were in charge of this work.

## INFANT LIFE PROTECTION

At the end of the year the names of 70 children were entered on the register in accordance with the provisions of Section 65 of the Children and Young Persons Act, 1932, as having been taken by persons to keep for reward. 16 children were in St. Faith's Home, 15 in Christ Church Home, 6 in All Saints' Home, and 33 in charge of foster parents at private dwellings.

The Health Nurses paid 6 first visits and 299 revisits to these children.

## OTHER PROVISION MADE BY THE LOCAL AUTHORITY

**Cases dealt with at Maternity Hospital.**—Under the agreement with the Hospital cases of complicated pregnancy, or who live in unsuitable conditions, are admitted to the Hospital for their confinements. Payment at the rate of 10/- per in-patient day is made by the Corporation; the total annual payment not to be under £100 or over £400.

During the year 18 cases were admitted under the terms of the agreement. In respect of the financial year 1936-1937 the payment to the Hospital was £100.

**Cases dealt with by the Birkenhead District Nursing Society.**—Under the agreement with the Society the Corporation makes an annual payment of £90 to the Society in respect of attendance upon expectant and nursing mothers, and young children under the age of five years suffering from certain conditions.

During the year the Society's nurses paid 736 visits to 39 cases; and in addition paid 1,021 visits to 134 children for conditions not covered by the agreement.

**Cases of confinements attended by medical practitioners.**—In 330 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. Accounts for the full amount of the fees in 107 cases, and of part of the amount in 7 cases, were rendered to patients.

**Temporarily necessitous cases attended by midwives.**—In 212 cases where midwives attended temporarily necessitous cases of confinement the midwives' fees were paid by the Corporation under the Public Health Act, 1936, from 1st October, 1937. Accounts for the full amount of the fee in 3 cases, and of part of the amount in 7 cases, were rendered to patients.

## 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 1937, 39 children were sent to convalescent homes by the Association.

\* Under the Public Health Act, 1936, from 1st October, 1937.



**St. Faith's Home for Mothers and Babies.**—Here accommodation is provided for unmarried mothers and their children—22 cots for babies and 14 beds for mothers. The number of cases admitted to the Home during the year was as follows:—

Expectant mothers .....	16
Mothers with babies .....	1
Babies .....	4

**Birkenhead Maternity Hospital.**—There are 29 beds provided at the hospital, including 3 isolation and 2 labour beds. The number of cases admitted during the year was 558.

4 beds are provided for delicate babies. 26 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:* Patients 584; attendances 3,509.

*Infant welfare clinic:* children under 1 year—  
1st visits 262; revisits 2,097.  
children 1—5 years—  
1st visits —; revisits 70.

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

*Antenatal clinic:* Patients 52; attendances 104.

*Infant welfare clinic:* children under 1 year—  
1st visits 130; revisits 1,098.  
children 1—5 years—  
1st visits 9; revisits 689.

**Financial assistance.**—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

\*In view of the agreement (Midwives Act 1936) to pay to the Hospital an annual sum equivalent to the salary of a municipal midwife this sum ceased to be paid after 6th December.

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

## MATERNAL MORTALITY

The Registrar-General's annual statement of causes of death includes 3 deaths connected with pregnancy and childbirth.

This gives a maternal mortality rate of 1.2 per 1,000 births (living and still), as compared with a rate of 3.11 for the whole country.

The causes of the deaths were as follows:—

Puerperal sepsis .....	1
Other puerperal conditions .....	2

**MISCELLANEOUS****NURSING HOMES**

Under the Public Health Act, 1936, any premises used " for the reception of and the providing of nursing for persons suffering from any sickness, injury or infirmity " (excluding Government and municipal hospitals and those established by Act of Parliament or Royal Charter) are required to be registered by the local authority, which has the power to exempt institutions not carried on for profit. The owners of non-registered homes are subject to penalty.

It is the duty of the local authority to inspect and generally to supervise registered nursing homes; and it can, if it thinks fit, cancel registration.

At the end of the year the number of nursing homes registered in the Borough was 15; an addition of one on last year's total. One nursing home was re-registered following change of ownership. All these homes were inspected quarterly by an Assistant Medical Officer. They were generally maintained efficiently; suggestions as to minor improvements in various ways usually being adopted readily by the owners.

**OCCUPATIONS**

The staple industries of the district are shipbuilding, ship-repairing and engineering.

The Registrar-General's returns setting out the occupations of persons resident in the Borough at the time of the 1931 census became available in 1934, and were published in my annual report for that year.

## HEALTH OF SCHOOL CHILDREN

**Staff.**—The Medical Staff engaged in carrying out School Medical Service duties at the end of the year consisted of Dr. Blackstock, Dr. Williams, Dr. Unsworth, Dr. Sandilands, Dr. Dodd and Dr. Marsh; the last-named being engaged on part-time duty.

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

**Co-ordination.**—All the Assistant School Medical Officers (with the exception of Dr. Marsh) are also Assistant Medical Officers of Health, and the health nurses are engaged in all sections of the Department's work. Co-ordination between the school medical services and the other health services of the Corporation is thus very effective in regard to staff. So far as possible, each doctor is responsible for the supervision of children in a particular area of the town from their infancy up to the time of their leaving school. A beginning was enabled to be made during the year with the systematic transfer of the medical history of toddlers to the school medical inspection schedules.

The ready co-operation of the Director of Education and his staff has again been much appreciated.

**Routine Medical Inspections.**—In last year's Annual Report the hope was expressed that, as a result of increased medical staff, it would be possible to carry out medical examinations in more detail. The likelihood of a consequent rise in the number of recorded defects was suggested. A comparison of the figures given in the table on page 99 with those in the table in last year's Report shows that this has been the case. Though there has been a rise generally speaking in the number of cases of each defect, it is in respect of three groups of defect that almost the whole of the total increase is recorded. These groups are defective vision (369 cases against 219), non-particularised forms of deformity (128 against 22) and unspecified defects and diseases (111 against 48). Each of these groups comprise defects which are not readily apparent and so require an amount of time for their detection which hitherto has not always been available. Visual defects, for instance, may be co-existent with a child's ability to read the lowest line of type on the test-card. Facial appearance, history of headaches and other circumstances suggestive of long sight can only be taken into account if there is sufficient time to be able to do more than accept the evidence of the test-card as conclusive. Certain orthopaedic defects, again, may fairly easily go unnoticed when a rapid survey of a child's posture and stance is all that can be attempted. While a marked degree of kyphosis naturally does not escape attention, such a deformity as flat foot may often do so, particularly if the child does not complain. The group "other defects and disease" covers a number of conditions which, because they do not give rise to obvious symptoms, may remain concealed unless a reasonably detailed examination can be made.

The increase in the number of defects found as a result of this more exhaustive examination is reflected in a corresponding increase in the number of defects requiring to be kept under observation. The

relatively greater increase was indeed to be expected: it is evidence of the discovery of many other conditions which, because generally they are not so marked as to need treatment, are still less likely to have been found without particular care.

**Examination of the 4th Age-group.**—Towards the end of 1936 a beginning was made with the systematic examination of children in the last term of their school life. The carrying out of this work, and also of nutrition surveys, was made possible by the appointment of an additional assistant medical officer.

A final medical examination of children as short a time as possible before they leave school has for long been felt to be desirable. Though examination at the age of twelve is important, and is being continued, this leaves at least two and in many cases three years of school life during which children are without medical supervision—except of course for obvious defects, which may be brought to the notice of a school doctor at any time, either in school or at a clinic. Less evident conditions, however, will in many cases escape attention because of the want of medical examination. This means (a) that the child does not get treatment at a time when this may be most easily effective; and (b) that he may take up a form of employment which may be inimical to his health.

Over 11 per cent. of 14-year-olds examined during the year were found to be suffering from various forms of defect, apart from dental defects. These cases were "followed up" as far as practicable to ascertain if treatment had been secured. Owing to the (usually) short space of time between examination and withdrawal from school it is not possible to get a complete picture of the extent to which treatment is obtained; but the majority of parents appear anxious to carry out the recommendations of the assistant medical officers while clinic facilities are still available.

This fourth examination will have an important bearing on the National Health Insurance (Juvenile Contributors and Young Persons) Act 1937, the provisions of which come into operation in April of next year. The Act brings into the scope of national health insurance all children on their leaving school, and provides that school medical records shall be available to panel practitioners. The value to the latter of a record up to within a short time of a child's leaving school is apparent.

**School Hygiene.**—Regular inspections of the premises of all public elementary schools is carried out by the Assistant School Medical Officers. Particular attention is given to the condition of the sanitary conveniences, lavatories, cloakrooms and playgrounds; and to the adequacy of ventilation and lighting. The standard in the council schools generally is high; but there are grounds for criticism in certain directions in regard to some of the older voluntary schools. Reports on any defects or deficiencies are sent to the Director of Education.

**Open-air School.**—The hope entertained last year that an open-air school would shortly be provided has not been fulfilled. Certain steps which had been taken were found to lead nowhere, and Birkenhead therefore continues to remain one of a dwindling number of the larger towns which makes no provision for its delicate and debilitated children

in this way. The value of open-air education to this type of child is well proved and has indeed for a generation been beyond dispute; its value to the interests of the community is not less great. Much chronic ill-health, with its deleterious effects upon the national economy, can be obviated by a wise expenditure on preventive measures at a time when these have the best chance of being effective.

**Partial Deafness.**—The incidence of partial deafness has not hitherto been ascertainable in the absence of any scientific means of detecting this condition. The child who is totally, or almost totally, deaf very quickly draws attention to himself. The child who is hard of hearing, on the other hand, is often accused of being indifferent or mentally backward, and frequently is not himself aware that his hearing acuity is imperfect. Some method of measuring the degree of hearing of all children is therefore necessary if those who are below normal in this respect are to be discovered and appropriate steps taken to deal with them. Such steps include the provision of medical treatment (removal of wax, etc.) where this is indicated, seating in the front row of the classroom and (in severe cases) education in a school for the deaf.

Some enquiries have been made as to a suitable type of audiometer, an instrument for the measurement of hearing, and it is anticipated that next year one will be available for use in the schools.

**Partial Blindness.**—Children who are classed as partially blind fall into two groups: (a) those whose defect is not likely to grow worse, and (b) those where it probably will do so. Both types of child need special methods of education: individual attention, use of books with large print, concentration upon forms of handwork which do not involve strain upon the eyes. The second type, however, need special education not only for the benefits which education brings but as a preventive measure against visual deterioration. Myopia especially is the type of defect which tends to progress, even when it is of low degree, and demands therefore particular care. When it is marked the danger of degeneration into blindness must if possible be guarded against; this requires attention to the general health, avoidance of heavy physical strain and prohibition of unnecessary use of the eyes.

A special class for partially-sighted children fulfils therefore a dual purpose. Such a class is difficult to organise. The children are of varying ages, abilities and degrees of sight, and because of this need a great deal of individual attention from the teacher. As a result the number of children with whom a teacher can deal is small, which makes the cost of a sight-saving class relatively high. Other circumstances (the difficulty of collecting children from a wide area, for instance) tend to keep the provision of these classes to a minimum.

It has not been felt practicable in Birkenhead to have more than one class, although, as will be seen from the table on page 101, 41 children have been certified to have such poor sight as to require this special education. This being the case, it is necessary to exercise selection in regard to admission to the class. The children for whom preventive measures are of even greater importance than their education should always be those to whom priority is given; a new case of this type indeed should if necessary displace a child whose defect is unlikely either to improve or deteriorate.

**Physical Training.**—In another section of this Report reference is made to the growing number of cases of minor orthopaedic defectiveness which have been ascertained as a result of more exhaustive medical examination now being possible. This increase has raised a difficulty for which it is hoped a solution will be discovered next year. Dr. Hartley Martin has found himself scarcely able to deal with the number of cases referred to the Orthopaedic Clinic, and the accommodation is being taxed beyond its capacity. Many of these defects are responsive to remedial exercises which can properly be carried out on Dr. Hartley Martin's instructions as part of the physical training given in the schools. The appointment of two organisers of physical training has provided the opportunity whereby arrangements can be made for the organisers to supervise these exercises and thus obviate frequent attendance by children at the clinic. Pressure on the clinic will thus be relieved and a considerable amount of absence from school avoided.

**Co-operation of Parents.**—The table given on page 121 shows a progressive decline in the percentages of parents attending routine medical inspections in schools as the age-groups rise. This is not evidence of intentionally waning interest, but rather a feeling that as older children are capable of bringing home a coherent message from the doctor there is no need for the parent's attendance. It is unfortunate that such should be the case. Information supplied by a parent is often very valuable to the doctor; and neither a verbal message, which may be incompletely or incorrectly conveyed, nor a brief note on a printed card, takes the place of a friendly talk between parent and doctor. No doubt the scanty waiting accommodation in many schools acts as a deterrent to attendance; but the importance of medical examination should outweigh temporary inconvenience.

**Severe Heart Disease.**—The only form of educational provision for children suffering from severe heart disease who are unable to attend ordinary schools is that made by the Birkenhead and Wirral Invalid Children's Association. The experimental classes held by the Association provide occupation and interest for these greatly handicapped children in circumstances which preclude the risk of undue strain. Dr. A. Dingwall Fordyce periodically examines the children, who are kept under the general supervision of the Assistant Medical Officer on duty at the North Health Clinic, at which the classes are held. The value of the work undertaken by the Association is not diminished by the fact that only about half the children certified to have severe heart disease can be dealt with at the classes. To make complete provision is beyond the resources of the Association. The same problem arises in the case of these children as in the case of other relatively small groups. Attendance at a special class involves for many of the children travelling a considerable distance. Their varying ages make satisfactory teaching difficult. As for heart sufferers, these children are unfit to make long journeys unless special transport is provided, which adds greatly to the cost of their education. Nevertheless, since many of these children, because of enforced physical inactivity, are naturally studious it is important that educational provision should be made for them.

**Speech Training.**—Close contact has continued between the medical staff and the speech training classes. All cases proposed for admission to and discharge from the classes are medically examined

by an assistant medical officer. This procedure has proved of great value. In a number of cases defective speech has been found to be due to conditions requiring other forms of treatment, which have been responsible for correcting the speech defect or which have needed to be carried out for speech training to be effective. Such conditions have included enlarged tonsils, cleft palate, decayed teeth and nasal paresis following diphtheria. Again, speech defects may be traced to unsatisfactory home conditions. Children suffering from no physical disability have been admitted or discharged as a result of consultation between the doctor and the teacher, both of whom benefit by this co-operation.

The importance of overcoming speech defects is now generally appreciated. So far from being an object of ridicule, the stammering child is recognised to be suffering from a condition which not only prejudices him at school or at work but which may have serious psychological reactions.

**Child Guidance.**—From time to time during the past few years assistant medical officers, teachers and others have been glad to be able to refer children for examination and report to the Clinic of the Liverpool Child Guidance Council. As a consequence the Education Committee last year acceded to the Council's application for a grant in aid of their work, on condition that an annual statement in regard to Birkenhead cases is submitted.

A total of 18 children from Birkenhead was referred to the Clinic during 1937; 13 of these were in attendance at elementary or secondary schools. They exhibited a variety of "problems," including stealing, playing truant, untruthfulness, lack of concentration and sexual aberrations. Psychiatric interviews and home and school visits all play their part in treatment, which in most cases has to be continued for a considerable time.

The importance of patient investigation of the underlying causes that produce the difficult, unsocial child who does not fit into his environment is becoming more widely realised. The services of the Child Guidance Council are likely therefore to be more and more used; and it may be necessary before very long to consider the desirability of setting up a branch clinic in Birkenhead.

**Nutrition.**—Surveys of the nutritional condition of school children have been continued throughout the year. The primary purpose of the surveys is the ascertainment of children who are in need of supplementary nourishment and of those who, having had this provided by the Education Committee, as a result no longer require it. To achieve this purpose all children in school have to be examined at regular intervals, a total of approximately 45,000 examinations being made last year. For these examinations to be of any value a number of factors—height, weight, muscular development and others—must in each case be considered. A reasonable time must therefore be devoted to every child. With the present staff it is not possible for this to be given: an average of two minutes spent on each of the 45,000 examinations carried out last year would have fully occupied two doctors. The work consequently had to be done at such a speed that little more than a cursory inspection of each child could be undertaken, and it was not feasible to keep more than simple records.



As a result of experience gained, however, a broad uniformity in the method of approach in examination has been established, and there is little variation in ascertainment between the assistant medical officers. It is unlikely that any child who bears the more obvious signs of malnutrition has been missed; but as malnutrition exhibits itself also in a number of less easily detected ways the present method of carrying out these surveys cannot be regarded as satisfactory. However, as children from homes where incomes are below a set scale are, for this reason, eligible for free meals the absence of a medical certificate does not preclude them from receiving supplementary nourishment. But children from relatively good homes may suffer from malnutrition, as a result of faulty feeding or other causes. These children may be missed during a survey and the chance thereby be lost of advising parents as to a more suitable dietary.

The nutritional condition of children is assessed also during routine medical inspections. These provide much more favourable occasions for scientific ascertainment, and the results (see table on page 100) are therefore more indicative of the true position. Compared with 1936 there is little change, the proportion of children classed as excellent and normal being almost exactly the same (93.9% as against 94.6%).

Certain changes were made in the dietary of children receiving free meals. These were mainly in the direction of securing a proper balance in a child's daily food by providing those constituents commonly missing in its domestic meals.

**Health Education.**—During the past few years a number of head teachers have arranged with health nurses to give talks to the children on such subjects as personal hygiene and mothercraft. This is an admirable way of interesting children in a branch of knowledge which is of great importance to them; and it is encouraging that the practice is growing.

Approximately 2,000 senior children drawn from all the schools attended the demonstration of the Dental Board of the United Kingdom which was held for a week in December at the North and South Clinics and at several schools. The value of the demonstration would be considerably enhanced if the impression made by the lecturer and the exhibits could be "followed up" by the writing of essays and systematic enquiry into the number of children who had assimilated what they had heard and seen, and were regularly using toothbrushes and observing the simple rules of dental hygiene. Sporadic propaganda has little lasting effect.

During the last few months of the year the national "Use Your Health Services" campaign utilised the schools as a medium for distributing large quantities of printed material, a particular aspect of the public health service being dealt with each month. In addition, pictorial posters were supplied to form the basis of talks by the teachers.

**ELEMENTARY SCHOOLS**

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

Council Schools .....	22		
Voluntary Schools .....	20	Total	42

The recognised accommodation of these schools was :

Council Schools .....	16,849		
Voluntary Schools .....	10,927	Total	27,776

The average number of scholars on the rolls was :

Council Schools .....	12,540		
Voluntary Schools .....	8,071	Total	20,611

The average attendance was:

Council Schools .....	11,011		
Voluntary Schools .....	6,939	Total	17,950

**MEDICAL INSPECTION**

(see note a)

**A.—ROUTINE MEDICAL INSPECTIONS**

Number of Inspections in the Prescribed Groups (see note b)—

Entrants .....	1993
Second age group .....	2082
Third age group .....	1874
Total .....	5949

Number of other Routine Inspections (see note c)

Fourth age group .....	1721
Cloughton Road C. School .....	69
Sight-Saving Class .....	21
Total .....	1811
Grand Total .....	7760

**B.—OTHER INSPECTIONS**

Number of Special Inspections (see note d) .....

In schools .....	51
In clinics .....	4293

Number of Re-inspections (see note e) .....

In schools .....	2009
In clinics .....	2585

Total .....

8938

**CHILDREN FOUND TO REQUIRE TREATMENT**

Number of individual children found at Routine Medical Inspection to Require Treatment (excluding Defects of Nutrition, Uncleanliness and Dental Diseases).

Note.—No individual child is counted more than once in any column of this Table; for example, a child suffering from defective

vision and from adenoids appears once in Column 2, once in Column 3 and once only in Column 4. Similarly a child suffering from two defects other than defective vision appears once only in Column 3 and once in Column 4.

Group. (1)	For defective vision (excluding squint). (2)	For all other conditions recorded in table on p. 11. (3)	Total. (4)
Entrants.....	3	316	279
Second Age Group.....	80	126	177
Third Age Group.....	142	156	241
Total (Prescribed Groups).....	225	598	697
Other Routine Inspections.....	144	113	205
Grand Total.....	369	711	902

NOTES ON TABLES (page 97)

(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 inspection 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 is recorded *routine* inspections, if any, of children who do not fall under the three prescribed 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 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, School 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 the table on page 9 headed "Medical Inspection" and its special inspection in Part B. The inspection 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 is 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 one of

the Authority's Medical Officers, this is recorded as a special inspection or re-inspection as the case may be, even if treatment is also given; but such attendance is also of course recorded as an attendance for treatment.

RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION

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>Skin</i> .....				
(1) Ringworm—Scalp .....	—	—	4	—
(2) „ —Body .....	1	1	8	—
(3) Scabies .....	8	1	85	—
(4) Impetigo .....	6	—	90	—
(5) Other diseases (non-tuberculous).....	11	9	132	—
<i>Eye</i> .....				
(6) Blepharitis .....	21	7	53	—
(7) Conjunctivitis .....	6	5	73	—
(8) Keratitis .....	—	1	—	—
(9) Corneal opacities .....	1	1	11	—
(10) Other conditions (excluding defective vision and squint) .....	3	5	68	—
(11) Defective vision (excluding squint)...	369	210	46	1
(12) Squint .....	60	16	16	—
<i>Ear</i> .....				
(13) Defective hearing .....	7	3	17	—
(14) Otitis media .....	21	10	124	—
(15) Other ear diseases .....	14	1	67	—
<i>Nose and throat.</i>				
(16) Chronic tonsillitis only .....	98	145	225	1
(17) Adenoids only .....	12	18	18	—
(18) Chronic tonsillitis and adenoids .....	24	9	18	—
(19) Other conditions .....	45	40	184	—
(20) Enlarged cervical glands (non-tuberculous) .....	15	55	69	—
(21) Defective speech .....	2	22	6	—
<i>Heart and circulation</i> .....				
(22) Heart disease—Organic .....	—	1	1	—
(23) „ —Functional .....	19	80	9	—
(24) Anæmia .....	28	16	31	—
<i>Lungs</i> .....				
(25) Bronchitis .....	13	12	33	—
(26) Other non-tuberculous diseases .....	30	52	52	—
<i>Tuberculosis</i>				
(27) Pulmonary—Definite .....	1	4	—	—
(28) „ Suspected .....	3	—	4	—
(29) Non-pulmonary—Glands .....	—	1	—	—
(30) „ Bones and joints.....	—	1	—	—
(31) „ Skin .....	—	—	—	—
(32) „ Other forms.....	3	—	—	—
<i>Nervous system.</i>				
(33) Epilepsy .....	2	—	—	—
(34) Chorea.....	1	1	10	—
(35) Other conditions .....	1	1	7	—
<i>Deformities</i> .....				
(36) Rickets .....	—	5	—	—
(37) Spinal curvature .....	16	9	1	—
(38) Other forms .....	128	52	20	—
(39) Other defects and diseases (excluding Defects of Nutrition, Uncleanliness and Dental Diseases)	111	84	2714	—
<b>TOTAL.....</b>	<b>1080</b>	<b>878</b>	<b>4196</b>	<b>2</b>

**CLASSIFICATION OF THE NUTRITION OF CHILDREN  
INSPECTED DURING THE YEAR IN THE  
ROUTINE AGE GROUPS**

(see Administrative Memorandum No. 124, dated 31st December, 1934)

Age groups	Number of Children Inspected	A (Excellent)		B (Normal)		C (Slightly subnormal)		D (Bad)	
		No.	%	No.	%	No.	%	No.	%
Entrants .....	1993	251	12.59	1605	80.53	136	6.83	1	0.05
Second Age Group ...	2082	332	15.99	1604	77.00	146	7.01	—	—
Third Age Group .....	1874	311	16.60	1462	78.00	101	5.40	—	—
Other Routine Inspections .....	1811	555	30.64	1166	64.39	90	4.97	—	—
Total.....	7760	1449	18.67	5837	75.22	473	6.10	1	0.01

**RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA**

The returns are in respect of all exceptional children in the area, and are not confined only to those for whom suitable accommodation is available.

For the purpose of this Table no child is included who has not been examined by the School Medical Officer, by a medical member of the Authority's staff, or by the Tuberculosis Officer.

The table is made up from the list of exceptional children as it stood on the last day of the calendar year.

Children sent by the Authority to day or residential schools outside the area are included in this table; children who are living in residential schools in the area, or attend day schools in the area, but who come from other areas, are not included.

*No child is entered under more than one heading in this form*

**BLIND CHILDREN**

A blind child is defined by Section 69 of the Education Act, 1921, as one who is "too blind to be able to read the ordinary school books used by children." This definition covers some children who are totally, or almost totally, blind and can only be appropriately taught in a school for blind children, and others who have partial sight and can be appropriately taught in a school for partially sighted children. Only the first class is included in this section.

At Certified Schools for the Blind	At Public Elementary Schools	At Other Institutions	At no School or Institution	Total
5	—	—	—	5

PARTIALLY SIGHTED CHILDREN

In this section are included only children 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 for the partially sighted.

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.

At Certified Schools for the Blind	At Certified Schools for the Partially Sighted	At Public Elementary Schools	At Other Institutions	At no School or Institution	Total
—	24	11	—	6	41

During the year, 4 new cases were added to the register. 8 boys and 16 girls were in attendance at the Sight-Saving Class held at Hemingford Street Council School.

Below is a classification of the defects from which these partially sighted children suffer.

Myopia .....	8
Myopic astigmatism .....	16
Corneal nebulae .....	1
Nystagmus .....	1
Hypermetropic astigmatism and nystagmus .....	2
Hypermetropia and nystagmus .....	2
Congenital cataract .....	2
Congenital cataract and nystagmus .....	1
Coloboma iris and choroid .....	2
Optic atrophy .....	3
Congenital aniridia .....	1
Congenital buphthalmos .....	1
Interstitial keratitis .....	1
	—
	41
	—

DEAF CHILDREN

A deaf child is defined by Section 69 of the Education Act, 1921, as one who is "too deaf to be taught in a class of hearing children in an elementary school." This definition covers some children who are totally, or almost totally, deaf and can only be appropriately taught in a school for deaf children, and others who have partial hearing and can be appropriately taught in a school for partially deaf children. Only the first class is included in this section.

At Certified Schools for the Deaf	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
16	—	—	—	16

## PARTIALLY DEAF CHILDREN

In this section are included children who can appropriately be taught only in a school for the partially deaf.

At Certified Schools for the Deaf	At Certified Schools for the Partially Deaf	At Public Elementary Schools	At Other Institutions	At no School or Institution	Total
—	—	2	—	—	2

## MENTALLY DEFECTIVE CHILDREN

Mentally defective children are children who, not being imbecile and not being merely dull or backward, are incapable by reason of mental defect 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 special schools for mentally defective children.

The following table includes all such children except those who have been notified to the Local Authority under the Mental Deficiency Act in accordance with Article 3 of the Mental Deficiency (Notification of Children) Regulations, 1928. Particulars relating to these children are entered in the return of notified children (see page 103).

At Certified Schools for Mentally Defective Children	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
86	13	1	2	102

*Claughton Road Council School.*—In accordance with the arrangements for ascertainment, 44 examinations of children suspected to be mentally defective were held at various schools and clinics during the year by the Assistant Medical Officers.

The results of these examinations are set out below:

Total number examined—Boys .....	32	
Girls .....	28	
	—	60
Number certified as mentally defective—Boys .....	10	
Girls .....	13	
	—	23*

\*Five of these were notified to the local Authority under the Mental Deficiency Acts.

Number recommended to continue in attendance at ordinary elementary schools—Boys .....	22	
Girls .....	15	
	—	37

11 children left the school during the year

(a) on reaching the age of 16 years .....	6*
(b) before reaching the age of 16 years .....	5†

\*Two notified to the Local Authority under the Mental Deficiency Acts.

†One notified to the Local Authority under the Mental Deficiency Acts.

A routine physical inspection of scholars attending the school was carried out. 69 children were examined, of whom 14 were found to have defects requiring medical or dental advice, the defects found being as follows:

Malnutrition .....	2
Skin disease .....	1
Defective vision .....	5
Squint .....	3
Defective hearing .....	1
Otitis media .....	1
Anaemia .....	1
Bronchitis .....	1
Deformity .....	1
Other defects .....	5

*Mental Deficiency (Notification of Children) Regulations, 1928.—*

Statement of the number of children notified during the year ended 31st December, 1937, by the Local Education Authority to the Local Mental Deficiency Authority.

Total number of children notified ..... 8

Analysis of the above total

Diagnosis.	Boys.	Girls.
1. (i) Children incapable of receiving <i>benefit or further benefit</i> from instruction in a Special School :		
(a) Idiots .....	—	—
(b) Imbeciles .....	1	1
(c) Others .....	—	4
(ii) Children unable to be instructed in a Special School without detriment to the interests of other children :		
(a) Moral defectives .....	—	—
(b) Others .....	—	—
2. Feeble-minded children notified on leaving a Special School on or before attaining the age of 16 .....	—	2
3. Feeble-minded children notified under Article 3, <i>i.e.</i> "special circumstances" cases .....	—	—
4. Children who in addition to being mentally defective were blind or deaf .....	—	—
Total.....	1	7



## EPILEPTIC CHILDREN

In this part of the table only those children are included who are epileptic within the meaning of the Act, i.e., children who, not being idiots or imbeciles, are unfit by reason of severe epilepsy to attend the ordinary public elementary schools.

(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.)

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
2	—	—	1	3

## PHYSICALLY DEFECTIVE CHILDREN

## A.—TUBERCULOUS CHILDREN

Only children diagnosed as tuberculous and requiring treatment for tuberculosis at a sanatorium, a dispensary, or elsewhere are recorded in this category. Children suffering from crippling due to tuberculosis which is regarded as being no longer in need of treatment are recorded as crippled children, provided that the degree of crippling conforms to the description of a crippled child given at the head of Section C below. All other tuberculous children who are regarded as being no longer in need of treatment are recorded as delicate children provided the Medical Officer is prepared to certify under Section 55 of the Education Act, 1921, that they are incapable by reason of physical defect of receiving proper benefit from the instruction in the ordinary Public Elementary Schools.

I.—CHILDREN SUFFERING FROM PULMONARY TUBERCULOSIS  
(Including pleura and intra-thoracic glands)

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
2	22	1	—	25

II.—CHILDREN SUFFERING FROM NON-PULMONARY TUBERCULOSIS  
(This category includes tuberculosis of all sites other than those shown in (I) above)

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
11	224	3	3	241

## B.—DELICATE CHILDREN

This section is confined to 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. Such

children are included irrespective of the actual provision of Open Air Schools in the area, or of the practicability in present circumstances of sending the children to Residential Schools. Children are not regarded as suitable for admission to an Open Air School unless the Medical Officer is prepared to certify under Section 55 of the Education Act, 1921, that they are incapable by reason of physical defect of receiving proper benefit from the instruction in the ordinary Public Elementary Schools.

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
—	13	—	—	13

#### C.—CRIPPLED CHILDREN

This section is confined to children (other than those diagnosed as suffering from tuberculosis and in need of treatment for that disease) who are suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life, i.e., children who generally speaking are unable to take part, in any complete sense, in physical exercises or games or such activities of the school curriculum as gardening or forms of handwork usually engaged in by other children, and in whose case the Medical Officer is prepared to certify under Section 55 of the Education Act, 1921, that they are incapable by reason of such physical defect of receiving proper benefit from the instruction in the ordinary Public Elementary Schools.

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
—	14	—	3	17

#### D.—CHILDREN WITH HEART DISEASE

This section is confined to children in whose case the Medical Officer is prepared to certify, under Section 55 of the Education Act, 1921, that they are incapable by reason of such physical defect of receiving proper benefit from the instruction in the ordinary Public Elementary Schools.

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
—	24	—	15	39

*Special Educational Classes.*—A total of 23 children, whose heart condition was too severe to permit of their attendance at an ordinary elementary school attended these classes, which are organised by the Invalid Children's Association.

#### CHILDREN SUFFERING FROM MULTIPLE DEFECTS

Mental defect and crippling ..... 2

Both these children are at Certified Special Schools.

## RETURN OF DEFECTS TREATED DURING THE YEAR

(see note a)

GROUP I.—MINOR AILMENTS (excluding Uncleanliness, for which see page 113).

Disease or defect (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—Ringworm—scalp—</i>			
(i.) X-Ray treatment .....	—	—	—
(ii.) Other treatment .....	3	—	3
Ringworm—body .....	8	—	8
Scabies .....	62	—	62
Impetigo.....	75	—	75
Other skin disease .....	115	1	116
<i>Minor eye defects</i> .....	170	—	170
(external and other, but excluding cases falling in Group II.)			
<i>Minor ear defects</i> .....	173	2	175
<i>Miscellaneous</i> .....	1948	7	1955
(e.g., minor injuries, bruises, sores, chilblains, &c.)			
Total .....	2554	10	2564

The number of children who received treatment at the General School Clinic was 2,348; the total attendances numbered 11,637.

During the past year, the Health Nurses paid 852 visits to the homes of children with defects in connection with "following up"—739 first visits, 113 re-visits.

Of the children examined at routine and special inspections in ordinary schools during the year who were found to be suffering from defects requiring medical or dental attention, 361 received treatment before the end of the year.

## 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 <i>b</i> ) (2)	Otherwise (4)	Total (5)
Errors of refraction (including squint)	626	16	642
Other defect or disease of the eyes (excluding those recorded in Group I) .....	10	2	12
Total.....	636	18	654

	Under the Authority's Scheme	Otherwise	Total
No. of children for whom spectacles were			
(a) Prescribed .....	594	13	607
(b) Obtained .....	450	13	463

Dr. Williams continued in charge of the Eye Clinic.

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 410 new cases were examined. Spectacles were prescribed for 269 of these, the remainder being found to be emmetropic or cases for whom spectacles were of no benefit. 569 children attended for re-examination, and 450 pairs of spectacles (new or replaced) were supplied. The total cost of all the spectacles which were ordered during the year (including those ordered for secondary school children) was £126 3s. 6d., of which the parents were required to pay £120 18s. 6d. The total sum collected during the year (including arrears from previous years) was £110 8s. 9d.

18 new cases were examined and 21 re-examinations were carried out by Dr. Charters, the consultant ophthalmic surgeon, at the Birkenhead Municipal Hospital.

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	.....	110
Hypermetropia	.....	Hypermetropic astigmatism	...	12
Hypermetropia	.....	Normal	.....	2
Hypermetropic astigmatism	.....	Hypermetropic astigmatism	...	57
Hypermetropic astigmatism	.....	Mixed astigmatism	.....	5
Hypermetropic astigmatism	.....	Normal	.....	5
Myopia	.....	Myopia	.....	45
Myopia	.....	Normal	.....	6
Myopia	.....	Myopic astigmatism	.....	5
Myopia	.....	Hypermetropia	.....	1
Myopic astigmatism	.....	Myopic astigmatism	.....	14
Mixed astigmatism	.....	Mixed astigmatism	.....	3
Mixed astigmatism	.....	Myopic astigmatism	.....	1
Myopic astigmatism	.....	Normal	.....	1
Myopic astigmatism	.....	Hypermetropic astigmatism	...	2
				269

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

Cataract	.....	2
Corneal nebulae	.....	4
Nystagmus	.....	2
Trachoma	.....	1
Amblyopia	.....	19

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

Convergent: Right eye 27; left eye 42; alternating 7.

Divergent: Right eye 1; occasional 1.

#### 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)					
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)			(iv)
20	-	23	-	3	-	2	-	23	-	25	-	200	248

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and adenoids.

(iv) Other defects of the nose and throat.

A total of 278 children referred to Mr. Leathart, the consultant aurist and laryngologist, was examined by him. 243 children, after re-examination, were found to be improved or cured. This total includes those children who received operative treatment during the year.

GROUP IV.—ORTHOPÆDIC AND POSTURAL DEFECTS (*see note c*)

	Under the Authority's Scheme ( <i>see note b</i> ) (1)			Otherwise (2)			Total number treated ( <i>see note d</i> )
	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic (iii)	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic (iii)	
	(i)	(ii)	(iii)	(i)	(ii)	(iii)	
Number of children treated	8	9	314	—	—	—	331

1. *Examinations carried out at the clinic by the orthopaedic surgeon.*—At the Clinic Dr. Hartley Martin, the orthopaedic surgeon, attended on 30 occasions during the year. The after-care sister made 80 attendances.

268 new cases were dealt with, as compared with 182 in the previous year.

Tuberculous cases .....	3
Non-tuberculous cases—	
Under school age .....	99
Of school age .....	165
Over school age .....	1
	268

There were 853 re-examinations made, as compared with 761 in 1936:—

Tuberculous cases .....	57
Non-tuberculous cases—	
Under school age .....	285
Of school age .....	484
Over school age .....	27
	853

The average number of cases seen by the surgeon per session was 37.3.

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 1936	1937			Remaining at end of 1937			Discharges 1937					Died	
		New cases			School age			Cured	Relieved	Left district	Refused treatment	Unsuitable		
		Under	Of	Over	Under	Of	Over							
														Under
Infantile Paralysis ...	29	1	2	1	4	23	4	..	2	...	...	...	...	...
Spastic Paralysis .....	20	4	3	...	6	15	1	...	4	...	1	...	...	...
Rickets .....	71	24	2	...	47	25	...	15	...	3	7	...	...	...
Osteitis and Arthritis:														
(a) Tuberculous .....	35	...	3	...	1	22	1	8	5	1	...	...	...	..
(b) Non-Tuberculous ..	3	1	2	...	...	4	...	2	...	...	...	...	...	...
Congenital Deform. ...	34	7	4	...	14	25	1	3	1	...	...	1	...	...
Acquired Deform. ....	109	31	73	...	39	124	...	22	8	9	11	...	...	...
No Apparent Defects..	20	31	79	...	14	6	...	...	1	...	4	103	2	...
Totals ... ..	321	99	168	1	125	244	7	50	21	13	23	104	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 .....	66
Non-tuberculous cases—	
Under school age .....	935
Of school age .....	2942
Over school age .....	—
	—
	3943

In addition to the above, 1,575 attendances were made by non-clinic cases (that is to say, cases sent to the Association by orthopædic surgeons attached to voluntary hospitals, etc.) as follows:—

Under school age .....	64
Of school age .....	1480
Over school age .....	31

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

	Under School Age	Of School Age	Over School Age
Tuberculous cases—			
Clinic cases .....	—	11	2
Non-clinic cases .....	1	7	—
Non-tuberculous cases—			
Clinic cases .....	51	128	16
Non-clinic cases .....	23	74	8

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:

	Under School Age	Of School Age	Over School Age
Children supplied with milk—			
Tuberculous cases—			
Clinic cases .....	5	8	—
Non-clinic cases .....	1	—	—
Non-tuberculous cases—			
Clinic cases .....	129	55	—
Non-clinic cases .....	189	66	—
Children supplied with tonics—			
Tuberculous cases—			
Clinic cases .....	3	13	—
Non-clinic cases .....	1	—	—
Non-tuberculous cases—			
Clinic cases .....	102	79	—
Non-clinic cases .....	32	40	—
Children sent to Convalescent Homes and Country Hospitals—			
Tuberculous cases—			
Clinic cases .....	—	—	—
Non-clinic cases .....	—	4	—
Non-tuberculous cases—			
Clinic cases .....	31	92	—
Non-clinic cases .....	8	35	—

5. *Hospital Treatment.*—Of the 589 cases that have been on the register of the orthopædic clinic and regarded as suitable for

treatment during the past year, 34 (or 5.7%) required hospital treatment and were admitted to the Birkenhead Municipal Hospital and the Children's Hospital, Leasowe. These cases comprise

	Stay in Hospital	
	Cases	Days
Rickets, Bowlegs, Knocknee .....	12	1173
Congenital deformities .....	5	606
Acquired deformity .....	9	412
Infantile paralysis .....	5	703
Spastic paralysis .....	3	334

The total number of days in hospital was 3,228 (8.8 beds occupied throughout the year).

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.

7. *Treatment by Ultra-Violet Rays*.—Treatment of rickets and other deforming conditions is provided. Fuller details of the work carried out at the Clinics and by the Invalid Children's Association is given on the following page.

GROUP V.—TREATMENT BY ULTRA-VIOLET RAYS

At the North Health Clinic a total of 30 children of school age made 586 attendances during the year:

	Improved	Not Improved	Still under treatment at end of year
Debility .....	8	3	1
Tuberculosis .....	8	—	—
Other conditions .....	6	5	2
Total .....	22	8	3

At the South Health Clinic a total of 37 children of school age made 294 attendances during the year:

	Improved	Not Improved	Still under treatment at end of year
Debility .....	5	—	—
Tuberculosis .....	3	3	2
Rickets .....	1	—	1
Bronchitis .....	1	—	1
Bronchial Catarrh .....	8	—	3
Psoriasis .....	1	—	1
Erythema .....	1	—	—
Other conditions .....	9	5	5
Total .....	29	8	13

At the Invalid Children's Association premises, 23 children of school age made 364 attendances during the year:

	Improved	Not Improved	Still under treatment at end of year
Rickets .....	5	1	—
Debility .....	14	2	8
Tuberculosis .....	1	—	1
Total .....	20	3	9

In addition, 760 attendances were made by children below and above school age.



## DENTAL INSPECTION AND TREATMENT

(1) Number of children who were:—

(i) Inspected by the Dentist:

Routine age groups—

aged 5	544
aged 6	1705
aged 7	1811
aged 8	1925
aged 9	1861
aged 10	1799
aged 11	1663
aged 12	1426
aged 13	1208
aged 14	140

14082

(b) Specials (see note e) —

(c) TOTAL (Routine and Specials) 14082

(2) Number found to require treatment 10144

(3) Number actually treated 9632

(4) Attendances made by children for treatment 11820

(5) Half-days devoted to:—

Inspection	156
Treatment	1602
Total	1758

(6) Fillings (see note f):—

Permanent Teeth	5902
Temporary Teeth	85
Total	5987

(7) Extractions:—

Permanent Teeth	3707
Temporary Teeth	11060
Total	14767

(8) Administrations of general anaesthetic for extractions 1631

(9) Other Operations:—

Permanent Teeth	2498
Temporary Teeth	201
Total	2699

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

Clean	7805
Fairly clean	5067
Dirty	1210
Total	14082

**Condition of gums.**—The following figures show the condition of the gums of the children examined:

Gums healthy	12193
Gums inflamed	1158
Gums septic	731
Total	14082

**Condition of bite.**—This was found to be as set out below:

Bite good	9136
Bite fair	4146
Bite bad	800
Total	14082

Notices were sent to the parents of the 10,144 children found to require dental treatment, with the following results:

Refused to have treatment done or did not reply ...	701	( 6.9%)
Stated that treatment would be obtained privately ...	1480	(14.6%)
Requested treatment at the Dental Clinic .....	7963	(78.5%)
	10144	

Of the 7,963 children for whom treatment at the clinic was requested:

5634 were treated before the end of the year
1261 did not attend when sent for
1068 were awaiting treatment at the end of the year
7963

The total number of children treated at the clinic during 1937 was:

Following on 1936 inspections .....	559
Following on 1937 inspections .....	5634
Brought by parents on their own initiative .....	3439
	9632

8,915 children completed their treatments during the year.

2,574 parents paid 1s. each and 152 parents 6d. each for treatment for their children, the total amount paid being £132 10s. 0d. 7,103 children were treated free of charge.

### UNCLEANLINESS AND VERMINOUS CONDITIONS

(i) Average number of visits per school made during the year by the Health Nurses .....	15.7
(ii) Total number of examinations of children in the Schools by Health Nurses .....	73901
(iii) Number of <i>individual</i> children found unclean ( <i>see note g</i> ) .....	3086
(iv) Number of <i>individual</i> children cleansed under Section 87 (2) and (3) of the Education Act, 1921 .....	19
(v) Number of cases in which legal proceedings were taken :—	
(a) Under the Education Act, 1921 .....	—
(b) Under School Attendance Byelaws .....	—

In 23 cases of persistent neglect notices were served on the parents. The number who were compulsorily cleansed is shown above.

The Health Nurses paid 55 visits to the homes of children in regard to uncleanliness and verminous conditions (46 first visits, 9 re-visits).





## NOTES ON TABLES (Pages 106—113)

(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) Postural defects which received non-residential treatment otherwise than at an *orthopædic* clinic are not recorded in this Table.

(d) A child may be recorded in more than one category and therefore the total number of children treated will not necessarily be the same as the sum of the figures in the separate categories.

(e) 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.

(f) Temporary fillings, whether in permanent or temporary teeth, are recorded as other operations.

(g) (i) All cases of uncleanness, however slight, are recorded.

(ii) The return relates to individual children and not to instances of uncleanness.

**SECONDARY SCHOOLS**

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

(a) Provided by the Local Education Authority—	No. on Roll
The Birkenhead Institute (Boys) .....	413
The Girls Secondary School .....	475
Rock Ferry High School (Boys) .....	351
Park High School (Boys) .....	353
(b) Not provided by the Local Education Authority—	
The Higher Tranmere High School for Girls .....	214
The Convent Secondary School .....	312

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

**MEDICAL INSPECTION**

**A.—ROUTINE MEDICAL INSPECTIONS**

Number of Inspections ..... 2138

**B.—OTHER INSPECTIONS**

Number of Special Inspections .....	18
In schools .....	—
In clinics .....	18
Number of Re-Inspections .....	510
In schools .....	483
In clinics .....	27
Total .....	528

The following schools were inspected, the totals and numbers found defective being shown:

	No. Inspected	No. found * defective
Birkenhead Institute .....	391	59
Girls' Secondary School .....	549	73
Rock Ferry High School .....	398	68
Higher Tranmere High School for Girls ...	151	34
Park High School .....	375	54
Convent F.C.J. ....	266	30
	2130	318

\* Excluding those with defective teeth and defects of nutrition.

Included in the total are 370 who were inspected as entrants to these schools. 8 boys also were examined prior to entering the St. Francis Xavier College and the Catholic Institute.

## RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION

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)
Skin : scabies .....	—	—	1	—
ringworm—body .....	1	—	—	—
other diseases (non-tuberculous) .....	2	—	—	—
Eye : blepharitis .....	—	1	—	—
other conditions.....	1	2	4	—
defective vision (excluding squint) .....	143	158	—	—
squint .....	1	—	—	—
Ear : otitis media .....	6	2	1	—
other diseases.....	—	—	1	—
Nose and throat : chronic tonsillitis only.....	6	59	—	—
adenoids only.....	—	1	—	—
other conditions .....	2	14	1	—
Enlarged cervical glands (non tuberculous) .....	10	99	—	—
Heart and circulation :				
Heart disease—organic .....	—	1	—	—
functional .....	4	81	—	—
Anæmia .....	3	3	1	—
Lungs—Non tuberculous (not including bronchitis)	7	41	—	—
Deformities : spinal curvature.....	20	12	—	—
other forms .....	140	115	1	—
Other defects and diseases (excluding defects of nutrition, uncleanliness and dental diseases) ...	21	19	8	—
<b>Total number of defects ....</b>	<b>367</b>	<b>608</b>	<b>18</b>	<b>—</b>

## RETURN OF DEFECTS TREATED DURING THE YEAR

## TREATMENT TABLES

## GROUP I.—MINOR AILMENTS

Defect or disease.	Number of defects treated or under treatment during the year, under the Authority's scheme.
Skin—scabies .....	1
other diseases .....	3
Minor eye defects.....	1
Minor ear defect .....	2
Miscellaneous (e.g. minor injuries, bruises, etc.) .....	7
<b>Total .....</b>	<b>14</b>

14 children made 93 attendances for treatment during the year.

GROUP II.—DEFECTIVE VISION AND SQUINT (excluding Minor Eye Defects)

Defect or disease	No. of defects dealt with			
	Under the Authority's scheme	By private practitioner or at hospital, apart from the Authority's scheme	Otherwise	Total
(1)	(2)	(3)	(4)	(5)
Errors of Refraction (including squint) .....	60	--	—	60
Total.....	60	—	—	60

Total number of children for whom spectacles were prescribed—  
 (a) Under the Authority's scheme ..... 56  
 (b) Otherwise ..... —  
 Total number of children who obtained or received spectacles—  
 (a) Under the Authority's scheme ..... 47  
 (b) Otherwise ..... —

82 children were submitted to refraction at the Eye Clinic. Of the number with errors of refraction, 16 attended for the first time, and 44 were re-examinations.

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

First Eye	Second Eye	
Hypermetropia .....	Hypermetropia .....	1
Hypermetropic astigmatism .....	Myopic astigmatism .....	1
Hypermetropic astigmatism .....	Hypermetropic astigmatism ...	1
Myopia .....	Myopia .....	8
Myopia .....	Normal .....	2
Myopic astigmatism .....	Myopic astigmatism .....	3
		16

GROUP III.—ORTHOPAEDIC AND POSTURAL DEFECTS,

	Under the Authority's Scheme : non-residential treatment at an orthopaedic clinic.
Number of children treated .....	29

DENTAL TREATMENT

(1) Treated .....	197
(2) Attendances made by children for treatment .....	310
(3) Fillings—Permanent Teeth .....	387
Temporary Teeth .....	—
	387
(4) Extractions—Permanent Teeth .....	142
Temporary Teeth .....	21
	163
(5) Administrations of general anaesthetics for extractions .....	29
(6) Other Operations—Permanent Teeth .....	32



**MISCELLANEOUS**

**School Camp.**—The ninth school camp for children from the schools of Birkenhead was held during the period 28th May to 25th June.

Six hundred children who had been selected as being suitable cases to attend were medically examined. After numerous re-examinations, and treatment for various minor ailments in a number of children by the Health Nurses, 532 children (265 boys and 267 girls) were eventually passed as medically fit, and attended the camp at Dyserth, near Prestatyn.

Two Health Nurses were in attendance at the girls' camp for the purpose of giving first-aid or carrying out any necessary treatment for minor ailments.

**Vaccination.**—In the ordinary inspections children were examined as to vaccination marks. Of the 7,670 children examined,

2437 (31.8%)	showed no marks.
3274 (42.7%)	showed one mark.
525 (6.8%)	showed two marks.
184 (2.4%)	showed three marks.
1250 (16.3%)	showed four or more marks.

**Height and weight.**—Below is set out the average heights and weights (measured without footwear) of children comprising the groups examined during the course of routine inspections, together with the standard deviations:

Group	Height							
	Boys				Girls			
	No.	Ft.	Ins.	S.D. Ins.	No.	Ft.	Ins.	S.D. Ins.
Entrants .....	953	3	7.4	2.8	859	3	7.3	3.0
2nd Age Group .....	1037	4	0.7	2.5	953	4	0.6	2.5
3rd Age Group .....	828	4	8.6	3.1	972	4	9.2	3.5
4th Age Group .....	842	4	11.6	3.7	695	5	0.9	3.2

Group	Weight							
	Boys				Girls			
	No.	St.	Lbs.	S.D. Lbs.	No.	St.	Lbs.	S.D. Lbs.
Entrants .....	966	3	1.7	5.2	863	3	0.5	5.8
2nd Age Group .....	1042	3	13.4	6.3	954	3	12.0	7.2
3rd Age Group .....	830	5	8.2	11.3	967	5	11.0	14.1
4th Age Group .....	842	6	6.2	15.5	692	7	0.7	17.7

**Classes for stammering children.**—In addition to the quarterly visits paid to these classes by the Assistant Medical Officers, two examinations were made, covering a total of 59 children, with a view to admission to or withdrawal from these classes.

**Children and Young Persons Act, 1933.**—30 children summoned to appear before Police Courts were examined in accordance with the provisions of this Act.

**Employment of Children Byelaws.**—79 children were medically examined as to fitness for work under these byelaws. In 4 cases certificates were not granted.

**Provision of Meals.**—An average number of 691 children received meals each day, the total number of meals provided during the year being 176,140. Meals were supplied five days per week, with the exception of Bank and Public Holidays.

**Past Infectious Diseases.**—Enquiry was made at each routine medical inspection as to the infectious diseases from which the children might have suffered.

(1) Children aged 3—7

	No. of Cases	Percentage
No Infectious Disease .....	458	23.0
Measles .....	1207	60.6
Whooping Cough .....	818	41.0
Scarlet Fever .....	113	5.7
Diphtheria .....	85	4.3
Chicken Pox .....	589	29.6
Mumps .....	352	17.7

(2) Children aged 8—14

	No. of Cases	Percentage
No Infectious Disease .....	230	4.1
Measles .....	5187	91.4
Whooping Cough .....	3473	61.2
Scarlet Fever .....	383	6.7
Diphtheria .....	398	7.0
Chicken Pox .....	3064	54.0
Mumps .....	1900	33.5

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

**Co-operation of Parents.**—Parents attended at the examination of 4,471 (58.3%) of the 7,670 children dealt with at routine inspections.

Group	Parents Present
Entrants .....	81.6%
2nd age group .....	77.3%
3rd age group .....	41.1%
4th age group .....	27.0%

