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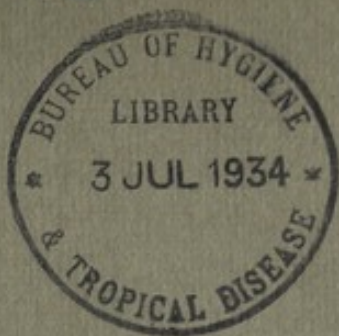
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COUNTY BOROUGH OF BIRKENHEAD



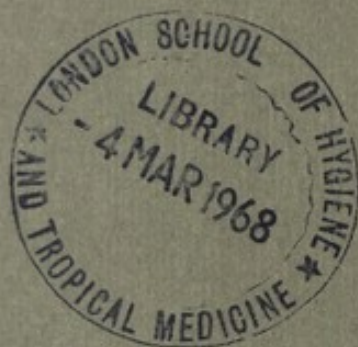
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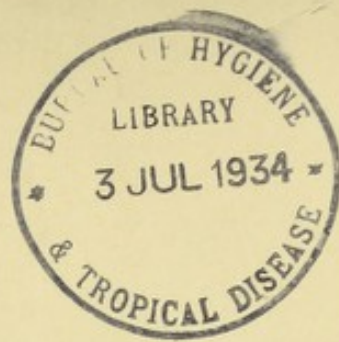
D. MORLEY MATHIESON, M.A., M.D.(Edin.), Ch.B., D.P.H.

Medical Officer of Health;

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

7188





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(31/12/1933)

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

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PREFACE

During the year a survey of the Public Health and Allied Services in the area was carried out by the following officers of the Ministry of Health: Dr. Donelan, Dr. Creaser, Dr. Evans, Mr. Bennett, and Miss O'Brien.

On the 1st April, 1933, the Borough boundaries were extended by the addition of the parishes of Bidston, Noctorum, Upton, Woodchurch and Arrowe (part of); the estimated population of the added areas at the time of the 1931 census was 3,742.

The appropriation of the Birkenhead Infirmary by the Health Committee as a hospital to be administered under the Public Health Acts, as an integral part of the Council's Public Health Services, which took effect on 1st April, 1933, was one of the most important events of the year. (From 1st January to 31st March the Infirmary was administered by the Public Assistance Committee as a Hospital under the Poor Law Acts).

This step was taken in accordance with the wishes of the Ministry of Health. The Local Government Act, 1929, aimed at closer co-ordination between the functions transferred from the old Poor Law Authorities with the public health activities already exercised by the local Council. With the appropriation of the Infirmary it will now be possible to arrange for close co-operation between the medical agencies of the Council. The services of the Infirmary medical staff and the Assistant Medical Officers will be available in connection with the various public health activities of the Local Authority.

It is the policy of the Health Committee, by extending the accommodation at the Infectious Diseases Hospital, to provide for the treatment here of cases of acute infectious disease which hitherto have, of necessity, been admitted to the Birkenhead Infirmary. The practice of admitting patients suffering from such readily transmitted diseases as whooping cough and chickenpox to the wards of a general hospital is obviously unsound.

The rapid development of the work of the Municipal Laboratory during the year is a clear indication of the need for the provision of adequate facilities for skilled bacteriological, biochemical, and pathological investigations in close contact with the municipal hospitals and sanatorium and with the municipal clinics. These facilities form indeed an essential part of the Council's organisation for the prevention and treatment of sickness and incapacity.

Towards the end of the year sanction was received from the Ministry of Health for the provision of a clinic at the South End of the Borough, similar to the one already provided at the North End.

I would again place on record my appreciation of the excellent work done by members of the staff during the year; of the help which has been received from the chief officials of other departments; and of the interest which has been shown in the work of the department by the Committees of the Council directly concerned.

SHORT STATISTICAL SUMMARY

1933

Area of the Borough	8,598 acres, or 13.4 square miles
Estimated population (at midsummer, 1933)	151,060
Number of persons per acre (density of population)	17.6
Approximate number of houses in Borough at end of 1933...	31,115
Number of inhabited houses at time of census, 1931	30,493
Number of families or separate occupiers at time of census, 1931	25,577
Rateable value, April, 1933	£955,596
Estimated product of penny rate, 1933-1934	£3,700
Birkenhead rates, 1933-1934	11/2 in the £
Birth-rate per 1,000 of the population	17.1
Death-rate ,, ,,	13.5
Average death-rate for the last ten years	12.4
Tuberculosis death-rate per 1,000 of the population	1.08
Infantile mortality rate (per 1,000 births)	99
Average number of children in elementary schools	23,121
Number of elementary school children medically inspected during year	8,015

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 410 new posts have been created, making a total of 2,316.

Medical examinations carried out during 1933.—During the past year 493 examinations of selected applicants for designated posts were carried out—a large increase as compared with 1932, when 66 applicants were examined.

Department	Designated Posts
Cleansing and Transport	107
Education	7
Electricity	103
Estates	2
Ferries	1
Gas	87
Libraries	2
Medical Officer's	51
Parks and Cemeteries.....	51
Police	2
Public Assistance	16
Surveyor's	44
Town Clerk's	2
Tramways	2
Treasurer's	5
Water	11
Total examinations	493

NOTE—In addition to the above there were 38 re-examinations during 1933.

POPULATION, BIRTHS, AND DEATHS

POPULATION

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

The extension of the Borough boundaries took effect as from 1st April, 1933. The Registrar-General's estimate of the population of the extended Borough as at mid-year, 1933, was 151,060.

For the purpose of the calculation of annual birth and death-rates, however, the Registrar-General suggests that an adjusted figure, namely, 149,920, should be used; in view of the fact that the added districts did not come within the area of the Borough until the end of the first quarter of the year. The rates in question have accordingly been calculated on this figure, and will be found below.

BIRTHS

Births registered during 1933, and birth-rate.—During the year 2,567 births belonging to the Borough were *registered*. (This total includes 77 Birkenhead births registered in other areas and transferred to Birkenhead, and excludes 178 births belonging to other areas which occurred in Birkenhead and were transferred to the areas concerned. Among the latter are numerous births which occurred at the Birkenhead Maternity Hospital and the Birkenhead Infirmary.)

This corresponds to a birth-rate of 17.1 per 1,000 of the population—the lowest annual birth-rate which has been recorded for the Borough.

Birth-rate in recent years.—The birth-rates since 1924 are as follows:—

1924	21.1	per 1,000
1925	20.5	„
1926	20.4	„
1927	18.2	„
1928	18.5	„
1929	18.9	„
1930	17.8	„
1931	18.4	„
1932	17.7	„
1933	17.1	„

Comparison of birth-rate with rates for country generally—

	Per 1,000 of population.	
	Live births	Still births
England and Wales	14.4	0.62
118 County Boroughs and Great Towns (including London)	14.4	0.67
132 smaller towns (estimated resident populations 25,000-50,000 at census, 1931)	14.5	0.63
London	13.2	0.45
Birkenhead	16.4	0.76

Sex-distribution of births.—Of the 2,453 live births, 1,302 were males and 1,151 females; a proportion of 1,131 : 1,000.

Legitimacy.—Of the 2,453 live births registered, 96 were illegitimate, a percentage of 3.9.

Registration of stillbirths.—Under Section 7 of the Births and Deaths Registration Act, 1926, the birth of every stillborn child* must be registered by the Registrar in a register of stillbirths. The Registrar-General has kindly furnished me with the numbers of stillbirths registered during 1933 in Birkenhead. The total number was 120. In addition, there were 4 inward transfers. There were 10 stillbirths registered in Birkenhead belonging to other areas. Thus the nett number of stillbirths belonging to the Borough was 114, classified as follows:—

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

Legitimate—Males	64
Females	48
Illegitimate—Males	0
Females	2
	114

The stillbirth rate was 44 per 1,000 births.

Births notified during 1933.—During the year, 2,561 births were notified in the Borough under the Notification of Births Acts, 1907 and 1915. Of these 99 were stillbirths, leaving a total of 2,462 live births. This total includes births which occurred in the Birkenhead Maternity Hospital, the Birkenhead Infirmary, and the Birkenhead General Hospital, many of which were transferable to other areas.

The following is an analysis of the above births:—

Births in Public Institutions:—

Birkenhead Maternity Hospital	411	(23 stillbirths)
Birkenhead Infirmary	336	(76 „)

Other births (including those in nursing homes):—

Notified by doctors	93	(4 stillbirths)
Notified by midwives	1716	(46 „)
Notified by parents	5	(— „)
	2561	(99 stillbirths)

Un-notified births.—The Registrars reported 89 cases of un-notified births; 18 of these were attended by medical practitioners, 49 by both certified midwives and doctors, 14 by the Maternity Hospital staff, 2 by the Infirmary staff, and 6 by the General Hospital staff.

DEATHS

Death-rate.—2,036 deaths occurred during the year; the total figure includes 111 deaths of Birkenhead residents which occurred outside the Borough, but excludes 221 deaths of non-residents which occurred in the area. This gives a death-rate of 13.5 per 1,000.

Deaths in recent years.—The death-rates since 1924 are as follows:—

1924	11.9 per 1,000
1925	12.1 „
1926	11.1 „
1927	12.6 „
1928	12.3 „
1929	13.9 „
1930	11.7 „
1931	13.4 „
1932	11.6 „
1933	13.5 „

Seasonal deaths.—The following gives the deaths for each quarter of the years 1932 and 1933:—

	No. of deaths	
	1932	1933
First quarter.....	525	731
Second quarter.....	401	424
Third quarter.....	358	372
Fourth quarter.....	424	509
Totals	1711	2036

Sex-distribution of deaths.—Of the total deaths 1,040 were males and 996 females, a proportion of 1,044 : 1,000.

Uncertified deaths.—In 1933 there was 1 uncertified death belonging to the area.

Coroner's inquests.—Coroner's inquests were held regarding 107 deaths—that is, in 5.2 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 58 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 1933, 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 243 deaths of infants under 1 year old. This corresponds to an infantile mortality rate of 99 per 1,000 births.

There were 15 deaths in illegitimate infants under 1 year old; giving an illegitimate mortality rate of 156 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 1924 are given below:

1924	91
1925	92
1926	85
1927	95

1928	80
1929	86
1930	86
1931	86
1932	71
1933	99

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

	No. in 1932	No. in 1933
(a) Pneumonia (all forms)	28	39
Bronchitis	3	15
Whooping cough	5	5
Measles	1	10
(b) Diarrhœa and enteritis	31	35
Premature birth	50	54
(c) All other causes	67	85
	185	243

The chief causes of the increased rate for 1933 as compared with 1932 were, therefore, pneumonia 11, bronchitis 12, measles 9, diarrhœa and enteritis 5, debility 5, premature birth 4.

Deaths from tuberculosis.—Tuberculosis was responsible for 7.9 per cent. of all the deaths recorded in the Borough in 1933. The deaths from the disease were as follows:—

Deaths from tuberculosis of the lungs	140
Deaths from other forms of tuberculosis	22
	162

This gives a tuberculosis death-rate of 1.08 per 1,000 of the population.

Of the 140 deaths from respiratory tuberculosis during 1933, 121 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 112 deaths, as follows:—

Diarrhœa and enteritis (under 2 years)	42
Whooping cough	12
Measles	40
Scarlet Fever	1
Diphtheria (including membranous croup)	16
Fever (enteric, typhus, and simple continued) ...	1
Smallpox	0

This corresponds to a death-rate from all these diseases of 0.7 per 1,000 of the population.

Deaths from other notifiable infectious diseases.—Pneumonia caused, in its various forms, 186 deaths; erysipelas caused 7; acute poliomyelitis caused 1; cerebro-spinal fever caused 4.

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

Year	BIRKENHEAD			ENGLAND AND WALES	
	Population	Number of deaths from cancer in Birkenhead	Rate per 100,000 population	Rate per 100,000 population	
1901	111,377	91	81	}	87
1902	113,231	66	58		
1903	115,117	78	68		
1904	117,034	83	70		
1905	118,982	94	79		
1906	120,964	101	83	}	94
1907	122,978	90	73		
1908	125,026	101	80		
1909	127,108	91	71		
1910	129,227	115	89		
1911	131,377	114	86	}	105
1912	135,521	126	92		
1913	135,740	107	70		
1914	137,906	114	82		
1915	140,291	121	85		
1916	142,622	140	98	}	118
1917	144,993	144	99		
1918	147,403	154	104		
1919	149,853	181	121		
1920	152,345	186	122		
1921	147,800	186	125		121
1922	149,200	172	115		123
1923	151,400	179	118		127
1924	154,100	179	116		130
1925	155,500	199	129		133
1926	158,000	204	129		136
1927	158,500	206	130		137
1928	159,200	229	145		142
1929	157,600	214	136		143
1930	157,600	228	144		145
1931	148,500	206	138		148
1932	147,700	197	133		151
1933	151,060	208	138		153

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	1040 995	155 90	42 35	32 35	35 32	36 36	33 47	76 66	113 86	174 130	192 202	152 236
1 Typhoid and paratyphoid fevers	Male Female	...	...	...	...	...	...	1	...	...	...	...	...
2 Measles	Male Female	25 19	7 4	14 8	3 5	1 2	...	...	...	...	...	...	...
3 Scarlet fever	Male Female	...	...	...	...	...	...	...	...	...	...	...	...
4 Whooping cough	Male Female	1 8	...	...	1 3	...	...	...	...	...	...	...	...
5 Diphtheria	Male Female	5 10	...	...	5 4	...	...	...	...	...	...	...	...
6 Influenza	Male Female	43 47	3 ...	1 ...	2 1	2 ...	1 ...	3 9	7 3	7 5	8 7	6 7	3 14
7 Encephalitis lethargica	Male Female	4 1	...	...	...	...	...	1	1	1	1	1	...
8 Cerebro-spinal fever	Male Female	2 2	1 2	...	...	...	...	...	1	...	...	...	...
9 Tuberculosis of respiratory system	Male Female	83 53	...	...	...	6 2	12 16	9 13	20 17	23 ...	9 1	4 3	...
10 Other tuberculous diseases	Male Female	12 12	...	...	3 3	3 4	2 1	...	2	1	...	...	1
11 Syphilis	Male Female	4 ...	...	...	...	...	...	...	2	1	1	...	...
12 General paralysis of the insane, tabes dorsalis	Male Female	7 1	...	...	...	...	...	...	3	1	3	...	...
13 Cancer, malignant disease	Male Female	116 103	...	...	1 1	...	...	...	6 9	17 20	39 31	35 31	18 11
14 Diabetes	Male Female	6 13	...	...	...	...	...	...	...	...	3	1	2
15 Cerebral hemorrhage, etc.	Male Female	36 46	...	...	...	...	...	...	1	4	4	7	1
16 Heart disease	Male Female	191 218	...	...	...	6 4	5 5	5	9	19	43	57	15
17 Aneurysm	Male Female	1 1	...	...	1 ...	4 ...	...	4	8	17	30	65	83

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.....	55	9	13	9	86	51	45	29	32	243
Smallpox ..	..	..	..	..	..	..	..	..	..	..
Chickenpox ..	..	..	..	..	..	..	..	..	..	..
Measles ..	..	..	..	..	..	..	..	4	6	10
Scarlet fever.....	..	..	..	..	..	..	..	..	..	..
Whooping cough.....	..	..	..	..	..	2	1	2	..	5
Diphtheria ..	..	..	..	..	..	..	..	..	..	..
Influenza ..	..	..	..	..	..	1	1	..	1	3
Tuberculosis of central nervous system ..	..	..	..	..	..	..	..	..	..	..
Tuberculosis of intestines and peritoneum ..	..	..	..	..	..	..	..	..	..	..
Meningitis (not tuberculous) ..	..	..	..	..	..	..	2	..	1	3
Convulsions ..	1	1	..	1	3	1	..	..	1	5
Bronchitis (all forms).....	..	..	..	2	2	7	1	3	2	15
Pneumonia (all forms) ..	1	..	..	1	2	6	11	5	15	39
Diarrhoea and enteritis ..	..	..	..	1	1	8	16	7	3	35
Gastritis ..	..	..	..	..	..	..	..	..	..	..
Syphilis ..	..	..	..	..	..	..	..	..	..	..
Rickets ..	..	..	..	..	..	..	1	1	..	2
Injury at birth ..	1	..	..	..	1	..	..	..	..	1
Atelectasis ..	5	1	..	1	7	..	..	..	..	7
Congenital malformations... ..	6	..	3	1	10	4	1	1	..	16
Premature birth ..	35	4	4	1	44	7	3	..	..	54
Atrophy, debility and marasmus ..	3	..	3	1	7	9	3	1	..	20
Other causes.....	3	3	3	..	9	6	5	5	3	28
Totals.. ..	55	9	13	9	86	51	45	29	32	243

Nett live births in the year—

Legitimate 2357

Illegitimate 96

Nett deaths in the year—

Legitimate infants 228

Illegitimate infants ... 15

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

	Annual death rate per 1000 civilian population								Rate per 1000 births		Percentage of total deaths					
	All causes	Typhoid and Paratyphoid fevers	Smallpox	Measles	Scarlet fever	Whooping cough	Diphtheria	Influenza	Violence	Diarrhoea and enteritis (under 2 years)	Total deaths under 1 year	Certified by Registered Medical Practitioners	Inquest cases	Certified by Coroner after P.M.	No inquest	Uncertified causes of death
England and Wales	12.3	0.01	0.00	0.05	0.02	0.05	0.06	0.57	0.54	7.1	64	90.9	6.3	1.9	0.9	0.9
118 County Boroughs and Great Towns including London (census population exceeding 50,000)	12.2	0.00	0.00	0.06	0.02	0.06	0.08	0.55	0.49	9.4	67	91.0	6.0	2.5	0.5	0.5
132 Smaller Towns (estimated resident populations 25,000 to 50,000 at Census 1931)	11.0	0.00	0.00	0.04	0.02	0.04	0.04	0.53	0.44	4.9	56	91.7	5.8	1.5	1.0	1.0
London	12.2	0.00	0.00	0.02	0.02	0.08	0.08	0.51	0.58	11.6	59	88.3	6.3	5.4	0.0	0.0
Birkenhead.....	13.5	0.00	0.00	0.26	0.00	0.07	0.10	0.59	0.54	17.1	99	91.9	5.3	2.8	0.0	0.0

WATER SUPPLY, FOOD, AND DRUGS

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

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

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

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

THE WATER SUPPLY

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

The consumption of water in Birkenhead from the Alwen supply during the year ending 31st December, 1933, was 1,486,000,000 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.

23 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.*—During the year 337 samples of milk supplied from outside farms were taken in the Borough by the Veterinary Officer. Of these 46 (13.6 per cent.) were found to contain tubercle bacilli. In connection with these infected samples, fifty visits were paid by the Veterinary Officer, under the provisions of the Milk and Dairies (Consolidation) Act, 1915, to milk producers' farms outside the Borough in connection with milk samples which proved, upon examination at the Municipal Laboratory, to be tuberculous. These visits were made in company with the County Veterinary Inspectors of the districts concerned, and 2,076 cows were examined. Samples from all cows suspected to be affected with tuber-

culosis were taken for examination by the County Authorities. On the farms inspected 33 cows were found to be giving tuberculous milk and 5 other cows were found to be suffering from tuberculosis. The 38 cows were slaughtered.

(b) *Farms, etc., within the Borough.*—There were at the beginning of the year 15 dairy farms within the boundaries of the Borough with a population of 260 cows. With the extension of the Borough boundaries on April 1st, the number of farms increased to 29, with a population of 400 dairy cows.

During the year, under the provisions of Part IV. of the Milk and Dairies Order, 1926 (an Order made by the Minister of Health), quarterly examinations were made by the Veterinary Officer of all dairy cows within the Borough. 97 visits were paid to the 29 farms in the Borough, and 1,552 inspections of cows were made. 18 samples of milk from cases showing induration of the udder were taken and examined microscopically for the presence of tubercle bacilli. In 8 cases the result was positive and the affected cows were immediately slaughtered. The remaining 10 samples, which were negative on microscopical examination, were subjected to biological tests in the Municipal Laboratory. The results proved negative in all cases. 20 cows were found to be suffering from affections detrimental to the milk supply, and the use of their milk for human consumption was prohibited.

Milkshops and the retail sale of milk.—There are 161 registered milkshops in Birkenhead. In addition, the following are registered for retailing milk within the Borough—88 farmers resident outside Birkenhead, 8 “purveyors” of milk, and the owners of the 29 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 29 persons desiring to retail milk within the Borough. 24 of these have been placed on the register. In the remaining 5 cases the applicants were persuaded to abandon their applications, the premises being unsuitable.

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

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

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

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

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

12 licences to sell *Grade A milk*.

1 licence to sell *Pasteurised milk*.

1 licence to produce *Grade A milk*.

In connection with the licence granted to the producer of *Grade A milk* within the Borough, the Veterinary Officer visited the premises quarterly during the year, 225 dairy cows being examined. Of these, 10 were found to be affected with conditions requiring their exclusion from the herd, and were removed immediately.

The chemical and physical examination of milk.—During the year 274 samples of milk were taken for chemical analysis.

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

Suitable action was taken with regard to the unsatisfactory samples.

OTHER FOODS : DRUGS

Abattoirs in Birkenhead.—There are two public abattoirs in the borough:—

- (a) the abattoir within the Woodside Lairages; and
- (b) the Corporation abattoir at Tranmere.

Meat inspection at Lairages and Abattoir.—The Veterinary Officer reports that during the year there were killed within the Borough 55,385 oxen, 1,205 calves, 5,549 pigs, 38,875 sheep; a total of 101,014; as set out in Table F 1.

This represents an increase of 32,562 animals over the number slaughtered in 1932 (68,452)—an increase of nearly 50 per cent. This was mainly due to the fact that a considerable proportion of the sheep-killing formerly carried out at Wallasey Lairage was transferred to Woodside Lairage.

TABLE F 1
Animals killed in Birkenhead during 1933

	Oxen	Calves	Sheep	Pigs	Total
At Woodside Lairages—					
Irish	36691	—	14546	384	51621
Canadian	18219	—	—	—	18219
Manx	47	—	11	—	58
At Wallasey Stage and Nos. 4 and 5 Sheds—					
Irish	98	—	405	86	589
Canadian	20	—	—	—	20
Manx	—	—	10	1	11
At Tranmere Abattoir—					
Irish	—	—	1320	—	1320
Home-fed	310	1205	22583	5078	29176
Totals	55385	1205	38875	5549	101014

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

The following is a summary of the meat, etc., condemned by the meat inspection staff at the lairages and abattoir during the year and surrendered by the owners for destruction. In no case was a formal seizure necessary:—

The total number of carcasses seized was 300, weighing 119,242 lbs.

144 of these were seized on account of tuberculosis; their aggregate weight being 77,102 lbs. The remainder was seized on account of transit injuries, dropsy, sepsis, etc.

The number of parts of carcasses seized was 1,057, weighing 44,624 lbs.

Of these 832 were seized on account of tuberculosis; their aggregate weight being 38,808 lbs.

The total weight of offal seized was 364,365 lbs.

Inspection of meat and other foods at shops.—During the year 3,772 visits have been paid by the Inspectors to premises within the Borough. The total amount of foodstuffs condemned at the shops was 1,463 lbs. The attention paid to shops, etc., where food is stored or exposed for sale is necessarily limited owing to the amount of time which is taken up in meat inspection at the abattoir and lairages.

Examination of imported sheep for caseous lymphadenitis.—During the year 617 imported sheep carcasses have been received into the Borough on licence from the Port of London Sanitary Authority. A proportion (5%) of these were examined and were found to be free from caseous lymphadenitis.

Exportation of animal casings.—A certificate was granted for 1 cask of beef casings (2 cwts.) for export to New York, U.S.A.

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

Prosecutions.—There were no prosecutions during the year.

Samples taken under Food and Drugs Acts.—During the year 550 samples were taken. Of these 278 were formal and 272 informal. 274 were samples of milk.

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

TABLE F 2
Samples taken during 1933

Article	No. samples taken formally	No. samples taken informally	Article	No. samples taken formally	No. samples taken informally
Milk	269	3	White pepper	...	6
Skimmed milk	2	...	Mint sauce	...	1
Dried milk	...	1	Non-alcoholic cider	...	1
Cream and tinned cream	...	3	" " wine	...	2
Butter	...	18	Salmon creme	...	1
Cheese	...	7	Semolina	...	1
Wrapped cheese	...	7	Table jelly	...	3
Margarine	...	14	Cream of tartar	...	2
Lard	...	9	Iodised sarsaparilla	...	1
Dripping	...	4	Sarsaparilla root	...	1
Flour	...	1	Sulphur sarsaparilla	...	1
Self raising flour	...	4	and treacle	...	1
Tea	...	3	Liquid cascara	...	3
Coffee and mixture	...	7	Mustard and mixture	...	2
Cocoa	...	2	Brawn	...	1
Confectionery	...	4	Cake	...	1
Jam	...	13	Custard powder	...	2
Marmalade	...	2	Glacé cherries	...	3
Barley	...	2	Ham roll	...	1
Black pudding	...	1	Beef and ham roll	...	1
Condensed milk	...	12	Ox tongue pate	...	1
Meat paste	...	5	Pickles	...	1
Fish paste	...	3	Sage	...	1
Dessicated cocoanut	...	1	Sago	...	1
Egg substitute powder	...	1	Tinned tomatoes	...	1
Ground cinnamon	1	7	Vinegar	...	3
Cinnamon quills	...	1	Aspirin tablets	...	2
Honey and mixture	...	6	Camphorated oil	...	2
Lemon cheese	...	2	Castor oil	...	1
Olive oil	...	3	Liquorice powder	...	2
Rice	...	7	Sugar	...	1
Sausage	...	22	Candied peel	...	2
Tinned fish	6	6	Concentrated lime juice	...	1
Meat pie	...	2	Ground almonds	...	1
Cod liver oil emulsion	...	...	Mincemeat	...	1
with hypophosphites of	...	...	Mixed spice	...	1
lime and soda	...	1	Potted meat	...	2
Glycerine	...	5	Rissoles	...	1
Iodine	...	2	Preserved ginger in	...	...
Tincture of iodine	...	5	syrup	...	1
Iodised throat tablets	...	2	Pudding	...	2
Sulphur tablets	...	1	Raisins	...	1
Zinc ointment	...	1	Sultanas	...	1
Vaseline	...	1	Dried fruit	...	5
Boracic ointment	...	2			

Samples analysed formally 278

Samples analysed informally 272

Total samples analysed during the year... 550

Of the total number of samples analysed

- 18 samples of milk
- 2 samples of condensed milk
- 4 samples of sausages
- 9 samples of tinned fish
- 7 samples of ground cinnamon
- 2 samples of jam
- 1 sample of rice
- 1 sample of sago
- 1 sample of vinegar
- 2 samples of tincture of iodine

were reported adulterated, and proceedings were taken in respect of:—
8 samples of milk and 1 sample of ground cinnamon.

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
Mar. 2	Milk	63	3% of added water and 2 parts of dirt mainly dung per 100,000	£2 and 10/6 costs
Mar. 13	Milk	93	6% deficient in fat	£2 and 10/6 costs
April 30	Milk	160	13% deficient in fat	Dismissed
May 24	Milk	212	30% added water	Dismissed on payment of 10/6 costs.
May 26	Milk	217	28% added water	£5 & £2/2/0 costs.
June 18	Milk	247	21% deficient in fat	£2 & £1/1/0 costs..
June 22	Milk	268	11% deficient in fat	Dismissed
May 24	Ground cinnamon..	216	Contained 3.8% sand and silicious matter.	£1 & £1/11/6 costs.
Dec. 27	Milk	546	6% deficient in fat	£1 and 10/6 costs..

TUBERCULOSIS

ADMINISTRATIVE ARRANGEMENTS

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

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

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

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

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

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

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

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

(h) The provision of beds at the Birkenhead Infirmary 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 1933 was 310—207 respiratory and 103 non-respiratory. An analysis of these cases with reference to age and sex will be found in Table T 1 (page 23)

Mortality.—The total number of deaths, certified as due to tuberculosis, of patients who had previously been notified as suffering from the disease was 149—130 respiratory and 19 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 13—10 respiratory and 3 non-respiratory.

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

Respiratory	140
Non-respiratory	22
	162

An analysis of the tuberculosis mortality for the past ten years will be found in Table T 2 (page 23)

An analysis of the tuberculosis mortality during 1933 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 1933 was as follows:—

	Insured	Not Insured	Total
Respiratory Male	318	95	413
Female	132	240	372
Non-respiratory Male	51	192	243
Female	52	222	274
Total... Male	369	287	656
Female	184	462	646
Total	553	749	1302

CASES DEALT WITH THROUGH THE TUBERCULOSIS CLINIC

Attendances of patients at the clinic.—During the year 2,181 examinations were made. Of these 805 were *first* examinations (*i.e.*, examinations of patients who had not been seen previously at the clinic).* In addition to attendances made for the purpose of medical examination, 1,179 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 1933.—Of the 310 new patients notified in 1933, 151 were examined at the clinic during the year. The remaining 159 were not referred to, did not attend at, or had been previously examined at, the clinic.

Classification of new cases.—The 536 new patients who attended during the year were classified as follows:—

	*Adults	Children	Total
Classed as suffering from respiratory tuberculosis { Male ...	67	5	72
Female ...	50	4	54
Classed as suffering from other forms of tuber- { Male ...	9	26	35
culosis Female ...	9	19	28
Classed as non-tuberculous { Male ...	85	91	176
Female ...	89	72	161
Classed as "suspect" { Male ...	3	2	5
Female ...	3	2	5
Total... { Male	164	124	288
Female	151	97	248
Total	315	221	536

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

Examination of contacts.—269 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 ...	1	—	1
	Female	5	—	5
Classed as suffering from other forms of tuberculosis	Male ...	—	5	5
	Female	—	3	3
Classed as non-tuberculous.....	Male ...	26	90	116
	Female	55	74	129
Classed as "suspect"	Male ..	1	4	5
	Female	1	4	5
Total...	Male ...	28	99	127
	Female	61	81	142
Total.....		89	180	269

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

HOME VISITING; DISINFECTION; COMPULSORY TREATMENT; ETC

During the year the health nurses paid 301 first visits and 3,332 re-visits to the homes of patients.

The number of houses disinfected after death or removal of patients was 132.

Spitting flasks are provided free of charge to patients.

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

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

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

THINGWALL SANATORIUM

Patients dealt with.—At the commencement of the year there were 38 patients in the Sanatorium. There were 63 admissions during the year. These were classified as follows:—

Tuberculosis of bones and joints	1
" abdominal glands or peritoneum	18
" cervical and other glands	19
" lungs (non-infectious case)	1
" other organs	1
For observation and diagnosis	23

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

Disease quiescent	24
Improved	12
No material improvement.....	5
Found after observation not to be suffering from tuberculosis	23

There were 37 patients under treatment at the end of the year.

Average duration of stay. For the patients discharged during the year the average length of stay in the sanatorium was 30 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.

General observations.—The fine summery weather during the year assisted considerably in the treatment of the children at the sanatorium and proved that the “*vis medicatrix naturæ*”, aided by good food and a well-regulated regime, are the main factors in curing the milder forms of non-pulmonary tuberculosis.

CHESHIRE 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 31 Birkenhead patients were under treatment. During the year 46 Birkenhead patients were admitted, 49 were discharged, and 1 died; 27 patients remained under treatment at the end of the year.

	Men	Women	Children (under 15)	Total
In Sanatorium January 1, 1933	17	14	—	31
Admitted during year	25	17	4	46
Discharged or left Sanatorium during year	27	22	—	49
Died in Sanatorium	1	—	—	1
In Sanatorium December 31, 1933 ...	14	9	4	27

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
Group											
T. B. minus	Quiescent	—	—	—	—	—	—	—	—	—	—
	Improved	—	1	2	3	3	3	1	—	6	7
	No material improvement	—	—	—	1	—	—	—	—	—	1
	Died	—	—	—	—	—	—	—	—	—	—
T. B. plus Group I.	Quiescent	—	—	—	—	—	—	—	—	—	—
	Improved	—	—	—	—	2	—	—	1	2	1
	No material improvement	—	—	—	—	—	—	—	—	—	—
	Died	—	—	—	—	—	—	—	—	—	—
T. B. plus Group II.	Quiescent	—	—	—	—	—	—	—	—	—	—
	Improved	3	—	2	2	7	7	2	1	14	10
	No material improvement	3	—	—	1	1	—	1	—	5	1
	Died	—	—	1	—	—	—	—	—	1	—
T. B. plus Group III.	Quiescent	—	—	—	—	—	—	—	—	—	—
	Improved	—	—	—	—	—	—	—	—	—	—
	No material improvement	—	—	—	—	—	1	—	—	—	1
	Died	—	—	—	—	—	—	—	—	—	—

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

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

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

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

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

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

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

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

LEASOWE HOSPITAL

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

There were 12 cases in hospital at the beginning of the year; 7 new cases have been admitted during the year, and 9 have been discharged or died; leaving 10 patients in hospital at the end of December.

The localisation of the disease in the 19 patients under treatment during the year was as follows:—

Tuberculosis of spine	6
„ hip	9
„ knee	1
„ ankle	1
„ intestines	1
„ hand	1
	—
	19
	—

The 9 cases discharged or died were as follows:—

Tuberculosis of hip	1	died
„ hip	2	improved
„ spine	3	quiescent
„ spine	1	improved
„ ankle	1	improved
„ intestines	1	died
	—	
	9	
	—	

BIRKENHEAD INFIRMARY

With the appropriation of this hospital by the Health Committee as a hospital to be administered under the Public Health Acts, the treatment side of tuberculosis has received greater attention. Dr. Foster, Clinical Tuberculosis Officer, acts as Consultant Physician, and visits the hospital, sees the tuberculous patients, and advises treatment, etc. Formerly, tuberculous patients were treated on broad general lines, but efforts are now being made to supplement this by modern forms of treatment, such as are in vogue in sanatoria. Patients who are not entirely suitable for sanatorium treatment, but in whom the disease is not too advanced, and those who have long-standing disease, which shows signs of a recurrence or spread, but who have good resistance to the disease, are now receiving courses of Sanoecrysin, sometimes in conjunction with the induction of an artificial pneumothorax on the worse side of the chest.

Again, some patients, especially housewives with young families, are loath to go a long distance away from their homes and refuse sanatorium treatment on the grounds that they would fret if parted for a long period from their children. Whilst it is not to be expected that anti-tuberculosis treatment in a general town hospital such as the Birkenhead Infirmary can be as valuable as treatment in a modern up-to-date sanatorium situated in country surroundings, yet striking results have been obtained in the cases of one or two patients of the types mentioned above. Two examples are herewith appended:—

- (1) Mrs. A. B., aged 21 years, married, one child, 1-10/12 years. Examined at home 3/5/33. Definite tuberculosis of upper half left lung, confirmed by X-Ray. Right apex doubtful; cough, sputum, night sweats, loss of weight, sputum positive for T.B.
Admitted Infirmary 5/5/33. Left lung collapsed and Sanoecrysin given. Left Infirmary 5/7/33. No cough or sputum, gained 16 lbs. in weight.

After-history: Attends Infirmary every fortnight for refills. Feels well, has kept up her weight, does light housework; disease checked.

- (2) Mrs. C. D., aged 30 years, married, notified 9/9/29. Well-marked tuberculosis right lung. Kept fairly well until May, 1933, and had been working as waitress when she began to go down-hill. Lost 18 lbs. in weight in a year; sputum positive for tuberculosis; signs of spread to left lung. 6/6/33 admitted to Infirmary. Artificial pneumothorax induced in right lung; one course of Sanocrysin given. Discharged from Infirmary 26/7/33.

After-history: Attends Infirmary fortnightly for refills. Holding her own, despite small quantity of fluid in chest; has maintained gain in weight. Feels well.

Sanocrysin.—Sanocrysin is a gold salt and has been found to be beneficial in the treatment of certain types of phthisis. It is injected intravenously and tends to dry up exudative processes in the lungs and to promote healing in the form of fibrosis. The Clinical Tuberculosis Officer was authorised during 1923 to treat selected cases of phthisis by this method, and it has been used in over a dozen cases.

The treatment has two drawbacks. Firstly, it is expensive; a course costs nearly £5. Secondly, it entails hospitalisation during treatment, as it may give rise to complications such as nephritis, stomatitis and skin rashes, all of which have to be carefully looked for and guarded against.

There is no doubt, however, that treatment by gold salts of certain types of tuberculous disease has now become recognised as being of great value.

Lipiodol.—Lipiodol is a preparation of iodine in oil which is opaque to X-Rays and, when injected into the trachea, trickles into the bronchial tubes and shows up clearly in X-Ray photographs. By this means, differentiation between tubercular and non-tubercular conditions, such as bronchiectasis and tumours, can be made.

Lipiodol is now being used in conjunction with X-Rays in cases where the diagnosis is doubtful. It has been the means of enabling a definite diagnosis to be made one way or another in cases where formerly tuberculosis would probably have been diagnosed on not too definite grounds.

Mantoux Test.—This test consists of the injection of a dilute tuberculin solution intradermally, i.e., into the skin layer, and has nowadays displaced the Von Pirquet Test, which consisted of scratching the skin and rubbing the tuberculin solution into the scratched area. In cases where a negative reaction is found, a diagnosis of a non-tuberculous condition can usually be made with certainty. A positive reaction indicates that the patient is or has been at some time tuberculised, and is only of value when taken into consideration with the clinical findings.

Artificial pneumothorax treatment.—During 1933, 556 refills were given by Dr. Foster, including 10 primary inductions. These figures represent an increase of over 100 per cent. over those for 1932. There were approximately 1,300 screenings performed in 1933, against 305 in 1932.

X-Ray examinations.—During the year 167 patients were sent from the Tuberculosis Clinic for X-Ray examination at the Birkenhead Infirmary. This, an increase of 116 over the number X-Rayed in 1932,

has been made possible by the appropriation of the Infirmary by the Health Committee. The value of these X-Ray examinations to the Clinical Tuberculosis Officer is inestimable. A patient can now be X-Rayed both before and after a certain course of treatment, e.g., the administration of Sanocrysin, and the effect noted with a view to further treatment. Again, it is now no longer necessary to have to refuse a doctor's request for an X-Ray examination of one of his patients, as was the case prior to appropriation.

TABLE T 1

New cases notified for first time during the year

PRIMARY NOTIFICATIONS											
Age periods.....	0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 and up
Respiratory—Male	—	4	2	7	3	10	27	26	26	8	8
Female	1	2	5	3	7	19	28	9	5	7	—
Non-respiratory—Male	—	15	18	10	4	2	6	1	—	—	1
Female	1	9	9	11	5	4	5	2	—	—	—
Total	2	30	34	31	19	35	66	38	31	15	9
											310

TABLE T 2

Deaths from tuberculosis during the past ten years

	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
Deaths from tuberculosis of the lungs—										
Number	136	123	122	155	150	164	141	144	140	140
Rate per 1000	0.88	0.79	0.77	0.98	0.95	1.04	0.89	0.97	0.95	0.93
A Male—										
Number	75	61	68	97	82	93	83	83	72	86
Rate	0.48	0.39	0.43	0.61	0.52	0.58	0.52	0.55	0.48	0.57
B Female—										
Number	61	62	54	58	68	71	58	61	68	54
Rate	0.40	0.39	0.34	0.37	0.43	0.46	0.36	0.42	0.46	0.36
Deaths from other forms of tuberculosis—										
Number	51	35	39	45	43	39	29	36	29	22
Rate per 1000	0.33	0.22	0.24	0.28	0.27	0.24	0.18	0.24	0.19	0.14
A Male (all ages)										
Number	25	17	18	28	28	18	11	17	15	10
Rate	0.16	0.10	0.11	0.18	0.18	0.11	0.06	0.11	0.10	0.06
B Female (all ages)										
Number	26	18	21	17	15	21	18	19	14	12
Rate	0.17	0.11	0.13	0.10	0.09	0.13	0.11	0.13	0.09	0.08
C Children (un. 5 yrs)										
Number	26	22	24	22	21	19	8	22	6	7
Rate	0.17	0.13	0.15	0.13	0.13	0.12	0.05	0.14	0.04	0.04
Deaths from tuberculosis (all forms)—										
Number	187	158	161	200	193	203	170	180	169	162
Rate per 1000	1.21	1.15	1.02	1.26	1.22	1.29	1.07	1.21	1.14	1.08
Rate per 1000 England & Wales	1.06	1.03	0.96	0.97	0.93	0.96	0.89	0.89	0.83	0.82

TABLE T 3
New cases and mortality during 1933

Ages	*NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0.....	—	1	—	1	—	1	—	—
1.....	4	2	15	10	1	1	3	4
5.....	2	5	18	9	—	—	1	2
10.....	8	3	11	12	6	2	2	2
15.....	3	7	5	5	2	3	1	1
20.....	11	23	2	4	12	13	1	—
25.....	31	31	6	5	9	13	—	2
35.....	30	11	1	2	20	17	1	—
45.....	28	5	—	—	23	—	—	—
55.....	10	7	—	1	8	1	—	1
65 and upwards.....	8	1	1	—	5	3	1	—
Totals.....	135	96	59	49	86	54	10	12

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

VENEREAL DISEASES

ADMINISTRATIVE ARRANGEMENTS

The diagnosis and treatment of cases of venereal diseases at the Municipal Clinic held at the Birkenhead General Hospital has been carried on during the year by Dr. F. G. Foster, assisted by Dr. J. M. Davidson, Dr. Mary Deacon and Dr. May Williams.

Of the 467 new cases dealt with at the clinic, 267 were residents of Birkenhead, 41 were from Cheshire County, 16 from Wallasey, 6 from Liverpool, and 106 from India, Burma and Ceylon.

At the special clinic for children held at No. 9, Hamilton Square, Dr. Deacon has been in attendance during the year. At this clinic the number of new cases seen during the year was 62 as compared with 44 in the previous year; the attendances numbered 1,092 as compared with 941, an increase of 151.

GENERAL NOTES

Cases dealt with.—(a) General Hospital clinic. During the year 913 persons, comprising 599 males and 314 females, were dealt with at the clinic as out-patients.

The total attendances of out-patients was 11,863; the number of in-patient days was 153.

New patients numbered 345 males and 122 females; of these 200 were non-residents of Birkenhead. As is usual in sea-ports sailors of many nationalities were treated at the clinic. Natives of Latvia, Norway, Sweden, India, Burma and Ceylon attended during the year.

(b) Hamilton Square clinic.—During the year 171 children (83 males and 88 females) were dealt with at the clinic as out-patients, the total attendances made being 1,092.

The new cases seen numbered 62, and were diagnosed as follows:—

Syphilis (congenital in all cases)	42
No venereal disease	20

Bacteriological work.—(a) 511 smears were examined at the municipal laboratory for the presence of gonococci, 19 specimens for the detection of spirochetes were examined at the municipal clinic at the General Hospital, and 11 specimens of cerebro-spinal fluid were examined at the municipal laboratory by the colloidal gold test.

(b) At the University of Liverpool, Professor Beattie examined 1,428 specimens for the Wassermann reaction, 427 of these being sent from the municipal clinic at the Birkenhead General Hospital, 42 from the Hamilton Square clinic, and 949 from private medical practitioners and hospitals in the area.

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

to the Medical Officers of the treatment centres at the General Hospital and at No. 9, Hamilton Square,
to the Medical Superintendent, Birkenhead Infirmary,
to six approved 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		Gonorrhoea		Conditions other than venereal		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T's.
1. Number of cases on 1st January undertreatment or observation	121	127	4	—	91	42	16	5	232	174	406
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	17	15	—	—	5	3	—	—	22	18	40
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	12	—	—	—	—	—	—	—	12	—	12
" secondary	2	—	—	—	—	—	—	—	2	—	2
" latent in 1st year of infection	6	—	—	—	—	—	—	—	6	—	6
" all later stages	43	34	—	—	—	—	—	—	43	34	77
" congenital	4	3	—	—	—	—	—	—	4	3	7
Soft chancre	—	—	11	—	—	—	—	—	11	—	11
Gonorrhoea, 1st year of infection	—	—	—	—	103	39	—	—	103	39	142
" later	—	—	—	—	11	4	—	—	11	4	15
Conditions other than venereal	—	—	—	—	—	—	114	40	114	40	154
4. Number of cases dealt with for the first time during the year under report known to have received treatment at other centres for the same infection	15	1	2	—	22	1	—	—	39	2	41
Totals of Items 1, 2, 3 and 4	220	180	17	—	232	89	130	45	599	314	913
5. Number of cases discharged after completion of treatment and final tests of cure	6	15	2	—	29	13	126	36	163	64	227
6. Number of cases which ceased to attend before completion of treatment and were, on first attendance, suffering from:—											
Syphilis, primary	6	3	—	—	—	—	—	—	6	3	9
" secondary	2	3	—	—	—	—	—	—	2	3	5
" latent in 1st year of infection	3	—	—	—	—	—	—	—	3	—	3
" all later stages	24	44	—	—	—	—	—	—	24	44	68
" congenital	1	3	—	—	—	—	—	—	1	3	4
Soft chancre	—	—	1	—	—	—	—	—	1	—	1
Gonorrhoea, 1st year of infection	—	—	—	—	30	17	—	—	30	17	47
" later	—	—	—	—	5	4	—	—	5	4	9
7. Number of cases which ceased to attend after completion of treatment but before final tests of cure	5	—	—	—	19	—	—	—	24	—	24
8. Number of cases transferred to other centres or to institutions, or to care of private practitioners	47	1	8	—	53	2	—	—	108	3	111
9. Number of cases remaining under treatment or observation on 31st December	126	111	6	—	96	53	4	9	232	173	405
Total of Items 5, 6, 7, 8 and 9 (These totals should agree with those of Items 1, 2, 3 and 4)	220	180	17	—	232	89	130	45	599	314	913

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	2	1	—	—	—	—	—	—	2	1	3
„ secondary	—	—	—	—	—	—	—	—	—	—	—
„ latent in 1st year of infection.....	1	—	—	—	—	—	—	—	1	—	1
„ all later stages ...	4	26	—	—	—	—	—	—	4	26	30
„ congenital	1	3	—	—	—	—	—	—	1	3	4
11. Number of attendances—											
(a) For individual attention of the medical officers.....	1319	1495	39	—	1445	815	352	147	3155	2457	5612
(b) For intermediate treatment, e.g. irrigation, dressing....	157	75	—	—	5086	556	303	74	5546	705	6251
Total attendances...	1476	1570	39	—	6531	1371	655	221	8701	3162	11863
12. In-patients—											
(a) Total number of persons admitted for treatment during the year	8	2	1	—	5	—	2	—	16	2	18
(b) Aggregate number of "in-patient days" of treatment given.	46	28	13	—	63	—	3	—	125	28	153
13. 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	3	2	4	3	
14. Pathological Work—	Microscopical				Serum Tests						
	for Spirochetes		for Gonococci		Wassermann		Others for Syphilis		for Gonorrhoea		
(a) Number of specimens examined at and by the medical officer of the treatment centre	19		511		—		11		—		
(b) Number of specimens from patients attending at the centre sent for examination to an approved laboratory...	—		—		437		—		—		

TABLE V 2

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

	Birkenhead	Burma	Canada	Cardiff	Ceylon	Cheshire	Chester C. B.	Cornwall	Denbighshire	Durham Co.	Flintshire	Greece	India	Ireland	Kent	Lancashire	Latvia	Liverpool	Manchester	Newport, Mon.	Norway	Salford	Scotland	Sheffield	Southport	Sunderland	Sweden	Walsley	Yorkshire E. R.	Total
A. Number of persons from each area dealt with during the year, at or in connection with the out-patient clinic for the first time, and found to be suffering from—																														
Syphilis	67	2	-	-	2	5	-	1	-	-	1	2	35	-	-	-	1	1	-	-	-	-	-	-	-	-	-	3	-	120
Soft chancre..	1	2	-	-	-	1	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	13
Gonorrhoea	100	2	1	-	1	24	1	-	1	-	-	-	24	3	3	1	2	2	-	1	1	2	3	2	-	-	1	8	-	180
Conditions other than venereal... ..	99	3	-	1	-	11	-	-	1	-	1	-	28	-	-	-	-	3	-	-	-	-	2	-	-	-	-	4	1	154
Total	267	9	1	1	3	41	1	1	1	1	2	2	94	-	3	1	3	6	-	1	1	2	5	2	-	1	1	16	1	467
B. Total number of attendances of all patients residing in each area	9084	30	1	1	35	1386	3	1	3	1	31	2	448	4	53	8	3	79	1	5	3	8	13	13	6	1	6	633	1	11863
C. Aggregate number of in-patient days of all patients residing in each area	41	13	-	-	-	40	-	-	-	-	-	-	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	-	153
D. Number of doses of arsenobenzene compounds given in the out-patient clinic and in-patient department to patients residing in each area	1566	6	-	-	11	76	-	-	1	-	12	-	89	2	-	-	1	30	1	-	-	-	-	-	-	-	-	59	-	1854

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 1933;
showing seasonal incidence

Disease	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet fever	11	15	8	10	21	21	14	19	26	44	61	48	298
Diphtheria and membra- nous croup	19	30	27	13	27	21	18	11	27	59	54	55	361
Erysipelas	5	9	9	7	10	8	4	5	13	11	9	10	100
Typhus fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid fever	—	—	—	—	1	2	2	—	1	—	1	—	7
Continued fever.....	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal meningitis	1	—	—	—	—	—	—	—	2	1	—	—	4
Encephalitis lethargica (acute).....	2	—	1	—	—	—	1	—	—	1	—	—	5
Polio-encephalitis (acute)	—	—	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis (acute)...	—	1	—	—	—	—	—	—	—	—	—	—	1
Puerperal pyrexia	3	5	5	2	1	2	1	2	—	2	2	3	28
Puerperal fever	—	1	2	—	—	—	—	—	—	—	—	3	6
Ophthalmia neonatorum	—	—	—	1	2	—	—	—	1	—	2	—	6
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia	85	47	34	17	12	23	14	8	20	40	60	34	394
Malaria	1	—	—	—	1	—	—	1	—	1	—	1	5
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—
Trench fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	127	108	86	50	75	77	54	46	90	159	189	154	1215

TABLE I 2
Infectious diseases other than tuberculosis notified during 1933;
showing ages

Disease	und. 1 yr.	1-2 yrs.	2-3 yrs.	3-4 yrs.	4-5 yrs.	5-10 yrs.	10-15 yrs.	15-20 yrs.	20-35 yrs.	35-45 yrs.	45-65 yrs.	65 yrs. up	Total
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet fever	2	9	16	16	15	138	57	12	22	9	2	—	298
Diphtheria and membra- nous croup	7	15	16	21	33	141	63	27	31	5	2	—	361
Erysipelas ...	12	4	1	3	1	3	4	5	18	5	33	11	100
Typhus fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid fever	—	—	—	—	—	1	—	3	3	—	—	—	7
Continued fever.....	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal meningitis	2	—	—	1	—	—	—	—	—	1	—	—	4
Encephalitis lethargica (acute).....	1	—	—	—	—	—	—	—	2	—	1	1	5
Polio-encephalitis (acute)	—	—	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis (acute). ...	—	—	—	—	1	—	—	—	—	—	—	—	1
Puerperal pyrexia	—	—	—	—	—	—	—	—	24	4	—	—	28
Puerperal fever	—	—	—	—	—	—	—	—	3	3	—	—	6
Ophthalmia neonatorum	6	—	—	—	—	—	—	—	—	—	—	—	6
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia.....	58	53	24	27	8	28	20	17	43	32	51	33	394
Malaria	—	—	—	—	—	—	—	1	1	1	2	—	5
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—
Trench fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	88	81	57	68	58	311	144	65	147	60	91	45	1215

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

	Case-rate per 1,000 living	
	Birkenhead	England and Wales
Smallpox	0.00	0.02
Scarlet fever	1.92	3.21
Diphtheria	2.33	1.18
Enteric fever	0.03	0.04
Puerperal pyrexia	0.18	0.14
Puerperal fever	0.03	0.05
Erysipelas	0.66	0.45

Encephalitis lethargica.—Five cases were notified during the year.

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

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

Smallpox was present in many parts of England and Wales throughout the year; 631 cases being notified. The Registrar-General's returns show the prevalence and mortality to have been as set out below:—

Year	Number of cases	Deaths
1924	3,792	13
1925	5,365	9
1926	10,205	19
1927	14,769	49
1928	12,433	53
1929	10,975	39
1930	11,855	28
1931	5,665	9
1932	2,070	3
1933	631	2

DISINFECTION

Books.—202 Public Library books were collected from infected houses and disinfected.

Dwellings.—492 house-disinfecting notices were served; 648 houses or parts of houses were disinfected during the year.

Bedding and clothes.—Infected bedding and clothes were collected from 612 dwellings and disinfected. In 44 further cases infected or discarded bedding and clothes were destroyed.

Visits and revisits paid to houses, etc., by the Infectious Diseases Inspector.—2,822 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 Medical Superintendent of the Birkenhead Infirmary and Public Assistance Institution and the Public Vaccinators during the year ended 30th September, 1933, is given below:—

Name of District	Name of Medical Officer or Public Vaccinator	No. of successful primary vaccinations of persons:—			No. of success- ful re-vaccina- tions, <i>i.e.</i> , of persons who had been success- fully vaccinated at some previous time
		Under 1 year of age	1 year and upwards	Total	
Birkenhead	Dr. H. C. Pierce	560	28	588	4
Tranmere (and Prenton)	Dr. H. L. Pearson	435	14	449	11
Birkenhead Infirmary and Institution	Dr. R. A. Grant	10	1	11	—
	Total ..	1,005	43	1,048	15

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, 1932, inclusive, viz.:—

	Birkenhead District	Tranmere District	Prenton District	Whole Borough
No. of births	1,469	1,202	16	2,687
Successfully vaccinated	814	712	12	1,538
Insusceptible of vaccination	17	13	—	30
Had smallpox	—	—	—	—
Number in respect of whom statutory declarations of conscientious objection have been received	381	324	1	706
Died unvaccinated	82	59	2	143
Postponements, removals, or cases not found, etc.	175	94	1	270
Total No. of certificates and copies of certificates of successful primary vaccination of children under 14 received during the calendar year 1933	763	685	23	1,471
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 1933	423	331	9	763
No. of cases successfully vaccinated after the declaration of conscientious objection had been made	3	—	—	3
No. of copies of certificates of successful primary vaccination sent to Vaccination Officers of other districts during 1933 ..	33	36	—	69

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 5 medical practitioners; a total of 80,000 units was given out.

IMMUNISATION AT CLINICS AGAINST DIPHTHERIA

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

During the year ended 31st December, 1933, 116 children were presented at the various clinics for the first of a course of immunising injections. Of these, 66 completed the course before the end of the year, 18 had 2 injections and 22 had 1 injection. In addition, 7 children whose treatment was commenced in 1932 were given their final injections, making a total of 73 children completing the course in 1933. From the date of the commencement of the treatment in 1926 until the end of 1933, 618 children have received the full course of 3 or more injections.

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

Details of treatment carried out in 1933 are set out below:—

Clinic	1 injection	2 injections	3 or more injections	Total	1932 cases completed	Total
Hamilton Square	29	13	46	88	2	90
North	—	—	—	—	—	—
St. Paul's Road	2	3	11	16	2	18
Mount Grove	1	2	9	12	3	15
Total	32	18	66	116	7	123

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

HOME NURSING

The arrangement made between the Corporation and the Birkenhead District Nursing Society, dating from 1st July, 1919, provides for the home nursing of cases of influenza and pneumonia. During the year 1933 the Society's nurses paid 1,529 visits in respect of 100 cases.

INFECTIOUS DISEASES HOSPITAL

Cases treated during 1933.—At the beginning of the year there were 65 patients in the Infectious Diseases Hospital.

During the year there were 751 patients admitted to the wards, so that the total number of cases treated during 1933 was 816. The total number of in-patient days in respect of the cases admitted was 22,281 or 29.7 days per patient.

There were 657 discharges and 52 deaths during the year; leaving 107 patients in hospital on 31st December, 1933.

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

TABLE I 3

Patients sent in as suffering from	In hospital at beginning of year	Admitted during year	Died during year	Discharged during year	Remaining in hospital at end of year
Scarlet feverM.	10	94	1	87	16
.....F.	19	135	2	124	18
Diphtheria.....M.	19	158	6	144	27
.....F.	19	192	9	156	46
Enteric feverM.	1	6	1	6	0
.....F.	1	3	1	3	0
Cerebro-spinal feverM.	0	1	1	0	0
.....F.	0	0	0	0	0
ErysipelasM.	0	13	3	10	0
.....F.	3	28	4	27	0
MeaslesM.	2	57	11	48	0
.....F.	1	37	9	29	0
Whooping coughM.	0	4	2	2	0
.....F.	0	6	1	5	0
Other diseasesM.	0	8	1	7	0
.....F.	0	9	0	9	0
Totals	65	751	52	657	107

The hospital was again unusually busy throughout the year, the number of cases admitted being 225 in excess of the number admitted during 1932. This was accounted for partly by the effort made to admit to hospital, as far as possible, complicated cases of measles during an outbreak in the early months of the year, and partly by a marked increase in the incidence of scarlet fever and diphtheria. The heavy measles death-rate recorded above is convincing proof of the necessity of admitting to hospitals, at an early stage, at least complicated cases of this disease occurring in pre-school children.

In addition there was again a considerable increase in the number of cases of erysipelas admitted—41—as against 23 cases in 1932, and 1 case in 1931, in spite of the fact that for several weeks at the end of the year no cases of this disease could be received owing to lack of accommodation.

Diphtheria.—The type of diphtheria prevalent during the year was of moderate severity, but “toxic” cases were not lacking. The relative lowness of the death-rate was satisfactory—4.8% of actual clinical cases as compared with 7.1% in 1932, 9% in 1931, and 14.7% in 1930. As in previous years the most formidable obstacle in the treatment of cases of diphtheria was the *late stage of the disease at which they came under hospital treatment*. This is due in part to lack of appreciation by parents of the seriousness of the illness; but in part also to a regrettable tendency on the part of a few medical practitioners to defer sending their cases into hospital or employing anti-diphtheritic treatment until they have obtained a “positive swab.”

A delay of twenty-four hours or more may be caused in this way, and may be highly dangerous to the patient; it is significant that in practically every fatal case during the year there was a history of a positive swab prior to admission.

Of 350 cases admitted to the diphtheria wards, 230 were finally diagnosed as suffering from diphtheria. The addition of one case admitted erroneously diagnosed as scarlet fever brings the diphtheria total to 231.

Of the remainder, 22 were "carriers," and 98 were found to be suffering from diseases other than diphtheria or from no disease. The corrected diagnoses in these cases were as follows: tonsillitis (61), catarrhal laryngitis (7), Vincent's angina (7), scarlet fever (6), peritonsillar abscess (3), acidosis (2), rhinitis (2), bronchitis (2), Ludwig's angina (1), cervical adenitis (1), pulmonary collapse (1), otitis media (1), erysipelas (1), and no disease (3).

There were 11 deaths ascribed to diphtheria. The mortality calculated on actual clinical cases was 4.76%.

Of cases found not to be suffering from diphtheria three died—a male aged 58, suffering from Ludwig's angina, who died within 6 hours of admission to hospital, a female aged 7, suffering from peritonsillar abscess, and a male aged 3, suffering from acidosis. The latter two died within 5 minutes and half-an-hour respectively of admission to hospital.

Of the 11 cases dying of diphtheria, two died within 24 hours of admission.

12 cases were admitted suffering from laryngeal obstruction; in 7 of these there was no clinical evidence of diphtheria. Of the remaining 5, 4 were intubated, and 2 of these died—one with extensive bronchial obstruction and the other, a toxic case, with multiple hæmorrhages. The operation of tracheotomy was performed on the case with bronchial obstruction after intubation had failed to give relief.

Tonsillectomy.—It was found unnecessary to perform this operation on any of the carriers encountered in the course of the year.

Duration of illness before admission to hospital.—The average duration of illness before admission was 3.94 days.

Days in hospital.—The average length of stay in hospital of all cases suffering from diphtheria was 42.2 days.

Table showing age and sex of diphtheria patients:—

Age-period in years	0-1 yrs.	1+ yrs.	2+ yrs.	3+ yrs.	4+ yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-29 yrs.	30-39 yrs.	40+ yrs.	Totals
RecoveredM.	...	2	1	6	10	45	23	4	1	...	...	92
.....F.	...	1	8	5	13	48	25	16	10	1	1	128
DiedM.	...	...	1	2	1	...	...	...	...	...	...	4
.....F.	...	1	1	...	2	3	...	...	...	...	...	7
Totals ...	...	4	11	13	26	96	48	20	11	1	1	231

Hospital death-rate 4.8 per cent.

Immunisation.—The immunisation of members of the staff and of patients admitted suffering from diseases other than diphtheria has been continued. In addition, other children (e.g., the brothers or sisters

of patients) have been immunised at the request of parents. The following table shows the work done at the hospital during the year 1933 as regards testing for susceptibility (Schick testing) and immunisation of those shown to be susceptible. This work is also carried on at the school and child welfare clinics.

	Tested	Positive	Negative	Immunisation		
				Completely immunised	Partially immunised	Immunisation in progress
Staff	9	3	6	3	...	...
Patients {	Over 15.....	26	5	21	4	1
	15 & under.....	167	49	118	37	9
Totals	202	57	145	44	10	4
Re-Schicked.....	10	—	10	...	...	...

Scarlet fever.—The type of scarlet fever prevalent during the year was mild. A very small proportion of the cases admitted to hospital were of the septic or toxic type and only one death occurred—a case in which fulminating peritonitis supervened at the height of the illness.

During the year there were 229 cases admitted to the hospital notified as suffering from scarlet fever. The diagnosis was confirmed in 202 cases. The addition of 6 cases erroneously diagnosed as suffering from diphtheria brings the total to 208. There was also admitted one case suffering from diphtheria and scarlet fever concurrently; this case has been included in the figures for diphtheria.

The corrected diagnoses in the 27 mis-diagnosed cases were as follows: rubella (6), tonsillitis (3), fourth disease (3), measles (2), puerperal fever (1), urticaria (1), acidosis (1), diphtheria (1), scurvy-rickets (1), and no disease (8).

There was one death—the case of peritonitis referred to above. The case mortality was 0.5%.

The above figures give a slightly inaccurate idea of the incidence of scarlet fever during the year, inasmuch as during November and December, owing to the shortage of beds at the hospital, many cases had to be refused admission and were nursed in their own homes.

The following are the principal complications which were noted:—

Late adenitis	14 cases or 6.7 per cent
Otitis media	13 „ 6.2 „
Rhinitis	2 „ 1.4 „
Nephritis	3 „ 1.4 „
Arthritis	2 „ 0.9 „
Endocarditis	1 „ 0.5 „
Vaginitis	1 „ 0.5 „

The average length of stay in hospital of cases of scarlet fever discharged cured during the year was 32.2 days. The usual period of isolation for uncomplicated cases was 28 days (calculated from the onset of the disease).

One septic case was admitted during the year and after having a bilateral mastoidectomy performed was discharged home at the parent's request.

The presence of specific vulvo-vaginitis was noted on admission in the case of two children (non-residents of the area) admitted from other institutions. These cases upon discharge from the hospital were referred to the Medical Officers of Health of the areas concerned for the completion of their treatment.

Table showing age and sex of scarlet fever patients:—

Age-period in years	0-1 yrs.	1+ yrs.	2+ yrs.	3+ yrs.	4+ yrs.	5-9 yrs.	10-14 yrs.	15-19 yrs.	20-29 yrs.	30-39 yrs.	40+ yrs.	Totals
Recovered												
M.	...	4	7	8	5	35	16	1	4	4	1	85
F.	...	2	4	5	5	57	28	12	4	3	2	122
Died												
M.	...	...	...	...	...	...	...	...	...	...	...	—
F.	...	...	1	...	...	...	...	...	...	...	...	1
Totals ...	...	6	12	13	10	92	44	13	8	7	3	208

Hospital death-rate 0.5 per cent.

In recent years very few cases have been classed as "return" cases. In 1933 there were 10 cases which were regarded as "return" cases, the cause no doubt being the increased incidence of the disease during the year. These cases constituted 4.8% of the total number of cases admitted; the "infecting case rate" was 2.9%.

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

Measles.—During the first few months of the year a sharp outbreak of measles occurred. As was to be expected with such an unfortunate seasonal incidence, the proportion of cases showing respiratory complications and sequelae became relatively high. It was necessary, therefore, to admit to hospital many cases. It was not possible, however, to admit all cases recommended for admission. A careful selection of the apparently more necessitous cases was made and 94 cases, notified as suffering from measles, were admitted. The diagnosis in 81 of these cases was subsequently confirmed. In addition there were admitted 2 cases mis-diagnosed as scarlet fever, making the total number of cases of measles treated 83.

The corrected diagnoses in 13 mis-diagnosed cases were as follows: rubella (8), broncho pneumonia (1), cervical adenitis (1), and no disease (3). There were 20 deaths, giving a death-rate of 24.1%.

Table showing age and sex of measles patients:—

Age-period in years	0-1 yrs.	1+ yrs.	2+ yrs.	3+ yrs.	4+ yrs.	5-9 yrs.	10-14 yrs.	15-20 yrs.	20+ yrs.	Totals
Recovered										
M.	2	11	7	6	4	11	1	..	..	42
F.	...	7	8	1	...	3	1	...	1	21
Died										
M.	2	8	..	1	...	2	...	...	..	13
F.	...	3	2	...	1	1	...	...	...	7
Totals ...	4	29	17	8	5	17	2	...	1	83

Hospital death rate 24.1 per cent.

In considering the above figures, and in particular the death-rate, it must be borne in mind that practically all the cases, at the time of admission, suffered from some complication; also that over 50% of the total admissions were aged two years or under; and that 75% of the deaths occurred in these age groups.

The principal complications noted were:—

Broncho-pneumonia	26	cases or 31.3 per cent
Enteritis	22	„ 26.5 „
Otitis media	11	„ 13.2 „
Laryngitis	7	„ 8.5 „

The average duration of illness before admission to hospital was 3.3 days.

The average length of stay in hospital of cases discharged cured was 24.2 days.

Erysipelas.—There were 41 cases admitted to the wards notified as suffering from erysipelas. The diagnosis was confirmed in 36 cases. The remaining five were suffering from mumps (1), fourth disease (1), cellulitis (1), herpes (1), and no disease (1).

There were 6 deaths—children aged 4 weeks, 9 weeks, 6 months, 6 months, 8 months, and 1 year respectively.

The majority of the cases were facial in origin.

Table showing age and sex of erysipelas patients:—

Age-period in years	0-1 yrs.	1+ yrs.	2+ yrs.	3+ yrs.	4-9 yrs.	10-14 yrs.	15-19 yrs.	20-29 yrs.	30-39 yrs.	40-49 yrs.	50-59 yrs.	60-69 yrs.	70+ yrs.	Tot- als
Recovered														
M.	2	...	...	2	1	...	1	3	...	...	...	2	...	11
F.	2	...	...	...	...	1	...	4	2	2	4	1	3	19
Died														
M.	1	1	...	...	...	...	...	...	...	...	...	...	...	2
F.	4	...	...	...	...	...	...	...	...	...	...	...	...	4
Totals ...	9	1	...	2	1	1	1	7	2	2	4	3	3	36

Hospital death-rate 16.7 per cent.

Enteric fever.—The diagnosis of enteric fever was confirmed in 6 out of 9 cases admitted to the wards notified as suffering from, or for observation as cases of, this disease.

Of the three cases mis-diagnosed or sent in for observation, one was suffering from no disease and the others were suffering from phthisis and epidemic jaundice respectively.

The infecting organism was the bacillus typhosum in three cases and the bacillus paratyphosus B. in the others.

There was one death—a case of intestinal perforation in a male, aged 31 years.

One case notified as enteric fever and found to be suffering from epidemic jaundice died—a female, aged 52 years.

Other Diseases.—*Whooping cough.*—There were 10 patients admitted to the wards suffering from whooping cough, or whooping cough and broncho-pneumonia.

Three children, aged 2 months, 3 months and 1 year, died, the cause of death being myocarditis, broncho-pneumonia, and convulsions respectively.

Cerebro-spinal meningitis.—One case was admitted during the year notified as suffering from cerebro-spinal meningitis. The diagnosis was confirmed. The patient, a male aged nine months, died.

One case, aged six months, was admitted notified as "meningitis" and was found on admission to be suffering from post-measles encephalitis. The patient died after being three weeks in hospital.

Chickenpox.—Eleven cases were admitted as chickenpox during the year. All recovered.

Impetigo.—One case was admitted and discharged cured.

Rubella.—Four cases were admitted and discharged cured.

Staff.—Throughout the year Dr. J. M. Davidson acted as resident assistant medical officer at the hospital.

The general health of the staff was fairly satisfactory during what was an exceptionally heavy year, most of the illnesses occurring being of a mild nature. As regards infectious disease, two nurses contracted diphtheria, one scarlet fever and two rubella. The two nurses who contracted diphtheria had been previously immunised, retested, and found "insusceptible." Presumably, infection occurred as a result of close contact with a particularly virulent strain at a time when their general resistance to disease was low. Both cases were of a mild type.

As referred to in last year's report a commencement was made in 1932 of testing the susceptibility of members of the nursing staff to scarlet fever. During 1933, all nurses have been tested for such susceptibility and those found to be susceptible have been actively immunised.

Training of nurses.—Courses of instruction for the examinations of the General Nursing Council have been maintained continuously throughout the year. During the year six nurses completed their training; one of these decided to pass out of hospital without taking advantage of the courses of lectures offered. Five nurses presented themselves for the preliminary examination, and all passed. Three presented themselves for the final examination, and all passed. The remaining two nurses who completed their training were debarred from sitting the final examination during the year because of their youth; one of these has remained on the staff; the other has commenced training in a general hospital elsewhere.

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

MUNICIPAL LABORATORY

ADMINISTRATIVE ARRANGEMENTS

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

The work carried out for the Infectious Diseases Hospital, Thingwall Sanatorium, and Birkenhead Infirmary 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 observation.

The number of investigations showed an increase in 1933 as compared with 1932—11,513 against 9,960.

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 1933 are shown in the following table:—

Examination	Total
Sputa for <i>B. tuberculosis</i> (288 positive)	1668
Cultures for <i>B. diphtheriae</i> (533 positive)	4207
Diphtheria virulence tests (16 positive)	36
Blood tests (Widal) against enterica group (26 positive)	80
Urine for <i>B. typhosus</i>	30
Faeces for <i>B. typhosus</i>	36
Smears for gonococci (196 positive)	607
General examinations (1) Bacteriology	2396
(2) Biochemistry	943
(3) Pathology	663
Vaccines issued	99
Milk, graded, bacterial counts of	194
Milk, samples for tubercle bacilli	403
Water examinations	148
Total	11513

Bacteriological examinations of water.—Examinations of the Alwen water supply were carried out at the laboratory during the year; 86 complete bacteriological examinations were made, samples being taken from the mains, and from the Alwen reservoir before and immediately after filtration. In addition, 66 specimens 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 milk was carried out. 194 samples were

examined. The work is undertaken primarily because of the introduction into the Borough of "designated milks" as laid down in the Milk (Special Designations) Order, 1923. These milks are:—

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

The bacteriological examinations consist of:—

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

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

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

(B) *The examination of ungraded milk for tubercle bacilli.*—The procedure followed in connection with the examination of milk for tubercle bacilli was explained in my 1927 report. During 1933, 406 samples were examined for tubercle bacilli.

Out of these 406 samples, living tubercle were found in 51. After making allowance for duplicates this means that *living tubercle bacilli were found in 12% of the samples examined*. As much of the tuberculosis found in children is due to such milk, the importance of this branch of the work can hardly be over-emphasised.

(C) *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. It has been found that, in areas where routine examinations have been carried out, even though only semi-official in character, a marked improvement in the quality and cleanliness of the milk has followed. It is hoped that in the near future it will be found possible to arrange for the routine examination of the ordinary milk supplied to Birkenhead citizens to be carried out at the laboratory.

Infective meningitis.—During 1933, the diagnosis of one case of cerebrospinal meningitis was confirmed by the Laboratory. In addition, one case of meningitis was found to be pneumococcal in origin, and another to be tuberculous.

Typhoid and paratyphoid.—Typhoid and paratyphoid B. were both present in Birkenhead during the year. As in a number of cases of typhoid there was a history of the patient having eaten shellfish, it is hoped that during 1934 it will be possible to arrange for the routine examination of shellfish retailed in the area.

Food poisoning.—No cases of food poisoning were confirmed by the Laboratory during the year. Some specimens of condensed milk suspected as a source of illness were examined during the summer, but with negative results.

Diphtheria.—A number of cases of diphtheria occurred among patients and staff at the Birkenhead Infirmary during the early part of the year. Over 900 swabs were examined and several virulent carriers were found.

It is greatly to the credit of the Infirmary staff that, with a number of carriers among the nurses, no case of a patient contracting the disease from this source occurred during the year.

Streptococcal infections.—It is surprising how frequently streptococcal infections occur among the general population. In conjunction with the Infectious Diseases Hospital, regular examinations of throat swabs are carried out for the presence of hæmolytic 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 two 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 1933, there is a considerable amount of steady work done in this connection, and consultations with the Veterinary Officer are frequent.

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 Infirmary, 4 courses of lectures were given to the nursing staff on bacteriology, pathology, and biochemistry, in connection with the examinations for the State Certificate of the General Nursing Council.

Museum.—Many interesting specimens were added to the pathological museum during the year, which will be of great value for teaching purposes.

Comparison with previous years.—Below is set out a comparison between the work done in the Laboratory in 1930, 1931, 1932, and 1933:—

Nature of Specimens.	1930	1931	1932	1933
Sputa for B. tuberculosis	482	1473	1696	1668
Cultures for B. diphtheriae	1514	1994	3114	4207
Diphtheria virulence tests	18	20	36	36
Blood tests (agglutination)	32	39	106	80
Smears for gonococci	84	511	596	607
General bacteriological examinations	120	742	1839	2462
General biochemical examinations ...	—	257	1254	943
General pathological examinations ...	—	152	547	663
Vaccines issued	—	29	65	99
Milk, graded, bacterial counts	93	161	195	194
Milk, samples for tubercle bacilli ...	99	421	407	406
Water, bacteriological examinations...	87	97	105	148
Total	2529	5896	9960	11513

Laboratory accommodation.—The present premises are not only inadequate, but so restricted as to interfere with the efficiency of the work done. The question of the provision of new premises has been under consideration for a considerable time, but it has not been found possible up to the present to proceed with the carrying out of the Health Committee's proposals.

BIRKENHEAD INFIRMARY

ADMINISTRATIVE ARRANGEMENTS

The appropriation by the Health Committee of the Birkenhead Infirmary as a hospital to be administered under the Public Health Acts came into effect on the 1st April, 1933. It is now an integral part of the Public Health services of the Borough and is administered under the direction of the Medical Officer of Health on behalf of the Health Committee. For the period 1st January to 31st March, 1933, the hospital was administered by the Public Assistance Committee under the Poor Law Acts.

A proposal to alter the name of the hospital from "The Birkenhead Infirmary" to "The Birkenhead Municipal Hospital" was under consideration at the end of the year.

The hospital contains 547 beds. Under an agreement between Birkenhead and the County Borough of Wallasey, the latter Authority have the right to have at any one time not more than 150 patients from their area maintained at their cost in the Infirmary.

Since the appropriation of the hospital several developments have taken place. Both medical and surgical diathermy are now available for patients in the hospital, new up-to-date sterilisers have been installed in the operating theatre, and a new screening stand has been obtained for the X-ray department.

The whole-time medical staff has been augmented, a new establishment being approved by the Council. This staff now consists of the Medical Superintendent, Deputy Medical Superintendent, Senior Resident Medical Officer, and three Resident Medical Officers.

There is also a visiting physician, a visiting ophthalmic surgeon, a visiting radiologist, and a visiting dental surgeon. In addition, Dr. Foster, Clinical Tuberculosis Officer, attends at the Infirmary in the capacity of consultant physician in connection with the cases of tuberculosis.

The nursing staff consists, in addition to the Matron, of 32 trained nurses (18 sisters and 14 staff nurses) and 80 probationer nurses.

Dr. R. A. Grant, F.R.C.S. (Ed.), who had for some time been acting as Deputy Medical Superintendent, was on 24th April, 1933, appointed Medical Superintendent and has been in charge of the Infirmary throughout the year. Dr. Grant has prepared all the statistics relating to cases dealt with which appear in this report.

TABLE B I 1
Admissions, births, discharges and deaths, 1933

	Men	Women	Children	Total
In Infirmary at 31st December, 1932	189	142	98	429
<i>Admissions:</i>				
From own homes or other hospitals	1212	1598	1039	3849
From Birkenhead Public Assistance Institution ..	44	22	22	88
From Scattered Homes	—	—	22	22
Births in Infirmary	—	—	309	309
Total cases dealt with	1445	1762	1490	4697
<i>Discharges:</i>				
To own homes or other hospitals	879	1283	1185	3347
To Birkenhead Public Assistance Institution ..	70	63	21	154
To Scattered Homes	—	—	17	17
Deaths in Infirmary	307	267	154	728
Total discharges and deaths	1256	1613	1377	4246
Cases in Infirmary, 31st December, 1933	189	149	113	451

The number of admissions to, and births in, the Infirmary—4,268—shows an increase of 433 over 1932, and is the largest number recorded at the Infirmary.

There were 309 births, an increase of 44 over the previous year. The number of deaths (728) is high, but a large number of cases were sent in to the Infirmary in the terminal stages of an illness when practically nothing could be done for them; these included many cases of advanced tuberculosis.

Many senile and chronic cases who did not require active medical treatment were also admitted.

TABLE B I 2
Surgical operations carried out, 1933

Major operations performed under general anæsthesia (excluding tonsils and adenoids)	621
Operations for tonsils and adenoids:—	
School medical service	160
Other	61
	221
Eye operations	7
Nasal operations	2
	851

TABLE B I 3
Maternity cases dealt with, 1933

	Total No. of women dealt with	Married	Single	Total No. of children dealt with	Live Births	Still Births
Cases dealt with	331	299	32	326	309	17

There were seven maternal deaths during the year.

Thirty-eight obstetrical operations were performed during 1933 as against 23 in 1932.

TABLE B I 4
X-ray and ultra violet ray treatment, 1932

X-ray examinations made of:—					
Stomach	...	...	...	...	129
Kidney	...	...	...	...	104
Chest	...	...	...	...	514
Fractures and miscellaneous	...	...	...	...	412
					1159
Patients to whom sunlight treatment was given					324
Patients to whom X-ray treatment was given...					280
X-ray films used	...	...	...	...	3406
Patients screened	...	...	...	...	1400

During 1933 the increase in these forms of treatment as compared with 1932 were as follows:—

X-ray examinations made	...	...	...	...	232
Patients to whom sunlight treatment was given...	...	...	...	...	19
Patients to whom X-ray treatment was given	...	...	...	...	210
X-ray films used	...	...	...	...	1270
Patients screened	...	...	...	...	100

TABLE B I 5
Ophthalmic examinations and treatment, 1933

Patients seen	...	...	...	...	706
Attendances made by patients	...	...	...	...	811
Submitted to refraction:—					
Spectacles prescribed	...	...	...	...	142
Spectacles not prescribed	...	...	...	...	564
					706
Operations performed	...	...	...	...	7

TABLE B I 6
Massage, electrical and remedial exercises treatment, 1933

Patients who received massage treatment	...	...	...	...	76
Patients who received massage and electrical treatment	...	...	...	...	15
Patients who received electrical treatment only	...	...	...	...	27
Patients tested for electrical reactions	...	...	...	...	4
Patients treated by exercises	...	...	...	...	5
					127

TABLE B I 7
Dental treatment, 1933

Patients examined	...	...	...	...	327
Patients treated: for extractions	...	...	...	271	
for scalings	...	...	...	6	
					277

TABLE B I 8
Specimens sent to Municipal Laboratory, 1933

Bacteriological specimens	3460
Biochemical specimens	801
Pathological specimens	483
	4,744

The total number of specimens forwarded to the Municipal Laboratory from the Infirmary showed an increase of 923 over the previous year.

TABLE B I 9
Examinations of nursing staff, 1933

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	25	15	10
Hospital Final Examination	25	22	3

MENTAL DEFICIENCY

ADMINISTRATIVE ARRANGEMENTS

Cases of mental deficiency fall into two categories—

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

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

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

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

4 cases were sent to institutions by judicial orders, and 1 was admitted to an institution at the instance of its parents.

3 cases were placed under supervision pending institutional vacancies arising; 27 cases were placed under home supervision; 2 cases died during the year; 5 cases were discharged from institutions.

13 first visits and 261 re-visits were paid to the homes of mental defectives by the Health Nurses.

At the end of 1933 there were under the care of the Mental Deficiency Acts Committee 469 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	11	5	16
Chester Institution	0	1	1
Royal Albert Institution (Lancaster)	6	2	8
The Mary Dendy Home (Cheshire)	3	4	7
Stoke Park Colony (Bristol).....	2	3	5
Royal Hostel (Surrey)	1	0	1
Whittington Hall (Chesterfield)	0	3	3
Crang Hall Certified Institution	0	10	10
	23	28	51

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

Birkenhead Institution	11	5	16
Royal Albert Institution (Lancaster)	3	1	4
	14	6	20

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

2	3	5
---	---	---

Under home supervision—	Males	Females	Total
(a) Cases discharged from institutions ...	2	2	4
(b) Cases which should be in institutions	35	21	56
(c) Others (including ex-Special School cases, 220 in number)	206	125	331
Under Guardianship	1	1	2
	244	149	393
Total	283	186	469

Scarcity of Institutional accommodation.—From the above table it will be seen that there are at the present time 56 cases under home supervision awaiting institutional accommodation. In addition there are 20 cases in institutions for whom provision should be made by the Local Mental Deficiency Authority. These are cases which have been placed at the instance of the Public Assistance Committee, parents, etc. It will be noted, therefore, that there is a total of 76 cases as at the end of the year 1933 for whom institutional accommodation should be provided; the majority of the cases being of a *low grade* type.

Reference has been made in previous years to the difficulties experienced in obtaining accommodation for these cases.

Cranage Hall Certified Institution was opened in 1932 for the reception of 62 *high grade* feeble-minded female patients over the age of 16 years in the first instalment of the accommodation to be provided at the Institution. The number of beds allocated to Birkenhead patients was 16. 10 Birkenhead cases were in the Institution at the end of 1933.

Occupation Centre.—The question of the provision of an occupation centre in Birkenhead for mentally defective persons under home supervision was under consideration during the year. Premises have been acquired and it is hoped that the Centre will be established at the beginning of the coming year.

CASES DEALT WITH UNDER THE EDUCATION ACT, 1921

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

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

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

Blind persons suffering from epilepsy, fits or nervous disability.

WELFARE OF THE BLIND

GENERAL FACTS REGARDING BLIND PERSONS IN BIRKENHEAD

Number and ages of blind persons.—The total number of blind persons in Birkenhead coming within the scope of the Blind Persons Act, 1920, on 31st December, 1933, was 315; of these 174 were males and 141 females.

Age.		M.		F.		Total.
0—5		—	...	1	...	1
5—16		3	...	1	...	4
16—21		10	...	3	...	13
21—30		13	...	5	...	18
30—40		11	...	9	...	20
40—50		25	...	15	...	40
50—60		22	...	19	...	41
60—70		40	...	34	...	74
Over 70		50	...	54	...	104
Total ...		174	...	141	...	315

The ascertained causes of blindness are as follows:

	M.	F.	Total.
Cataract only	54	37	91
Cataract and myopia	5	4	9
Cataract and glaucoma ...	2	1	3
Cataract and other defects	7	10	17
Glaucoma only	16	14	30
Myopia only	13	17	30
Corneal obstruction	14	22	36
Other causes	63	36	99
	174	141	315

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

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

	M.	F.	Total.
Mentally defective	6	4	10
Deaf	12	4	16
Deaf and dumb	1	1	2
Otherwise physically defective...	14	8	22
	33	17	50

Children under 16 years of age.—These numbered 5; 3 boys and 2 girls. 1 boy and 1 girl were attending schools for the blind; 2 boys were awaiting admission to such a school; and 1 girl, who was under 7, was not in any school or institution.

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

	M.	F.	Total.
Employed	18	3	21
Trained but unemployed ...	4	3	7
Under training	9	3	12
Not trained, but probably trainable	5	6	11
Probably unemployable ...	135	124	259
	171	139	310

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	2	13
Newsvendor	1	—	1
Tuners	2	—	2
Miscellaneous	2	1	3
Total	18	3	21

Home Teacher.—Miss Halliwell terminated her appointment as Home Teacher on the 2nd June, and was succeeded by Miss M. D. Gourlay, who took up duties on the 20th November.

Miss Halliwell and Miss Gourlay paid respectively 1,118 and 181 visits to blind persons, including 369 and 8 visits for the purpose of teaching Braille.

Home visiting by Health Nurses.—The Health Nurses paid 14 first visits and 63 revisits to blind persons in the area.

Wireless Sets.—6 wireless sets, received from the British "Wireless for the Blind" Fund, were distributed during the year, making a total of 195 sets so distributed.

Financial assistance to blind persons.—At the end of the year 204 blind persons (109 males and 95 females) were in receipt of financial assistance under the scheme of the Council for the Welfare of the Blind.

HOUSING AND GENERAL SANITATION

ADMINISTRATIVE ARRANGEMENTS

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

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

GENERAL

Area of the Borough.—The area of the Borough (land and inland water) 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 approximate number of dwelling houses of all descriptions within the Borough, excluding institutions, on 31st December, 1933, was 31,115.

Number of other buildings in the Borough.—The approximate number of other buildings within the Borough, on 31st December, 1933, was 5,483.

New dwellings erected, 1921-1933.—The new dwellings erected in the Borough between the date of the 1921 census and the end of 1933 were as follows:—

(1) Between the date of the 1921 census and 31st December, 1932—	
(a) With State assistance under the Housing Acts, 1919-1925	
(i) By the Local Authority	2305
(ii) By other bodies or persons	609
(b) Other	961
	— 3875
(2) During 1933—	
(a) With State assistance under the Housing Acts, 1919-1925	
(i) By the Local Authority	36
(ii) By other bodies or persons	0
(b) Other	336
	— 372
Total	4247

In addition to the above, 10 houses were converted into 28 flats, making a further nett gain of 18 houses.

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

Uninhabited property.—The following is a return of uninhabited property in Birkenhead on the 31st December, 1933:—

	Private houses	Shops	Dock Cottages	Total
Birkenhead	60	51	...	111
Clughton, Oxtou and Bidston	147	16	...	163
Tranmere, Rock Ferry, Prenton, Landican and Thingwall	144	22	...	166
Upton, Woodchurch, etc.	45	...	...	45
Total	396	89	...	485

The total uninhabited and unoccupied property on 31st December, 1932, was 379, so that there was an increase of 106 at the end of 1933 as compared with the previous year.

ADMINISTRATIVE ACTION TAKEN IN CONNECTION WITH HOUSING AND GENERAL SANITATION

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

During the twelve months ending December 31st, 1933, 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) 9119
- (b) Number of inspections made for the purpose... 49774
- (2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 1496
- (b) Number of inspections made for the purpose... 15844
- (3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation 502
- (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 908

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 6

3. **Action under statutory powers during the year:—**

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

- (1) Number of dwelling-houses in respect of which notices were served requiring repairs 908

(2) Number of dwelling-houses which were rendered fit after service of formal notices:—	
(a) By owners	730
(b) By local authority in default of owners	—
B.— <i>Proceedings under Public Health Acts:</i>	
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	3880
(2) Number of dwelling-houses in which defects were remedied after service of formal notices:—	
(a) By owners	3761
(b) By local authority in default of owners	—
C.— <i>Proceedings under Sections 19 and 21 of the Housing Act, 1930:</i>	
(1) Number of dwelling-houses in respect of which Demolition Orders were made	—
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	44
D.— <i>Proceedings under Section 20 of the Housing Act, 1930:</i>	
(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	—
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	—
E.— <i>Proceedings under Section 3 of the Housing Act, 1925:</i>	
(1) Number of dwelling-houses in respect of which notices were served requiring repairs	—
(2) Number of dwelling-houses which were rendered fit after service of formal notices:—	
(a) By owners	—
(b) By local authority in default of owners	—
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	—
F.— <i>Proceedings under Sections 11, 14, and 15, of the Housing Act, 1925:</i>	
(1) Number of dwelling-houses in respect of which Closing Orders were made	—
(2) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit	2
(3) Number of dwelling-houses in respect of which Demolition Orders were made	—
(4) Number of dwelling-houses demolished in pursuance of Demolition Orders	2

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

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

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

General Repairs—

Roofs repaired	868
Chimney stacks pointed or repaired	241
Rainwater gutters repaired or renewed	440
Down spouts repaired or renewed	350
Down spouts disconnected from drains	48
Walls pointed or repaired	1871
Lighting improved	27
Ventilation improved	132
Windows repaired	563
New sash cords provided	1534
Window fasteners renewed	506
Windows made to open	282
Firegrates repaired	667
Ovens repaired or renewed	226
Plastering to firegrates repaired	422
Hearthstones repaired or renewed	172
Floors relaid or repaired	1175
Skirting boards repaired or renewed	183
Wall plaster repaired	1803
Ceiling plaster repaired	678
Walls cleansed	269
Ceilings cleansed	173
Doors repaired	582
Door fasteners repaired or renewed	1001
Sinks repaired or renewed	161
Sink waste pipes repaired	289
Sink waste pipes trapped	49
Washing boilers repaired	274
Washing boilers—new pans provided	58
Washing boilers—firegrates repaired	212
Washing boilers—flues repaired	89
Dampness remedied	320
Nuisances from animals abated	31
Yard surfaces relaid or repaired	713
Yard surfaces—proper means of drainage provided	9

Sufficient water supply provided	11
--	----

Drainage—

New drains constructed	30
Old drains reconstructed	93
Drains repaired	201
Drains disconnected from sewer	4
Drains—inspection chambers provided	8
Drains ventilated	10
Drains cleansed	589
Self-cleansing gullies provided	63
Number of excavations made for the purpose of testing the condition of house drains	87
Number of smoke tests applied to drains of houses reconstructed under the supervision of this department	318
Number of water tests applied to drains	44
Number of smoke tests applied to the drains of new houses, in conjunction with the Borough Engineer and Surveyor's department	362

Water closets—

Roofs repaired	357
Walls repaired	321
New basins fixed	199
Connections repaired	505
Cisterns repaired or renewed	167
New flush pipes fixed	12
Provided with a sufficient supply of water	109
Doors repaired or renewed	271
Seats repaired or renewed	53

Ashpits—

Provided with doors	1
Abolished	231
Ashbins provided	1242

Miscellaneous—

(not included above)	1873
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(c) Slum clearance schemes and demolition orders

Work carried out in connection with slum clearance schemes and demolition orders.—During the year representations were made to the Health Committee in respect of 26 areas with a view to their being included in the Council's Housing Programme as suggested by the Minister of Health in order that they might be dealt with by means of Clearance Orders under Part I of the Housing Act, 1930. The Council approved of the representations. These 26 areas consisted of 448 houses, accommodating 578 separate families with a total population of 2,463 persons.

A schedule of individual houses was also submitted to and approved of by the Council for demolition under Section 19 of the Housing Act, 1930. These houses, 46 in number, accommodated 66 families with a total population of 229 persons.

The total number of houses, therefore, dealt with by Clearance Orders and Individual Demolition Orders was 494, affecting 644 families with a total population of 2,692 persons.

(d) General sanitation exclusive of housing

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

Number of smoke observations taken	45
Number of smoke nuisances from factory and other chimneys reported to the Health Committee	—
Number of schools specially examined by the sanitary inspectors	59
Number of cowsheds inspected	41
Number of inspections of dairies and milkshops	824
Number of inspections <i>re</i> offensive trades	257
Number of sewer ventilators inspected	75
Number of street gullies inspected	91
Number of caravans inspected	138
Number of caravans re-inspected	278
Number of back passages inspected	272
Number of investigations regarding the keeping of pigs, fowls, and other animals	87
Miscellaneous inspections (not included above)	2311

(e) Theatres, Music Halls, &c

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

84 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.

(f) Rats and mice

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

No. of premises inspected	261
No. of visits and re-visits	278
No. of notices served on occupiers	253
No. of notices served on owners	131
No. of premises satisfactorily dealt with	249
No. of premises still under observation or where work is being carried out	12

(g) Inspection of lodging houses, &c

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

Registered common lodging houses (11 in number):

Day inspections	2981
Night inspections	110
Insanitary conditions reported and dealt with	26

Houses let in lodgings (333 in number):

Day inspections	2578
Night inspections	—
Insanitary conditions reported and dealt with	246

Corporation tenement dwellings (132 in number):

Number of visits	3478
Insanitary conditions reported and dealt with	106

FACTORIES, WORKSHOPS AND WORKPLACES

FACTORY AND WORKSHOP ACTS, 1901 AND 1907

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

1.—Inspection of factories, workshops and workplaces

Premises	No. of		
	Inspections	Written notices	Prosecutions
Factories (including Factory Laundries)	6	1	—
Workshops (including Workshop Laundries) ..	601	48	—
Workplaces (other than Outworkers' premises)...	9	—	—
Total.....	616	49	—

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	50	50	—	—
Want of ventilation	2	2	—	—
Overcrowding	—	—	—	—
Want of drainage of floors	—	—	—	—
Other nuisances.....	21	21	—	—
Sanitary accommodation—				
Insufficient ..	1	1	—	—
Unsuitable or defective	6	6	—	—
Not separate for sexes	—	—	—	—
<i>Offences under the Factory & Workshops' Acts—</i>				
Illegal occupation of underground bake-house (s. 101)....	—	—	—	—
Other offences ..	5	5	1	—
(Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921.)				
Total.....	84	84	1	—

*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	54
Confectioners	48
Boot repairers	39
Cabinet making and upholstery	19
Dressmaking	18
Millinery	7
Tailoring	23
Laundries	19
Joinery and carpentry	18
Saddlery and harness making	6
Smiths	8
Wagon repairers	4
Motor and cycle repairers	12
Other workshops	35
	310

Other matters.

Workshops removed from the register	42
New workshops opened and placed on register	4
Underground bakehouses discontinued	1
Number of underground bakehouses on the register at the end of the year	20
Instances of failure to affix abstract dealt with	1

RAG FLOCK ACT, 1911

Pursuant to the provisions of the above Act, 12 visits were made.

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

POISONS AND PHARMACY ACT, 1908, AND ORDERS, 1909

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

Proceedings were instituted in respect of 1 sample of ointment, under the provisions of section 17 of the Pharmacy Act 1868, which was sold by a person not being a registered pharmaceutical chemist or chemist and druggist and which contained 4 grains of red mercuric oxide per ounce. It was not marked on the wrapper (1) with the name of the poison, (2) the word poison, (3) the proportion of the poison in relation to the total ingredients of the preparation and (4) the name and address of the seller of the poison.

A fine of £3 3s. 0d. and £1 11s. 6d. costs was inflicted.

HEALTH EDUCATION

As a result of the uncertain position of the Merseyside Boroughs Health Education Committee very little propaganda was undertaken during the year; the lectures numbering 13, given to a total audience of 1,850.

MATERNITY AND CHILD WELFARE

ADMINISTRATIVE ARRANGEMENTS

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

During the year the Maternity and Child Welfare Committee decided on the provision of a properly designed and equipped clinic at the South End of the Borough (similar in design to the North Health Clinic). Application was made to the Ministry of Health for their approval and the Ministry's sanction was received towards the end of the year. It is hoped that the erection of the premises will commence at the beginning of next year.

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

Mrs. Fletcher, Inspector of Midwives, retired on superannuation during the year. The Maternity and Child Welfare Committee appointed Dr. Mary Deacon as Inspector of Midwives and Miss E. A. Smith as Assistant Inspector of Midwives.

An extra Health Nurse was appointed during the year.

In addition to the part-time services of the Chief Health Nurse and the whole-time services of the Assistant Inspector of Midwives, the equivalent of the whole time of eight nurses was available for maternity and child welfare work at the end of the year.

INSPECTION AND SUPERVISION OF MIDWIVES

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

Number of midwives.—During the year 1933, 74 midwives entered their names on the local register as practising in the Borough. 3 midwives left the district and their names have been removed from the register accordingly.

Of the 74 midwives, 70 were trained and 4 untrained.

Number of cases attended by midwives.—The cases attended by midwives alone (no doctor being in attendance) numbered 2,127; over three-quarters of the total births in the Borough.

Visits of inspection.—The Assistant Inspector of Midwives paid 170 quarterly and 13 special visits of inspection. She also paid 74 visits to the homes of midwives, but was unable to obtain access.

Interviews in office.—31 midwives were interviewed during the year by the Inspector and Assistant Inspector of Midwives.

Cases of puerperal fever and puerperal pyrexia in practice of midwives.—15 cases of puerperal fever and puerperal pyrexia were investigated.

Cases requiring medical help.—381 cases were notified by midwives in which medical aid had been called in, as against 451 last year. 402 special enquiries were made regarding cases requiring medical help.

Notifications received from midwives.—30 cases of stillbirths were notified; 2 cases were notified of infants receiving artificial feeding; 1 case was notified in which a death of an infant had occurred in the practice of a midwife.

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

Ophthalmia neonatorum.—6 cases were notified during the year.

Notified	Treated at home	Treated in hospital	Vision unimpaired	Vision impaired	Total blindness	Deaths
6	4	2	6	—	—	—

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

HOME VISITING OF EXPECTANT MOTHERS, MOTHERS, AND YOUNG CHILDREN

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

2397 routine first visits were paid to infants.

4665 routine revisits were paid to infants under 1 year.

12747 routine visits were paid to children over 1 year and under 5 years old.

41 first visits and 3 revisits were paid in connection with the investigation of stillbirths.

6 cases of ophthalmia neonatorum were visited and kept under supervision.

92 first visits were paid to expectant mothers.

14 revisits were paid to expectant mothers.

191 visits were made in connection with deaths of infants.

5285 visits were made in connection with miscellaneous matters.

POSTNATAL CLINICS

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

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

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

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

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

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

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

	Hamilton Sq. (99 sessions)		St. Paul's Road (103 sessions)		Mount Grove (51 sessions)		North (102 sessions)	
	1st visits	Re- visits	1st visits	Re- visits	1st visits	Re- visits	1st visits	Re- visits
Attendances made by infants under 12 months	286	4926	234	3247	142	2018	294	4779
Attendances made by children aged 1—2 years.....	20	531	17	556	12	467	31	1088
Attendances made by children aged 2—5 years.....	30	289	25	369	14	213	47	780
Examinations of children by Doctor.....	333	3134	257	2512	175	1215	372	3658

Voluntary workers—I have again to express appreciation of the kind assistance given by voluntary workers at the various clinics.

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

182 nursing mothers and

347 children

and at a small charge to

269 expectant mothers.

Milk is given only to—

(a) Nursing mothers who are actually suckling their children ;

(b) Expectant mothers in the last three months of pregnancy ;

(c) Children up to nine months whose mothers are unable to nurse them ;

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

ANTENATAL CLINICS

Antenatal clinics were held throughout the year, twice weekly (Tuesday morning 9.30 a.m. to 12.30 p.m. and Thursday afternoon 2 to 5 p.m.) at Hamilton Square, and once weekly (Monday afternoon 2 to 5 p.m.) at the North Clinic. Clinics were held on 150 occasions ; the number of patients dealt with being 747 (7 of these made two separate series of attendances during the year) and the total number of attendances made being 2,798. Of this total 80 patients carried over from 1932 made 309 attendances.

Condition with regard to pregnancy.—The condition with regard to pregnancy of the 674 new cases at the time of their first visit was as follows:—

(a) 167 were in their first pregnancy.

(b) 402 were in their second or subsequent pregnancy (159 of these patients had attended the clinic during a previous pregnancy ; 91 during two previous preg-

nancies; 30 during three previous pregnancies; 15 during four previous pregnancies; 5 during five previous pregnancies; and 1 during six previous pregnancies.

(c) 105 were not pregnant.

Abnormalities.—The abnormalities or diseases found to be present in the new cases who attended the clinics during 1933 were as follows:

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

Abnormality or disease.	No. of cases
Cardiac disease	3
Albuminuria	3
Venereal diseases.....	1
Tuberculosis	1
Other defects	5

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

Abnormality or disease.	No. of cases
Varicose veins	8
Venereal diseases	19
Breech presentation	1
Albuminuria.....	12
Hydramnios.....	1
Tuberculosis	3
Caesarean section	3
Cardiac disease	12
White leg	1
Nephritis.....	1
Ectopic gestation.....	1
Mania	1
Other defects	10

Progress of pregnancies.

(1) *New cases.*

(a) Of the 167 women who came in their first pregnancy 129 were delivered before the end of 1933, having 72 boys and 58 girls (including 1 set of twins and 5 still-born children).

3 left the district.

24 were not delivered before the end of the year.

1 had a miscarriage.

(b) Of the 402 women who had had previous pregnancies 310 were delivered before the end of the year, having 168 boys and 147 girls (including 5 sets of twins and 15 stillborn children).

9 had miscarriages.

1 left the district.

81 were not delivered before the end of the year.

1 woman died.

(2) *Cases carried forward from 1932 (80 patients).*

(a) Of the 18 women who came in their first pregnancy 16 were delivered during the year, having 9 boys and 7 girls (including 1 stillbirth).
2 left the district.

(b) Of the 62 women who had had previous pregnancies 58 were delivered during the year, having 28 boys and 32 girls (including 2 sets of twins and 2 stillborn children).
4 were not pregnant.

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

HAMILTON SQUARE CLINIC
(102 Sessions.)

	First pregnancy	Subsequent pregnancy	Non-pregnant	From 1932	Total
Cases	117	286	86	50	539
Attendances.....	414	1242	159	218	2033
Number of individual women who attended	—	—	—	—	535

NORTH CLINIC
(48 Sessions.)

	First pregnancy	Subsequent pregnancy	Non-pregnant	From 1932	Total
Cases	50	116	19	30	215
Attendances.....	205	443	26	91	765
Number of individual women who attended	—	—	—	—	212

As has been stated above, 7 women made a second series of attendances during the year. The results of these attendances were as follows:

Delivered 2 (2 females)
Not delivered before the end of the year 1
Not pregnant 4

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

ARTIFICIAL SUNLIGHT TREATMENT

Artificial sunlight treatment was given to cases attending at the North Health Clinic. 66 sessions were held during the year. 30 cases attended for the first time, a total of 1,031 attendances being made; Dr. Williams was in charge of this work.

INFANT LIFE PROTECTION

At the end of the year the names of 64 children were entered on the register in accordance with the provisions of Part 65 of the Children and Young Persons Act, 1932, as having been taken by persons to keep for reward. 10 children were in St. Faith's Home, 14 in Christ Church Home, 4 in All Saints' Home, and 36 in charge of foster parents at private dwellings.

The Health Nurses paid 52 first visits and 400 revisits to these children.

OTHER PROVISION MADE BY THE LOCAL AUTHORITY

Cases dealt with at Maternity Hospital.—During the year 15 cases were admitted into the Maternity Hospital under the terms of the agreement; the number of bed days being 381.

Cases dealt with by the Birkenhead District Nursing Society.—During the year the Society's nurses paid 682 visits to 42 cases, under the agreement between the Society and the Corporation. In addition 876 visits were paid to 63 cases in children under 5 years of age not included in the agreement.

Cases of confinements attended by medical practitioners.—In 220 cases where doctors were called in to difficult cases of confinement the doctors' fees were paid by the Corporation under the provisions of the Midwives Act, 1918. Recovery of the full amount of fees paid was made in 23 cases, and of half the fees in 2 cases.

Temporarily necessitous cases attended by midwives.—In 89 cases where midwives attended temporarily necessitous cases of confinement the midwives' fees were paid by the Corporation under the provisions of the Maternity and Child Welfare Act, 1918. Recovery of part fee was made in 1 case.

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 1933, 22 children were sent to convalescent homes by the Association.

St. Faith's Home for Mothers and Babies.—Here accommodation is provided for unmarried mothers and their children—20 cots for babies and 12 beds for mothers. The number of cases admitted to the Home during the year was as follows:—

Expectant mothers	12
Babies	13

Birkenhead Maternity Hospital.—There are 31 beds provided at the hospital, including 3 isolation and 2 labour beds. The number of cases admitted during the year was 487.

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

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

Antenatal clinic: 1st visits 493; Revisits 1,799.

Postnatal clinic: children under 1 year—

1st visits 261; Revisits 1,832.

children 1—5 years—

1st visits —; Revisits 43.

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

Antenatal clinic: 1st visits 25; Revisits 45.

Postnatal clinic: children under 1 year—
 1st visits 110; Revisits 1,005.
 children 1—5 years—
 1st visits 33; Revisits 640.

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

AGENCIES NOT PROVIDED OR ASSISTED BY THE LOCAL AUTHORITY

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

The Birkenhead and Wirral Children's Hospital.
 The Charity Organisation Society.
 The Society for the Prevention of Cruelty to Children.
 The Gynæcological Clinic at the General Hospital.

NURSING HOMES

3 new applications for registration were made during the year.
 1 registered Nursing Home was closed voluntarily during the year.
 No orders were made cancelling registration.

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

The total number of Nursing Homes registered in the Borough at the end of the year was 13.

MATERNAL MORTALITY

During 1933, 14 women died in the Borough from causes associated with pregnancy and childbirth.

This gives a maternal mortality rate of 5.35 per 1,000 births (living and still), as compared with a rate of 4.23 for the whole country.

The causes of the deaths were as follows:—

Puerperal haemorrhage	4
Puerperal sepsis	2
Puerperal albuminuria and convulsions	4
Other accidents of childbirth	2
Other puerperal conditions	2

All these deaths were investigated by the medical staff of the department, confidential reports being sent to the Ministry of Health.

HEALTH OF SCHOOL CHILDREN

Staff.—The Medical Staff engaged in carrying out School Medical Service duties during the year consisted of Dr. Deacon, Dr. Williams, Dr. Foster, Dr. Ritchie, Dr. Davidson and Dr. Hodgson; 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. and Mr. W. G. Walch, 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. Hodgson) are also Assistant Medical Officers of Health, and co-ordination between the school medical services and the other health services provided by the Corporation is thus very close, so far as staff is concerned.

The constant interest in the work taken by Mr. Dempsey, the Director of Education, and the help which he is always ready to give, are gladly acknowledged.

School hygiene.—Annual inspections of the premises of all public elementary schools in the area are made by the Assistant School Medical Officers. Particular regard is paid to environment; adequacy of ventilation, lighting and sanitation; and the condition of the sanitary conveniences, lavatories, cloakrooms and playgrounds. Copies of the reports on these inspections (and of any made by the Sanitary Inspection Staff) are sent to the Director so that any necessary action may be taken.

The hygienic condition of council schools generally is good. This is true also of the majority of the non-provided schools; but the position and structure of some of them place them below the standard desirable in modern school premises.

Open-air education, holiday camps, etc.—There is no open-air school in Birkenhead. Stress has constantly been laid, in the annual reports which I have issued during the past fifteen years, on the advantage of making provision for that large class of subnormal children whose health would benefit by attendance at such a school, and who are unable, by reason of their physical condition, to derive proper benefit from teaching in ordinary schools.

One elementary school has open-air classrooms; and in some schools certain lessons are given in the playgrounds and outdoor visits for the purpose of nature study, etc., form a regular part of the curriculum.

253 children whom the head teachers had selected as being suitable cases to attend the fortnight's school camp held at Dyserth in May were medically examined. After numerous re-examinations, and treatment of skin conditions in a number of children by the Health Nurses, 206 were eventually passed as medically fit, and attended the camp. Two Health Nurses stayed at the camp for the purpose of giving first-aid or carrying out any necessary treatment for minor ailments.

32 children attending the Cloughton Road Council School, all of whom were passed as medically fit, spent two weeks in June in camp near Prestatyn.

Physical training.—The following statement regarding the arrangements for physical training has kindly been prepared by Mr. Dempsey.

Organised Physical Training finds a place on the time table of each school, elementary and secondary, under the control of the Local Education Authority.

The physical training in the elementary schools is carried out in accordance with the Board of Education Revised Syllabus of Physical Training for Schools (1933) and in each school the necessary equipment has been provided by the Education Committee. Where there are school halls the equipment for seniors includes balance benches, vaulting boxes, beating boards, mats, etc. In addition, the schools have equipment for organised games: football, cricket, net ball, etc.

The Education Committee have from time to time arranged courses of instruction for teachers in elementary schools. Within the last year the following courses, attended by teachers from each school, were arranged. In addition to those taking actual part in the classes many other teachers attended the courses as observers. The lessons, usually twelve in number, consisted of two-hour periods divided into theory and practice.

Session 1933 for Men—conducted by Mr. Major (then Organiser of Physical Training for Manchester)

Session 1933 for Women (Seniors)—conducted by Miss MacLennan (Organiser of Physical Training for St. Helens)

Session 1933 for Women (Juniors)—ditto.

In addition both men and women teachers organised their own Refresher Courses.

In making appointments to the teaching staffs of central schools the Education Committee are endeavouring to ensure the presence on the staffs of men and women who are capable by training, and suitable by age, to conduct the physical training, together with other subjects, and some very successful appointments of this nature have been made during the past two years.

Swimming is now finding a definite place on the school time tables for senior pupils and next year the Education Committee propose to put the swimming arrangements on a more satisfactory basis, the intention being to give definite training to the age group 11-12 year-olds in each school.

The teachers have resuscitated the display of Physical Training and Folk Dancing at the Combined Annual School Sports which are held in the summer term.

In the secondary schools there are specialist teachers of physical training and at each school there is a gymnasium with the necessary equipment.

Physical training (including folk dancing for girls) is a popular subject in our Junior Evening Institutes and finds a place also in the curriculum of the Juvenile Instruction Centres for Unemployed Girls and Boys between 14 and 18 years of age.

ELEMENTARY SCHOOLS

MEDICAL INSPECTION AND TREATMENT

(A) INSPECTION

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

Council Schools	21		
Voluntary Schools	22	Total	43

The recognised accommodation of these schools was :

Council Schools	17,510		
Voluntary Schools	11,861	Total	29,371

The average number of scholars on the rolls was :

Council Schools	13,238		
Voluntary Schools	9,883	Total	23,121

The average attendance was:

Council Schools	11,803		
Voluntary Schools	8,637	Total	20,440

Children inspected.—The following elementary school children were medically inspected during the year:

1. At Routine Inspections	7046
2. At Special Inspections in the ordinary schools	170
3. At Routine Inspections at the Claughton Road Council School	67
4. Candidates for School and Holiday Camps	303
5. As prospective entrants to the Birkenhead Institute, the Girls' Secondary School, Park High School, Rock Ferry High School, Higher Tranmere High School for Girls, The Convent Secondary School, St. Francis Xavier's College and the Catholic Institute	380
6. Under the Employment of Children Bye-laws	49
Total	8015

Re-examination of defective children.—During the year 1,624 re-examinations of defective children were made in the schools by the Assistant Medical Officers.

Co-operation of parents, teachers and others.—Parents attended at the examination of 5,255 (74.6 per cent.) of the 7,046 children dealt with at routine inspections.

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

Year	Percentage
1924.....	62.9
1925.....	66.7
1926.....	68.1
1927.....	70.2
1928.....	71.2
1929.....	74.4
1930.....	76.4
1931.....	74.9
1932.....	73.2
1933.....	74.6

A considerable number of children is referred to the various clinics for examination, and any necessary treatment, by teachers, school attendance officers and such voluntary agencies as hospitals and the Invalid Children's Association.

Vaccination.—In the ordinary inspections children were examined as to vaccination marks. Of the 7,046 children examined

1895 (26.9%)	showed no marks
2769 (39.3%)	showed one mark.
647 (9.2%)	showed two marks.
180 (2.5%)	showed three marks
1555 (22.1%)	showed four or more marks

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

Year	Percentage
1924.....	78.9
1925.....	77.1
1926.....	76.6
1927.....	78.6
1928.....	79.3
1929.....	77.9
1930.....	76.8
1931.....	76.1
1932.....	74.6
1933.....	73.1

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:

Group	Height						Weight					
	Boys			Girls			Boys			Girls		
	No.	Feet	Ins.	No.	Feet	Ins.	No.	Lbs.	Ozs.	No.	Lbs.	Ozs.
Entrants	701	3	6.24	627	3	5.83	701	41	4.6	627	40	0.8
Intermediates ..	1040	3	11.61	1009	3	11.14	1040	51	6.7	1009	49	13.3
Leavers	907	4	6.33	1067	4	4.64	907	71	2.7	1067	71	6.2

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

Particulars of all cases of the important infectious diseases are supplied to the School Attendance Superintendent, so that regulations with regard to quarantine, etc., may be enforced.

In the event of several cases of diphtheria having occurred among children attending the same class, swabbing of the throats of the other children by the health nurses is carried out as a matter of routine, and biological virulence tests are made.

Defects found requiring medical or dental treatment.—Of the 7,216 children inspected at routine and special inspections, 624 were found to have defects requiring medical attention. The defects found were as follows :

	Code Groups	Special Cases
<i>Malnutrition</i>	2	5
<i>Skin Diseases</i>		
Ringworm	3	3
Scabies	2	2
Impetigo	7	4
Other diseases.....	3	4
<i>Eye Defects</i>		
Defective vision and squint	256	42
External eye disease	10	13
<i>Ear Defects</i>		
Defective hearing	5	3
Ear disease	18	5
<i>Nose and Throat Defects</i>		
Enlarged tonsils	37	6
Enlarged tonsils and adenoids	12	—
Adenoids	2	1
Other defects	6	4
<i>Teeth Defects</i>	113	3
<i>Heart and Circulation</i>		
Functional	7	1
<i>Pulmonary Tuberculosis</i>		
Suspected	1	—
<i>Non-Pulmonary Tuberculosis</i>		
Abdominal	1	—
<i>Other Defects or Diseases</i>	67	20

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

Particulars of the treatment provided for certain of these defects are given in the succeeding section.

Malnutrition.—The cause of malnutrition in any one case may be underfeeding, or faulty feeding, or both, or possibly neither. Though there are few children recorded as showing marked signs of malnutrition, it is highly probable that there is a large number whose diet is inadequate in quantity or unsuitable in quality. The effects of continuous underfeeding are cumulative, and may be expected to reveal themselves in an impaired resistance to disease and a general physical unfitness in later life.

(B) TREATMENT

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

During the past year the Health Nurses paid 757 visits to the homes of defective children in connection with "following up"—623 first visits and 134 re-visits; and 1,624 re-examinations of defective children were made by the Assistant Medical Officers. In addition, the Nurses paid 85 special visits.

Treatment of children found, at medical inspections held during 1933, to be suffering from defects which required medical attention.—As has been stated above, 624 out of 7,216 children examined at routine and special inspections in elementary schools during 1933 were found to be suffering from defects requiring medical attention. 341 children received treatment before the end of the year for defects found during this and the preceding year.

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

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

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

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

During the year 358 new cases were examined, 650 children attended for re-examination, and 467 pairs of spectacles were supplied. The total cost of all the spectacles which were ordered during the year (including those ordered for secondary school children) was £110 5s. 4d., of which the parents were required to pay £90 13s. 6d. The total sum collected during the year (including arrears from previous years) was £92 1s. 4d.

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	95
Hypermetropia	Myopic astigmatism	1

Hypermetropia	Hypermetropic astigmatism ...	5
Hypermetropic astigmatism	Hypermetropic astigmatism...	56
Hypermetropic astigmatism	Mixed astigmatism	4
Hypermetropic astigmatism	Myopia	1
Myopia	Myopia	60
Myopia	Normal	8
Myopia	Myopic astigmatism	2
Myopic astigmatism	Myopic astigmatism	7
Myopic astigmatism	Mixed astigmatism	3
Mixed astigmatism	Mixed astigmatism.....	1
Mixed astigmatism	Normal	1
		244

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

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

Corneal nebulae	6
Coloboma of iris and choroid.....	1
Coloboma of choroid	1
Optic atrophy	2
Ptosis	1
Injury	2
Amblyopia	28

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

Convergent: Right eye, 29; left eye, 36; alternating, 3.

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

The number of children who received treatment at the clinic was 2,169; the total attendances numbered 9,241.

Treatment of heart disease and rheumatism.—No arrangements are made by the Local Education Authority for the treatment of children suffering from heart disease and rheumatism. Urgent need exists for the provision of specialised institutional accommodation for such children; the provision made by voluntary organisations, while being excellent so far as it goes, cannot cope with the needs of the area. Dr. A. Dingwall Fordyce holds a weekly clinic at the Birkenhead and Wirral Children's Hospital to deal with cases of heart disease and rheumatism, and very willingly examines children referred to him by the Assistant Medical Officers.

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

1. *Examinations carried out at the clinic by the orthopædic surgeon.*—At the clinic the orthopædic surgeon has attended on 24 occasions during the year. The after-care sister made 85 attendances.

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

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

During 1933, 126 new cases were dealt with, as compared with 132 in the previous year:

Tuberculous cases	6
Non-tuberculous cases—	
Under school age	83
Of school age	37
Over school age	-
	126

There were 759 re-examinations made, as compared with 777 in 1932:

Tuberculous cases	66
Non-tuberculous cases—	
Under school age	292
Of school age	376
Over school age	25
	759

The average number of cases seen by the surgeon per session was 37.

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 1932	1933			Remaining at end of 1933			Discharges 1933					Died
		New cases						Cured	Relieved	Left district	Refused treatment	Unsuitable	
		School age			School age								
		Under	Of	Over	Under	Of	Over						
Infantile Paralysis	31	1	3	...	4	26	1	...	2	...	2	...	...
Spastic Paralysis	20	4	4	...	4	14	1	...	4	1	2	1	1
Rickets	89	39	2	..	58	30	..	31	2	3	4	1	1
Osteitis and Arthritis :													
(a) Tuberculous	37	...	6	...	3	27	4	4	2	2	..	...	3
(b) Non-Tuberculous ..	2	1	4	...	1	2	...	3	...	...	..	1	...
Congenital Deform. ..	27	5	2	...	13	15	1	1	2	1	1	...	...
Acquired Deform.....	60	9	14	...	13	31	...	30	3	1	5	...	...
Diagnosis	16	24	8	...	12	3	...	...	...	...	...	31	...
Totals.....	282	83	43	...	108	148	7	69	15	8	14	34	5

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	57
Non-tuberculous cases—	
Under school age	466
Of school age	2621
Over school age	140

In addition to the above, 2,317 attendances were made by non-clinic cases (that is to say, cases sent to the Association by orthopædic surgeons attached to voluntary hospitals, etc.).

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

Clinic cases	108
Non-clinic cases	102

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:

	179	182
Children supplied with milk	69	83
Children supplied with tonics	Clinic	Non-clinic
Children sent to convalescent homes and country	cases	cases
hospitals	214	770

5. *Children's Hospital, Leasowe.*—Of the 408 cases that have been on the register of the orthopædic clinic and regarded as suitable for treatment during the past year, 40 (or 10%) required hospital treatment and were admitted to the Children's Hospital, Leasowe. These cases comprise :

	Cases	Stay in Hospital	
		Days	
		Min.	Max.
Rickets	27	42	192
Congenital deformities	6	28	115
Acquired deformities	5	18	124
Spastic paralysis	1	26	26
Infantile paralysis	1	35	35

The total number of days in hospital was 2,533 (6.9 beds occupied throughout the year).

In addition to the above, 19 cases were referred to the hospital for X-Rays examination, and 2 for the application of plaster of Paris splints.

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

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

At the North Health Clinic a total of 26 children of school age made 439 attendances during the year. The types of case and results of treatment are as follows:

	Improved	Not Improved	Still under treatment at end of year
Debility	2	1	1
Tuberculosis	12	1	3
Other conditions	8	2	1
Total	22	4	4

At the Invalid Children's Association premises, 14 children of school age made 325 attendances during the year:

	Improved	Not Improved	Still under treatment at end of year
Rickets	1	1	2
Debility	5	3	3
Alopecia	1	—	—
Tuberculosis	2	1	2
Total	9	5	7

In addition 560 attendances were made by children below and above school age.

Treatment of enlarged tonsils and adenoids.—Operations were performed at the Birkenhead Infirmary upon 159 children under the Committee's scheme for the provision of this treatment.

The charge for treatment is 10/6. This sum may be paid by instalments, or reduced or remitted at the discretion of the Committee.

The parents of all children who have had tonsils and adenoids removed are advised to send them for a course of instruction to the nose breathing classes. 77 children (nearly 50%) of those who had been operated upon attended these classes, making a total of 222 attendances.

Treatment of uncleanliness.—The average number of visits paid during 1933 by the Health Nurses to each school in the Borough was 17; the total examinations numbering 77,773.

The number of individual children found by the Health Nurses to require attention was 2,874, as compared with 3,791 in 1932. In every case the parents were informed. In 6 cases of persistent neglect notices were served on the parents. The Nurses paid 45 visits to the homes of children (41 first visits, 4 re-visits).

A large proportion of the children reported as "requiring attention" was cases where only a few nits were present. The standard of cleanliness has improved greatly in recent years.

DENTAL INSPECTION AND TREATMENT

(A) INSPECTION

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

Number inspected.—10,750 children were dentally inspected during the year as follows:

Aged six years	960
Aged seven years	1708
Aged eight years	1630
Aged nine years	1549
Aged ten years	1566
Aged eleven years	1388
Aged twelve years	1181
Aged thirteen years	768
	10750

Number requiring dental treatment.—Of the 10,750 children inspected, 8,072 (75.1%) were selected as requiring treatment, the parents being advised to obtain this treatment privately, or, if unable to do this, at the Dental Clinic.

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

Clean	5920
Fairly clean	3831
Dirty	999
	10750

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

Gums healthy	8399
Gums inflamed	1468
Gums septic	883
	10750

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

Bite good	7199
Bite fair	2799
Bite bad	852
	10750

(B) TREATMENT

Notices were sent to the parents of the 8,072 children found to require dental treatment, with the following results :

Refused to have treatment done or did not reply...	651	(8.1%)
Stated that treatment would be obtained privately...	1437	(17.8%)
Requested treatment at the Dental Clinic	5984	(74.1%)
	8072	

Treatment at the Dental Clinic.—Of the 5,984 children for whom treatment at the clinic was requested

4788 were treated before the end of the year
 954 did not attend when sent for
 242 were awaiting treatment at the end of the year

5984

Besides the above 4,788 children treated at the clinic following on inspections held in 1933, the following also received treatment: 355 who had been inspected in 1932 and had not been treated before the end of that year, 2,191 who were brought by parents on their own initiative, and 11 special cases. The total number of children treated at the clinic during 1933 was therefore:

Following on 1932 inspections	355
Following on 1933 inspections	4788
Brought by parents on their own initiative	2191
Special cases	11
	7345

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

Temporary teeth filled	57
Temporary teeth extracted	7317
Permanent teeth filled	4360
Permanent teeth extracted	1969
Total fillings	4417
Total extractions	9286
Anæsthetics—general	271
local	5077
Dressings	889
Scalings	1998

The total number of attendances at the clinic numbered 8,975 and the number of treatments completed during the year was 6,827. 1,757 parents paid 1s. each and 102 parents 6d. each for treatment, the total amount paid being £90 8s. 0d.

SECONDARY SCHOOLS AND CONTINUATION SCHOOLS

MEDICAL INSPECTION AND TREATMENT

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

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

	No. on Roll
(a) Provided by the Local Education Authority—	
The Birkenhead Institute (Boys)	469
The Girls' Secondary School	397
Rock Ferry High School (Boys)	367
Park High School (Boys)	325
(b) Not provided by the Local Education Authority—	
The Higher Tranmere High School for Girls...	241
The Convent Secondary School	270

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

(A) INSPECTION

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

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

Birkenhead Institute.—At the annual inspection 381 boys were inspected. 28 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	11
Defective vision	17

Girls' Secondary School.—At the annual inspection 382 girls were inspected. 30 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	15
Defective vision	10
Heart defects	2
Nose and throat defect	1
Skin defect	1
Deformity	1

Rock Ferry High School.—At the annual inspection 338 boys were inspected. 48 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	19
Defective vision	32
Ear defect	1

Park High School.—At the annual inspection 313 boys were inspected. 34 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	12
Defective vision	22

Higher Tranmere High School for Girls.—At the annual inspection 92 girls were inspected. 3 were found to have defects requiring dental advice.

Convent F.C.J.—At the annual inspection 159 children were inspected. 28 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	26
Defective vision	4

(B) TREATMENT

Treatment of certain defects is provided, as in the case of children attending public elementary schools, for the children of those parents who are not in a position to obtain it privately.

Below are set out particulars relating to treatment provided for secondary school children.

Treatment at the General School Clinic.—4 children received treatment for minor ailments, their attendances numbering 7.

Treatment at the Eye Clinic.—74 children were submitted to refraction at the Eye Clinic. Of these, 68 were found to have visual defects, spectacles being prescribed and supplied in each case (39 of these children attended for renewal or alteration of spectacles previously obtained through the clinic).

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	Hypermetropic astigmatism ...	1
Myopia	Myopia	21
Myopia	Mixed astigmatism	2
Myopia	Hypermetropic astigmatism ...	1
Mixed astigmatism	Mixed astigmatism	2
Mixed astigmatism	Hypermetropia	1
		29

The high incidence of myopia is to be noted.

(C) DENTAL TREATMENT

Dental inspection is not carried out in secondary schools; but dental treatment is provided for those children who have been inspected and treated while in attendance at elementary schools.

33 of such children received dental treatment during the year, making 72 attendances at the clinic.

BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN

Children defective within the meaning of Part V of the Education Act are ascertained as a result of routine and special inspections in schools and reference for examination by School Attendance Officers, Health Nurses, voluntary bodies, etc. Such children are certified on the appropriate forms prescribed by the Board of Education and notification sent to the Director of Education.

Blind children.—(1) *Totally blind children.*—At the beginning of 1933 there were 7 totally blind children of school age on the register. During the year the names of 4 children were removed (1 child being decertified, and 3 children on reaching the age of sixteen) and the name of 1 child was added, leaving 4 at the end of the year. Of these 4 children, 2 were in attendance at certified schools for the blind, and 2 were awaiting admission.

(2) *Partially blind children.*—At the beginning of 1933 there were 41 partially blind children of school age on the register. During the year the name of 1 child was taken off (on account of the child's removal from the town), and 13 new cases were added. Of these

children 4 boys and 8 girls were attending ordinary schools, and 4 boys and 1 girl were not in attendance at any school (3 boys and 1 girl on leave of absence from the myope class, 1 boy feeble-minded). 19 boys and 17 girls were in attendance at the myope class held at Hemingford Street Council School.

Myopia	7
Myopic astigmatism	24
Myopic astigmatism and microphthalmos.....	1
Corneal nebulae	9
Hypermetropic astigmatism and nystagmus	4
Hypermetropia and nystagmus	2
Congenital cataract	1
Optic atrophy	3
Coloboma iris and choroid	1
Nystagmus (albino)	1
	—
	53
	—

Of the 26 children in the myopic group who were on the register in 1932, and who were re-examined during 1933, the visual condition of 6 had grown worse.

Deaf children.—(1) *Totally deaf children.*—There is little difficulty in providing institutional treatment for totally deaf children, all the existing cases being accommodated at one or other of the two Schools for the Deaf in Liverpool.

(2) *Partially deaf children.*—No provision is made for the special education of partially deaf children.

Physically defective children.—The Local Education Authority has no special school for dealing with children who by reason of physical defect are incapable of receiving proper benefit from the instruction in an ordinary public elementary school.

Mentally defective children.—All children over the age of seven attending public elementary schools have their intelligence quotients made out by the teachers. Where a quotient is 75 per cent. or below, the child's name is submitted to the Director of Education so that arrangements may be made for the child's examination by an Assistant Medical Officer; the same procedure being followed when, during the course of a routine or special physical examination, a child is suspected by an Assistant Medical Officer to be mentally defective.

The mental examination is held in the child's school in the presence of the parent and the Committee's Inspector of Schools.

All children mentally defective within the meaning of the Education Act are in attendance at special schools.

Cloughton Road Council School.—In accordance with the arrangements for ascertainment outlined above, 55 examinations of children suspected to be mentally defective were held at various schools during the year by the Assistant Medical Officers. 2 children, who were not in attendance at school, were examined at the clinic. The results of these examinations are set out below:

Total number examined—Boys	33
Girls	24
	— 57

Number certified as mentally defective—Boys	13*
Girls	13
	— 26
Number recommended to continue in attendance at ordinary Elementary Schools—Boys	20
Girls	11
	— 31

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

10 children left the school during the year

(a) on reaching the age of 16 years	6*
(b) before reaching the age of 16 years—	
Fit for work	3
Left the district	1

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

Of the 3 children who left to take up work

- 1 is employed in a coalyard
- 1 is employed as an errand boy
- 1 is employed as an apprentice plasterer

A routine physical inspection of scholars attending the school was carried out. 67 children were examined, of whom 11 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	8
Defective vision	2
Nose and throat defect	1
Nervous system	1

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

Daily average supplied	54
Total cost for the year	£90

The weekly menu was :

Monday.....Soup; rice pudding.
Tuesday.....Meat and vegetable stew; baked fruit pudding.
Wednesday...Meat pie and vegetables.
Thursday....Hotpot; rice pudding.
Friday.....Vegetable stew with dumplings.

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

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

HEALTH EDUCATION

During the year a number of talks has been given by Health Nurses to senior girls on hygiene, mothercraft, etc.

NURSERY SCHOOLS

No Nursery Schools are provided by the Local Education Authority.

MISCELLANEOUS

Examination of entrants to the Girls' Secondary School, the Birkenhead Institute, Park High School, Rock Ferry High School, Higher Tranmere High School for Girls, The Convent Secondary School, St. Francis Xavier's College, and the Catholic Institute.—

During the year 385 elementary school children were examined with a view to their admission to the above schools. 56 were found to require treatment for 58 defects, the latter being as follows:

Defective teeth	29
Defective vision	27
Nose and throat defect	1
Other defect	1

Classes for stammering children.—Three examinations were made, covering a total of 53 children, with a view to admission to or withdrawal from these classes.

Children and Young Persons Act, 1933.—19 children summoned to appear before Police Courts were examined in accordance with the provisions of this Act

Provision of meals.—An average number of 1,019 children received meals each day, the total number of meals provided during the year being 258,867. Meals were supplied five days per week, with the exception of Bank and Public Holidays.

Children in receipt of meals are generally selected by the School Attendance staff; but particulars of children who in the opinion of the medical or nursing staff would appear to benefit by the provision of free meals are referred for consideration to the Education Office.

ELEMENTARY SCHOOLS

TABLE S 1.

Return of Medical Inspections during 1933
(see note a)

A.—ROUTINE MEDICAL INSPECTIONS

Number of inspections in the prescribed groups (see note b)—

Entrants	2313
Second age group	2248
Third age group	2485
Total	7046

Number of other routine inspections (see note c) —

B.—OTHER INSPECTIONS

Number of special inspections (see note d)	3411
Number of re-inspections (see note e)	4622
Total	8033

NOTES ON TABLE S 1

- (a) The return refers to a complete calendar year.
- (b) This heading relates solely to the routine medical inspection of the three ordinary age groups, *i.e.*, to medical 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 may be 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 Table 1 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.

NOTES ON TABLE S 1—Continued

(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.

TABLE S 2

A.—Return of Defects found by Medical Inspection during the year ended 31st December, 1933

Defect or disease (1)	Routine Inspections		Special Inspections	
	No. of defects		No. of defects	
	Requiring treatment (2)	Requiring to be kept under observation, but not requiring treatment (3)	Requiring treatment (4)	Requiring to be kept under observation but not requiring treatment (5)
<i>Malnutrition</i>	2	14	5	—
<i>Skin</i> Ringworm—Scalp	2	—	24	—
..... Body	1	—	36	—
..... Scabies	2	—	38	—
..... Impetigo	7	—	247	—
..... Other diseases (non-tuberculous)	3	1	177	—
<i>Eye</i> Blepharitis	4	3	82	—
..... Conjunctivitis	4	2	133	—
..... Keratitis	—	—	1	—
..... Corneal opacities	2	1	5	—
..... Defective vision (excluding squint)	224	124	73	7
..... Squint	32	5	16	—
..... Other conditions	—	1	69	—
<i>Ear</i> Defective hearing	5	5	29	1
..... Otitis media	15	9	109	—
..... Other ear diseases	3	—	45	—
<i>Nose and throat</i> Chronic tonsillitis only	37	38	226	3
..... Adenoids only	2	14	9	—
..... Chronic tonsillitis and adenoids	12	22	12	1
..... Other conditions	6	—	276	—
<i>Enlarged cervical glands (non-tuberculous)</i>	3	10	17	1
<i>Defective speech</i>	—	2	3	—
<i>Heart and circulation</i> —				
..... Heart disease—Organic	—	1	2	—
..... Functional	7	48	12	—
..... Anaemia	4	20	15	—
<i>Lungs</i> Bronchitis	3	24	58	—
..... Other non-tuberculous diseases	2	2	101	—
<i>Tuberculosis</i> ... Pulmonary—Definite	—	—	—	—
..... Suspected	1	4	2	—
..... Non-pulmonary—Glands	—	—	—	—
..... Bones and joints	—	2	—	—
..... Skin	—	—	—	—
..... Other forms	1	2	3	—
<i>Nervous system</i> .. Epilepsy	1	1	1	—
..... Chorea	—	4	7	1
..... Other conditions	—	2	16	—
<i>Deformities</i> Rickets	3	—	—	—
..... Spinal curvature	1	2	—	—
..... Other forms	3	1	4	—
<i>Other defects and diseases (excluding Uncleanliness and Dental Diseases)</i>	47	43	1475	1

TABLE S 2—Continued

B.—Number of *individual children* (see note *a*) found at *Routine Medical Inspection* to require treatment (excluding uncleanliness and dental diseases)

Group (1)	Number of children		Percentage of children found to require treatment (see note c) (4)
	Inspected (see note b) (2)	Found to require treatment (3)	
PRESCRIBED GROUPS:			
Entrants	2313	87	3·8
Second Age Group	2248	135	6·0
Third Age Group	2485	188	7·6
Total (Prescribed Groups) ...	7046	410	5·8
Other routine inspections	—	—	—

NOTES ON TABLE S 2

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

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

(*c*) The figures in this column are the percentages of the figures in column (3) of those in column (2).

TABLE S 3

Return of all exceptional children in the area

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

CHILDREN SUFFERING FROM MULTIPLE DEFECTS

Mental defect and crippling 1

BLIND CHILDREN

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

In this section are included only children who are so blind that they can only be appropriately taught in a school for blind children.

At Certified Schools for the Blind	At Public Elementary Schools	At Other Institutions.	At no School or Institution	Total
2	—	—	2	4

PARTIALLY BLIND 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 blind.

At Certified Schools for the Blind	At Certified Schools for the Partially Blind	At Public Elementary Schools	At Other Institutions	At no School or Institution	Total
—	36	12	—	5	53

DEAF CHILDREN

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

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

At Certified Schools for the Deaf	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
19	—	—	—	19

TABLE S 3—Continued

PARTIALLY DEAF CHILDREN

In this section are included only children who can appropriately be taught 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

FEEBLE-MINDED 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.

This category includes only those children for whose education and maintenance the Local Education Authority are responsible, and excludes all children who have been notified to the Local Authority under the Mental Deficiency Act.

At Certified Schools for Mentally Defective Children	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
76	—	—	—	76

EPILEPTIC CHILDREN

CHILDREN SUFFERING FROM SEVERE EPILEPSY

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
3	—	1	3	7

TABLE S 3—Continued

PHYSICALLY DEFECTIVE CHILDREN

Physically defective children are children who, by reason of physical defect, are incapable of receiving proper benefit from the instruction in the ordinary public elementary schools, but are not incapable by reason of that defect of receiving benefit from instruction in special schools for physically defective children.

A.—TUBERCULOUS CHILDREN

In this category are placed only cases diagnosed as tuberculous and requiring treatment for tuberculosis at a sanatorium, a dispensary, or elsewhere. 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 is such as to interfere materially with a child's normal mode of life. All other cases of tuberculosis regarded as being no longer in need of treatment are recorded as delicate children.

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	36	3	4	45

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
33	228	—	8	269

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 that they are incapable by reason of physical defect of receiving proper benefit from the instruction in the ordinary Public Elementary Schools.

TABLE S 3—Continued

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
1	56	1	1	59

C.—CRIPPLED CHILDREN

This section is confined to children (other than those diagnosed as tuberculous 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.

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
—	16	—	1	17

D.—CHILDREN WITH HEART DISEASE

This section is confined to children whose defect is so severe as to necessitate the provision of educational facilities other than those of the Public Elementary School.

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
—	28	3	7	38

TABLE S 4

Return of Defects treated during the year ended 31st December, 1933
(see note a)

TREATMENT TABLE

GROUP I.—MINOR AILMENTS (excluding Uncleanliness, for which
see Group VI.)

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</i> —Ringworm—scalp	21	—	21
body	35	—	35
Scabies	36	1	37
Impetigo.....	243	—	243
Other skin diseases	164	—	164
<i>Minor eye defects</i>	267	2	269
(external and other, but excluding cases falling in Group II.)			
<i>Minor ear defects</i>	163	3	166
(see note c)			
<i>Miscellaneous</i>	1102	8	1110
(e.g., minor injuries, bruises, sores, chil- blains, &c.)			
Total ..	2031	14	2045

GROUP II.—DEFECTIVE VISION AND SQUINT (excluding Minor Eye
Defects treated as Minor Ailments—Group I.)

Defect or disease (1)	Number of defects dealt with			
	Under the Authority's scheme (see note b) (2)	By private prac- titioner or at hospital, apart from the Authority's scheme (3)	Otherwise (4)	Total (5)
Errors of refraction (including squint) (operations for squint should be recorded separately in the body of the School Medical Officer's report)	626	5	—	631
Other defect or disease of the eyes (excluding those re- corded in Group I).....	15	—	—	15
Total.....	641	5	—	646

TABLE S 4—Continued

Total number of children for whom spectacles were prescribed—

(a) Under the Authority's scheme	590
(b) Otherwise	5

Total number of children who obtained or received spectacles—

(a) Under the Authority's scheme	473
(b) Otherwise	5

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 <i>b</i> , (1))				By private practitioner or hospital, apart from the Authority's scheme (2)				Total (3)					
(ii)	(iii)	(iv)		(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)		
-	-	159	-	2	-	2	-	2	-	161	-		
												218	381

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and adenoids.
 (iv) Other defects of the nose and throat.

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

	Under the Authority's Scheme (<i>see note b</i>) (1)			Otherwise (2)			Total number treated (<i>see note e</i>)
	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	
	(i)	(ii)	(iii)	(i)	(ii)	(iii)	
Number of children treated	13	—	263	—	—	—	276

GROUP V.—DENTAL DEFECTS

(1) Number of children who were:—

(i) Inspected by the Dentist:

Routine age groups—

aged 6	960
aged 7	1708
aged 8	1630
aged 9	1549
aged 10	1566
aged 11	1388
aged 12	1181
aged 13	768

10750

Specials (*see note f*)

13

Total —10763

(ii) Found to require treatment

8072

(iii) Actually treated

7345

TABLE S 4—Continued

(2) Half-days devoted to—		
Inspection	122	
Treatment	1131	
	Total	1253
(3) Attendances made by children for treatment		8975
(4) Fillings (<i>see note g</i>)—Permanent teeth	4360	
Temporary teeth	57	
	Total	4417
(5) Extractions—Permanent teeth	1969	
Temporary teeth	7317	
	Total	9286
(6) Administrations of general anæsthetics for extractions.....		271
(7) Other operations—Permanent teeth	807	
Temporary teeth	82	
	Total	889

GROUP VI.—UNCLEANLINESS AND VERMINOUS CONDITIONS

(see note h)

(i) Average number of visits per school made during the year by the School Nurses	17
(ii) Total number of examinations of children in the Schools by School Nurses	77773
(iii) Number of individual children found unclean (<i>see note h</i>)	2874
(iv) Number of children cleansed under arrangements made by the Local Education Authority	—
(v) Number of cases in which legal proceedings were taken:—	
(a) Under the Education Act, 1921	—
(b) Under School Attendance Byelaws	—

NOTES ON TABLE S 4

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

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

(c) If any treatment is given for more serious diseases of the ear (*e.g.*, operative treatment in hospital) it is not recorded here but in the body of the Report.

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

NOTES ON TABLE S 4 -Continued

(c) 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.

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

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

(h) (i) All cases of uncleanliness however slight, are recorded.

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

N.B.—Groups I—VI. above cover all the defects for which treatment is normally provided as part of the School Medical Service. Particulars as to the measures adopted by the Authority for providing treatment for other types of defect or for securing improvement in types of defect which do not fall to be treated under the Authority's own scheme and for which the Authority neither incur expenditure nor accept any responsibility, together with a statement of the effect of the measures taken, are included in the body of the School Medical Officer's Report.

TABLE S 6

Past Infectious Diseases

(1) Children aged 3—7

	No. of Cases	Percentage
No Infectious Disease	430	18.6
Measles	1653	71.4
Whooping Cough	968	41.7
Scarlet Fever	55	2.4
Diphtheria	53	2.3
Chicken Pox	551	23.8
Mumps	302	13.8

(2) Children aged 8—14

	No. of Cases	Percentage
No Infectious Disease	207	4.4
Measles	4277	90.5
Whooping Cough	2827	59.9
Scarlet Fever	323	6.8
Diphtheria	196	4.2
Chicken Pox	2352	49.9
Mumps	1525	32.4

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

SECONDARY SCHOOLS

TABLE S 7

Return of Medical Inspections during 1933

A.—ROUTINE MEDICAL INSPECTIONS

Number of Inspections 1910

B.—OTHER INSPECTIONS

Number of Special Inspections 4

TABLE S 8

A. Return of Defects found by Medical Inspection in the year ended
31st December, 1933

Defect or disease	Routine Inspections		Special Inspection	
	No. of Defects		No. of Defects	
	Requiring treatment	Requiring to be kept under observation, but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
(1)	(2)	(3)	(4)	(5)
Scabies	1	—	—	—
Impetigo	—	—	1	—
Conjunctivitis	—	—	1	—
Defective Vision (excluding squint)	101	4	—	—
Otitis Media	1	—	1	—
Chronic Tonsillitis and Adenoids	1	—	—	—
Defective Speech	—	1	—	—
Heart and Circulation :				
Heart Disease—Organic	1	—	—	—
Functional	1	5	—	—
Non-Tuberculous Diseases of the Lungs (other than Bronchitis).....	—	1	—	—
Deformities other than Rickets	1	—	—	—
Other defects and diseases excluding uncleanness and dental diseases	1	—	1	—

B. Number of *individual children* found at *Routine Medical Inspection* to require treatment (excluding Uncleanness and Dental Diseases)

Number of children		Percentage of children found to require treatment
Inspected	Found to require treatment	
1910	101	5.3

TABLE S 9

Return of Defects treated during the year ended 31st December, 1933

TREATMENT TABLE

GROUP I.—MINOR AILMENTS

Disease or defect (1)	Number of defects treated or under treatment during the year		
	Under the Authority's scheme (2)	Otherwise (3)	Total (4)
<i>Skin</i> —Scabies	—	1	1
Impetigo.....	1	—	1
<i>Minor Eye Defects</i>	1	—	1
(external and other, but excluding cases falling in Group II.)			
<i>Minor Ear Defects</i>	1	—	1
<i>Miscellaneous</i>	1	—	1
(e.g., minor injuries, bruises, sores, chilblains, &c.)			
Total.....	4	1	5

GROUP II.—DEFECTIVE VISION AND SQUINT (excluding Minor Eye Defects treated as Minor Ailments—Group I.)

Defect or disease (1)	No. of defects dealt with			
	Under the Authority's scheme (2)	By private practitioner or at hospital, apart from the Authority's scheme (3)	Otherwise (4)	Total (5)
Errors of Refraction (including squint)	68	27	—	95

Total number of children for whom spectacles were prescribed—

(a) Under the Authority's scheme	68
(b) Otherwise	27

Total number of children who obtained or received spectacles—

(a) Under the Authority's scheme	63
(b) Otherwise	27

TABLE S 9—Continued

GROUP III.—TREATMENT OF DEFECTS OF NOSE AND THROAT

Number of defects													
Received operative treatment												Received other forms of treatment	Total number treated
Under the Authority's scheme in clinic or hospital				By private practitioner or hospital, apart from the Authority's scheme				Total					
(1)				(2)				(3)					
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)		
-	-	-	-	-	-	1	-	-	-	1	-	—	1

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and adenoids.
 (iv) Other defects of the nose and throat.

GROUP IV.—ORTHOPÆDIC AND POSTURAL DEFECTS

	Under the Authority's Scheme			Otherwise			Total number treated
	(1)			(2)			
	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)		(i)	(ii)		
Number of children treated	—	—	1	—	—	—	1

GROUP V.—DENTAL DEFECTS

(1) Treated	33
(2) Attendances made by children for treatment	72
(3) Fillings—Permanent teeth	101
Temporary teeth	—
Total.....	101
(4) Extractions—Permanent teeth	18
Temporary teeth	12
Total.....	30
(5) Administrations of general anæsthetics for extractions	4

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1. The first part of the report is a general introduction to the subject matter.

2. The second part of the report is a detailed description of the methods used in the study.

3. The third part of the report is a discussion of the results of the study.

4. The fourth part of the report is a conclusion and summary of the findings.

5. The fifth part of the report is a list of references and sources.

6. The sixth part of the report is a list of appendices and supplementary material.

7. The seventh part of the report is a list of figures and tables.

8. The eighth part of the report is a list of footnotes and endnotes.