[Report 1931] / Medical Officer of Health, Bradford City / County Borough.

Contributors

Bradford (West Yorkshire, England). Metropolitan District Council.

Publication/Creation

1931

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CITY OF BRADFORD

ANNUAL REPORT

OF THE

MEDICAL OFFICER

1931

IDLE, BRADFORD:
WATMOUGHS LIMITED, PRINTERS

P4386—300 (529)

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PREFACE.

The following report on the health of the City has been compiled along the lines laid down in the Memorandum of the Ministry of Health.

The chief vital statistics for the year 1931 were :—

Estimated population	...	300,900
Birth-rate	...	13·56 per 1,000 of population
Death-rate	...	14·21 per 1,000 ,, ,,
Zymotic death-rate	...	0·24 per 1,000 ,, ,,
Tuberculosis death-rate	...	0·93 per 1,000 ,, ,,
Infantile mortality rate	...	71 per 1,000 births

As compared with 1930 these figures show a decrease of 1·36 per 1,000 in the birth-rate and an increase of 0·76 in the death-rate. There was a decrease of 0·20 in the zymotic death-rate, and an increase of 0·03 in the tuberculosis death-rate, while the infantile mortality showed a decrease of 4.

JOHN J. BUCHAN,
Medical Officer of Health.

TOWN HALL, BRADFORD,
31*st July*, 1932.

I.—VITAL STATISTICS.

Area and Population. The City of Bradford has an area of 24,342 acres, and the population as adjusted by the Registrar General for the middle of 1931 is 300,900.

DISTRIBUTION AND DENSITY OF POPULATION.

Wards	Estimated Population, 1931	Area of Wards in Acres	Persons per Acre
Allerton	16,365	2,864	5·7
Bolton	10,685	1,001	10.7
Bradford Moor	24,166	680	35·5
Clayton	5,592	1,462	3·8
East	15,344	385	39·9
East Bowling	16,439	565	29·1
Eccleshill	14,502	1,221	11·9
Exchange	2,670	118	22·6
Great Horton	24,097	1,289	18·7
Heaton	16,944	883	19·2
Idle	9,347	1,693	5·5
Listerhills	14,510	321	45·2
Little Horton	15;762	425	37·1
Manningham	21,931	449	48.8
North	10,691	353	30.3
North Bierley East	14,237	2,419	5·9
North Bierley West	12,338	1,836	6·6
South	13,221	303	43·6
Thornton	6,081	2,251	2·7
Tong	6,896	2,659	2·6
West	8,851	162	54·6
West Bowling	20,231	1,003	20·1
City	300,900	24,342	12·4

The average density of population varies from 2·6 persons per acre in Tong Ward to 54·6 in the West Ward.

Births. The number of births registered during the year was 4,081, of which 2,061 were males and 2,020 females. This gives a birth-rate for the year of 13·56 per 1,000, a decrease of 1·36 per 1,000 from last year.

AVERAGE QUINQUENNIAL BIRTH-RATES FROM 1871.

1871-75 ...	39·0	1896-1900...	25·1	1921-25 ...	17·9
1876-80 ...	35·6	1901-05 ...	22·6	1926-30 ...	15·2
1881-85 ...	31·1	1906-10 ...	20·1	1931 ...	13·6
1886-90 ...	29·8	1911-15 ...	19·0		
1891-95 ...	27·5	1916-20 ...	15·4		

Illegitimacy. Of the 4,081 births registered, 245 or 6·0 per cent., were illegitimate. This rate is 0·1 per cent. higher than in 1930.

Deaths. The total deaths occurring in Bradford in 1931 was 4,437; after making additions and deductions of persons dying away from their place of residence the number becomes 4,277. The corrected death-rate is therefore 14·21 per 1,000, or 0·76 per 1,000 higher than in 1930.

AVERAGE QUINQUENNIAL DEATH-RATES FROM 1871.

1871-75 ...	25·9	1896-1900...	17·9	1921-25 ...	14·1
1876-80 ...	22·3	1901-05 ...	16·3	1926-30 ...	14·2
1881-85 ...	19·9	1906-10 ...	15·1	1931 ...	14·2
1886-90 ...	20·9	1911-15 ...	15·5		
1891-95 ...	19·7	1916-20 ...	16·0		

The death-rate among the male population in 1931 was 15·11, and among the female population 13·45 per 1,000.

The birth and death-rates in the various wards of the city are set out in the table on page 7.

Birth and Death Rate in Each Ward.

Ward	Number		Rates per 1000	
	Births	Deaths	Births	Deaths
Allerton	191	198	11·67	12·10
Bolton	156	142	14·60	13·29
Bradford Moor... ...	296	296	12·25	12·25
Clayton...	81	83	14·49	14·84
East	235	205	15·32	13·36
East Bowling	232	242	14·11	14·72
Eccleshill	200	183	13·79	12·62
Exchange	58	40	21·72	14·98
Great Horton	256	316	10·62	13·11
Heaton	160	225	8·26	13·28
Idle	125	116	13·37	12·41
Listerhills	256	240	17·82	16·54
Little Horton	169	241	10·79	15·29
Manningham	333	288	15·19	13·13
North	186	186	17·40	17·40
North Bierley East ...	223	208	15·66	14·61
North Bierley West ...	159	204	12·89	16·53
South	245	247	18·46	18·68
Thornton	81	89	13·32	14·63
Tong	94	101	13·63	14·65
West	112	165	12·65	18·64
West Bowling	233	262	11·52	12·95
City	4,081	4,277	13·56	14·21

Mortality at Different Ages. The following Table shows the total deaths in each age group during the past six years.

NUMBER OF DEATHS IN EACH YEAR AT DIFFERENT AGE PERIODS.

Age	1926	1927	1928	1929	1930	1931
Under 1 year	435	404	307	346	327	292
1— 2 years	81	111	59	114	67	61
2— 5 ,,	66	106	53	88	62	57
5—15 ,,	72	99	84	102	85	80
15—25 ,,	123	119	137	131	122	112
25—45 ,,	435	473	421	439	396	420
45—65 ,,	1142	1255	1180	1342	1203	1260
over 65 ,,	1567	1704	1684	1966	1758	1995

The infantile mortality rate for 1931 was 71 per 1,000 births, as against 75 for 1930. The mortality between one and sixty-five years was 7·2 per 1,000, and over sixty-five years 113·2 per 1,000.

Public Institutions. The accommodation in all kinds of institutions available for Bradford amounts to more than 3,500 beds or 1·2 per cent. of the population or about 1 in 80.

Voluntary Hospitals, 1931.

Hospital	Number of beds	Character of cases	Cases admitted to Hospital	Cases treated in outdoor departments
Bradford Royal Infirmary ...	215	General ...	4,989	16,089*
Bradford Children's Hospital	74	Children ...	1,726	3,456
Royal Eye and Ear Hospital...	94	Eye and Ear	3,548	11,432
Totals	383	—	10,263	30,977

* Exclusive of dental cases.

At the out-patient department of the Bradford Royal Infirmary 10,167 persons were treated as out-patients, and 5,922 as casualty cases, and 1,012 as dental cases. The number of attendances made by out-patients was 62,106, and by casualty cases 29,772. At the orthopædic department 62,249 treatments were given.

The total number of patients admitted to municipal hospitals in 1931 was 9,715. The nature of the cases is given elsewhere in this report in dealing with each hospital. On the 31st December, 1931, there were 191 patients maintained in institutions for the mentally defective.

At the end of the year the number of persons in receipt of relief in Bradford was: Institutional, 1,264, and Domiciliary, 7,164, equal to 28·3 per 1,000 of the population.

Proportion per 1,000 of Population in Receipt of Relief.

	Indoor	Outdoor	Total Chargeable
England and Wales	4·9	22·6	27·5
Bradford	4·2	24·1	28·3

The number of deaths in public institutions is given in the tables on pages 10 and 11.

Deaths in Public Institutions.

Name of Institution	1929	1930	1931
Bradford Public Assistance Institutions	82	73	101
Clayton Public Assistance Institution	64	56	21
Other Public Assistance Institutions	5	6	2
Menston Asylum	52	37	24
Storthes Hall Asylum	12	30	38
Other Asylums	6	4	5
Royal Infirmary	197	181	174
Duke of York Home	—	—	27
Children's Hospital	76	76	62
Eye and Ear Hospital	13	11	12
St. Catherine's Home	11	8	4
Other Voluntary Hospitals ...	22	13	18
St. Luke's Hospital	967	914	940
Leeds Road Hospital	70	41	45
Bierley Hall Hospital	42	34	35
Grassington Sanatorium ...	4	5	9
North Bierley Joint Hospital ...	2	—	1
Calverley Joint Hospital... ...	1	2	—
Other Institutions	5	5	3
Total	1,631	1,496	1,521

It will be noted that in 1931, 124 deaths, or 2·9 per cent. of the total deaths, occurred in Public Assistance Institutions; 67 deaths, or 1·6 per cent., in Lunatic Asylums; 297 deaths, or 6·9 per cent., in Voluntary Hospitals; and 1,030 deaths, or 24·1 per cent., in Municipal Hospitals.

The percentage of the total deaths in the city occurring in public institutions in 1931 was 35·6.

The age incidence of deaths in Public Institutions is shown in the following Table :—

	Public Assistance Institutions	Lunatic Asylums	Voluntary Hospitals	Municipal Hospitals	Other Institutions	Total	Per cent. of Deaths at each age.
Under 1	—	—	30	82	—	112	38·5
1— 2	—	—	12	18	—	30	48·4
2— 5	—	—	12	15	—	27	47·4
5—15	—	—	24	25	—	49	61·2
15—25	—	3	12	52	—	67	59·8
25—45	5	14	46	154	3	222	52·9
45—65	19	32	107	311	—	469	37·2
65 and over	100	18	54	373	—	545	27·3
Total ...	124	67	297	1030	3	1521	35·6

Certification of Deaths. 3,715 deaths, or 86·9 per cent., were certified by medical practitioners, and 379, or 8·9 per cent., by the coroner after inquest, and 183, or 4·2 per cent., where, after enquiries were made by the coroner, it was found that inquests were unnecessary. The table on the following page shows the causes of death as found at the inquests held.

Return Showing the Number of Inquests Held, and Verdicts Returned during the Year ended 31st December, 1931.

CAUSE OF DEATH	Wilful Murder	Manslaughter	Temporary Insanity	Intemperance	Anthrax	Accidental	Abortion	Natural and Unknown Causes	Open Verdicts	Totals	Remarks
Violence... ...	...	...	...	...	...	...	...	...	...	...	There were also 183 cases where, after enquiries were made, the Coroner found that Inquests were not necessary.
Burns and Scalds	...	...	...	...	...	7	...	...	...	7	
Railways ...	...	...	...	...	...	3	...	...	...	3	
Motor Vehicles...	...	...	...	...	...	32	...	...	...	32	
Other Conveyances	...	...	...	...	...	9	...	...	...	9	
Machinery ...	...	...	...	...	...	5	...	...	...	5	
Falls	...	...	...	...	...	63	...	...	...	63	
Suffocation ...	...	...	...	...	...	7	...	...	...	7	
Drowning ...	...	...	...	...	...	1	...	...	1	2	
Poisoning ...	...	...	...	...	...	8	...	...	...	8	
Intemperance ...	...	...	...	1	...	...	...	...	...	1	
Other Causes ...	...	...	...	...	...	2	...	...	1	3	
SUICIDES:—											
Drowning ...	...	...	8	...	...	...	...	...	1	9	
Hanging ...	...	...	2	...	...	...	...	...	1	3	
Poisoning ...	...	...	19	...	...	...	...	...	...	19	
Other Means ...	...	...	9	...	...	...	...	...	...	9	
Natural and Unknown Causes...	...	...	...	...	...	1	...	198	...	199	
Totals ...	...	...	38	1	...	138	...	198	4	379	

TABLE A.

Vital Statistics of Bradford from 1900.

Year	Population	Birth Rate	Death Rate	Zymotic Death Rate	Infantile Mortality Rate
1900	278,634	24·1	17·1	1·43	141
1901	279,969	23·0	16·7	1·86	168
1902	280,833	23·3	15·7	1·38	138
1903	281,799	23·4	16·2	1·32	148
1904	282,568	22·2	17·4	2·43	167
1905	283,441	21·3	15·3	1·45	144
1906	284,314	20·9	16·2	1·97	152
1907	285,189	20·1	14·7	0·91	124
1908	286,071	21·0	15·7	1·46	143
1909	286,954	19·2	14·6	0·68	116
1910	287,839	19·1	14·3	1·26	127
1911	288,723	19·0	15·0	1·60	140
1912	289,618	19·3	14·5	0·82	98
1913	290,540	19·6	15·1	1·10	128
1914	291,482	19·6	15·7	1·22	122
1915	*280,737	17·4	16·9	1·22	123
1916	*271,105	16·67	15·99	0·61	118
1917	*266,338	13·06	15·34	0·81	132
1918	*259,707	13·30	19·13	1·07	123
1919	*282,714	13·40	16·27	0·31	113
1920	293,979	20·52	13·31	0·42	93
1921	291,100	19·57	13·72	0·66	109
1922	291,300	17·92	14·02	0·36	87
1923	290,800	18·19	13·75	0·48	78
1924	290,200	16·94	14·86	0·31	92
1925	290,200	16·63	13·97	0·65	95
1926	288,700	16·31	13·58	0·47	92
1927	293,200	14·73	14·57	0·52	92
1928	288,500	15·32	13·60	0·38	69
1929	289,200	15·03	15·66	0·50	80
1930	293,254	14·92	13·45	0·44	75
1931	300,900	13·56	14·21	0·24	71

* Civil population.

II.—SANITARY CIRCUMSTANCES OF BRADFORD.

(*A*) *Water.* The water supply of Bradford, as provided by the Corporation Waterworks, is obtained from several upland surface sources and is distributed throughout the city by gravitation. The supply is constant and the water is generally soft. At the end of the year there were 60 farms and 187 houses in isolated localities in the city not connected with the Corporation mains. Eleven years ago there were 90 farms and 390 houses in the city not so connected. Of the several sources of supply, only one exhibits in its natural state any plumbo-solvency. This is the supply from Thornton Moor, 1,241 feet above sea level, where water is collected from peaty uplands to the west of the city. This water is treated at the reservoir to reduce the degree of plumbo-solvency.

Average Results of Analyses for Plumbo-solvency of Water as distributed.

	Grains per Gallon			
	Lead	Lead taken up in 24 hours	Alkalinity	Hardness
THORNTON MOOR WATER SUPPLY.				
22 samples before 8 a.m. ...	0·01864	0·0785	0·2048	3·1762
22 samples after 1 p.m.	0·0019	0 0772	—	—
INTERMEDIATE LEVEL SUPPLY.				
22 samples before 8 a.m. ...	0·0034	0·0625	0·5571	3·1381
22 samples after 1 p.m.	0·0001	0·0607	—	—
LOW LEVEL WATER SUPPLY.				
22 samples before 8 a.m. ...	0·0017	0·0763	2·0857	3·6143
22 samples after 1 p.m.	0·0016	0·0983	—	—

The number of notices served to secure a proper water supply (Sec. 53 Bradford Corporation Act, 1925) was 21 affecting 75 houses and farms.

(*B*) *Drainage and Sewerage.* There are 211 farms and 956 houses not connected with the Corporation sewers, 35 of the farms and 84 houses being in the Clayton area. Twenty-seven houses have been connected during the year and six cesspools have been abolished.

(C) *Closet Accommodation and Scavenging.* During the year 355 new water closets were provided. These included 144 additional water closets for dwelling-houses. Thirty-seven water closets were substituted for waste water closets (tipper), and 95 were substituted for privies, the ashpits in connection with them being replaced by dust bins. Sixty-four water closets were provided for factories and workshops, and fifteen for other premises.

ESTIMATE OF SANITARY ACCOMMODATION AT THE END OF 1931.

(i.) Dwelling-houses.

	No. of Houses	Water Closets	Waste Water Closets	Privies
WATER CLOSETS.				
More than one sanitary convenience to each house ...	6954	12407	463	20
One to each house	51109	51109	—	—
Less than one to each house ...	20413	10751	—	—
WASTE WATER CLOSETS.				
One to each house	7056	—	7056	—
Less than one to each house ...	114	—	57	—
PRIVIES.				
One to each house	55	—	—	55
Less than one to each house ...	77	—	—	34
Totals	85778	74267	7576	109

SUMMARY.	Number	Percentage
Houses with water closets	78,476	91·48
Houses with waste water closets	7,170	8·35
Houses with privies only	132	0·15

(ii.) Business and other Premises.

	No. of Premises	Water Closets	Privies
Factories, workshops, and other business premises ...	4844	12793	26
Places of worship, schools, public institutions, clubs, &c.	698	4681	27
Totals	5542	17474	53

	1931	
Number of water closets	91,741	
Number of waste water closets ...	7,576	
Number of privies	162	
		99,479
Number of wet ashpits	106	
Number of dry ashpits	13,828	
Number of dust bins	61,497	
		75,431

PROGRESS OF CONVERSION OF PRIVIES AND PROVISION OF ADDITIONAL WATER CLOSET ACCOMMODATION, 1911-1931.

Year	Dwellinghouses		Factories and Workshops		Other Premises		Totals	
	W.C's.	Privies	W.C's.	Privies	W.C's.	Privies	W.C's.	Privies
1911	2128	8	202	—	35	2	2365	10
1912	2917	9	196	—	95	—	3208	9
1913	3990	1	160	—	88	—	4238	1
1914	3123	1	127	—	14	—	3264	1
1915	2028	—	151	—	50	—	2229	—
1916	155	—	128	—	16	8	299	8
1917	30	—	70	—	—	—	100	—
1918	27	1	125	—	6	—	158	1
1919	77	5	135	—	22	—	234	5
1920	461	—	223	—	29	—	713	—
1921	1108	—	158	—	30	—	1296	—
1922	1654	—	134	—	25	—	1813	—
1923	2124	—	131	—	20	—	2275	—
1924	1503	—	89	—	31	—	1623	—
1925	1598	—	97	—	25	—	1720	—
1926	1363	—	107	—	43	—	1513	—
1927	834	—	101	—	64	—	999	—
1928	432	—	115	—	32	—	579	—
1929	369	—	111	—	19	—	499	—
1930	289	—	87	—	28	—	404	—
1931	276	—	64	—	15	—	355	—

The number of times each ashpit was emptied by the Cleansing Department during the year was on the average 9. The dust bins are emptied each week.

During the period under review, 217 personal applications were made for the cleansing of ashpits, as against 237 the previous year. One hundred and seventy-one applications were received through the post, as against 154, and 337 were made by the Sanitary Inspectors, as against 405 the previous year, the total being 725, as against 796 for the previous year. During the year 11,545 dust bins have been provided and 7,608 ashpits abolished.

Two hundred and fifty-nine plans have been approved by the Health Committee for the construction of works, as follows :—288 water closets affecting 351 dwelling-houses ; 26 water closets affecting 13 licensed premises ; 8 urinals affecting 8 licensed premises ; 68 water closets affecting 45 factories and workshops ; 13 water closets and 3 urinals affecting schools, clubs, and other premises.

(*D*) *Sanitary Inspection of District.* The number of tests to drains and sanitary fittings made by the Sanitary Inspectors during the year was 2,683, of which 1,090 were volatile tests with 199 positive results, 1,496 were coloured water tests with 236 positive results, 107 smoke tests with 22 positive results. In 762 of the houses tested infectious disease was present, in 237 cases diphtheria with 8 positive results, in 6 enteric fever with 1 positive result, and in 519 other diseases with 9 positive results. In 21 cases the system of drainage was such as to render impracticable the application of a test.

The drainage of 27 blocks of property, comprising 132 houses, was dealt with under Section 41 of the Public Health Act, 1875, as against 165 houses last year. The defects were found as the result of tests applied to the drains. In 3 cases after complaints of water in cellars, in 16 cases of bad smells in the cellars, in 3 cases after cases of infectious disease, and in 5 cases as the result of defects found during the course of work in progress. All these were dealt with by the City Surveyor after being referred to him by the Health Committee, and where necessary notices were served by this department for private drainage work.

The total number of downspouts disconnected from drains and sewers was 115 as against 210 last year. Accounts have been received and passed for payment for the disconnection of 51 downspouts at 69 houses, as against 78 downspouts and 85 houses last year. The total cost of the work involved was £96 15s. 9d., or an average of £1 17s. 11d. per downspout. The total amount payable by the Corporation was £48 7s. 6d.

The District Sanitary Inspectors have made 75,490 inspections and visits for the investigation and suppression of nuisances. The total number of nuisances reported was 8,181. The following statement shows the nature and the amount of work performed by the Inspectors during the year, together with the figures for the five preceding years for comparison.

PARTICULARS OF WORK DONE, 1926-1931.

Drainage and Sanitary Arrangements—	*No. of Cases.*					
	1926	1927	1928	1929	1930	1931
Choked drains cleansed	1314	1135	904	614	862	743
Drains amended	733	651	592	643	734	600
Drains reconstructed	868	604	410	387	510	281
Extra drains provided	515	170	124	130	178	104
Cellars drained	65	49	28	41	27	27
Drains underneath houses abolished ...	20	16	7	15	40	9
Drainage systems intercepted from sewers	30	16	7	8	22	11
Open drain inlets trapped	6	6	5	23	28	11
Waste pipes trapped	27	30	21	47	87	22
Waste pipes disconnected	49	67	42	59	109	30
Rain water pipes disconnected	283	196	133	130	210	115
Rain water conductors repaired or renewed	1757	1278	1128	1001	1181	879
House sinks repaired or renewed ...	108	64	101	144	138	170
New house sinks provided	56	56	55	84	137	100
Water closet pedestals renewed	113	92	138	264	153	144
Water closets and flushing apparatus repaired	354	246	287	532	297	292
Water closets cleansed	109	78	78	45	49	34
Water closet apartments cleansed and limewashed	542	518	487	410	413	161
Water closet apartments properly lighted and ventilated	4	3	5	15	12	18
Soil pipes repaired or renewed	31	23	23	37	34	27
Indoor soil pipes abolished	—	—	4	1	—	3
Urinals cleansed, amended or screened	14	7	11	9	18	11
Urinals remodelled	7	9	2	5	5	4
New urinals provided	3	4	5	3	1	5
Privies and Ashpits						
Privy structures abolished	130	88	57	55	46	56
Deposit of slops in ashpits prohibited ...	12	8	5	45	18	—
General repairs executed	825	639	458	318	195	181
Privy apartments cleansed and limewashed	48	44	29	22	20	6
Dust bins repaired or renewed	856	621	662	570	829	1102
Ashpits abolished	—	—	20	1611	6502	7608

	No of Cases.					
	1926	1927	1928	1929	1930	1931
Dwelling-houses, etc.—						
Dampness excluded	241	190	224	127	298	237
Roofs repaired	461	341	343	168	334	279
General repairs executed	790	528	558	486	739	1495
Houses or parts cleansed or limewashed	242	216	158	132	129	148
Ventilation improved	35	27	10	34	22	210
Overcrowding abated	28	29	33	47	28	22
Cellar areas cleansed	13	8	11	4	26	6
Caravans removed	26	51	45	112	35	2
Houses reported for provision of W.C.s	1102	470	385	108	67	186
Houses reported for privies	26	23	3	—	2	—
Courts, Back-yards, Stable-yards, etc.—						
Paving repaired in yards and passages	182	208	147	163	236	215
Yards and passages newly paved ...	9	15	5	4	4	8
Yards repaved	—	—	2	3	13	11
Yards cleansed	90	113	80	92	78	57
Passages cleansed and limewashed ...	170	311	360	226	176	47
Keeping of Animals, etc.—						
Improper keeping of swine prohibited	14	3	7	4	—	8
Improper keeping of fowls prohibited ...	49	25	19	18	11	17
Accumulations of offensive matter removed	145	124	79	92	65	52
Accumulations of manure removed ...	50	51	48	33	16	19
Manure pits repaired	—	5	1	3	3	4
Manure pits provided	1	1	—	—	—	2
Miscellaneous Nuisances—						
Dangerous places made secure	103	91	38	77	55	37
Effluvium nuisances abated	33	17	15	39	17	20
Other unclassified nuisances abated ...	104	539	96	44	99	—
Special Inspections—						
Graveyards	51	121	150	46	51	36
Offensive trade premises	213	186	273	355	396	653
School inspections	637	750	719	832	812	708
Zymotic disease investigated and subsequent visits made	4654	16903	23068	10793	6320	5177
Complaints specially investigated ...	1985	1620	1625	1586	1767	1735

During the year 1,141 complaints as to niusance were received, as against 1,192 the previous year. The number of statutory notices served for the abatement of nuisances was 1,750, as against 2,442 last year. The number of notices served for the abolition of ashpits was 4,408, and the number of notices served for the provision of dust bins was 4,301. The houses affected by the ashpit notices were 11,609 and the houses affected by dust bin notices were 11,144. The number of preliminary notices served for dangerous places to be made secure was 37, as against 21 the previous year. There were 54 of these places dealt with, as against 55 last year. Eight cases were heard at the City Court for failing to obey notices issued from this department, all of which were withdrawn, the work having been done either before the hearing of the case or during the time of adjournment. Costs amounting to £1 12s. 0d. were inflicted in the 8 cases.

The number of visits made to Burial Grounds in the City was 36, as against 51 last year. No irregularities were observed. Under the terms of licenses issued from the Home Office the District Inspectors supervised the exhumation and reinterment of a body at Eccleshill Wesleyan Church Burial Ground, and the exhumation of a body at Scholemoor Cemetery which was later cremated.

During the year the Woman Sanitary Inspector has made 367 visits to the women's conveniences in the public streets, parks, cemeteries and recreation grounds, for the purpose of making inspection as to the condition of the conveniences set apart for the use of females, with the result that in 14 instances nuisances were found. These were notified verbally to the person in charge and abated.

(E) Workshop and Shop Inspection, etc.

(1) FACTORIES, WORKSHOPS AND WORKPLACES.

I.—Inspections (Including Inspections made by Sanitary Inspectors).

Premises	Number of		
	Inspections	Written Notices	Prosecutions
Factories ... ... (Including Factory Laundries)	959	43	...
Workshops ... ... (Including Workshop Laundries)	2524	47	...
Workplaces ... ... (Other than Outworkers' premises)	555	63	...
Totals ...	4038	153	...

II.—Defects Found in Factories, Workshops, and Workplaces.

Particulars	Number of Defects			Prosecutions
	Found	Remedied	Referred to H.M. Inspector	
*Nuisances under the Public Health Acts:**				
Want of cleanliness	149	146	...	...
Want of ventilation	13	11	...	...
Overcrowding	...	...	...	...
Want of drainage to floors	5	5	...	...
Other nuisances	360	350	...	...
Sanitary accommodation — insufficient	44	41	...	...
Sanitary accommodation — unsuitable or defective	63	52	...	...
Sanitary accommodation — not separate for sexes	12	11	...	...
Offences under the Factory and Workshop Act:—				
Illegal occupation of underground bakehouse (S. 101)	...	...	...	...
Other offences (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)	...	...	...	...
Totals	646	616	...	...

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

III.—Registered Workshops, Etc.

Workshops on the Register (S.131) at the end of the year	Number
Workshops	1800
,, Bakehouses	357
Factory Bakehouses	171
Restaurant Kitchens	135
Total	2523

IV.—Other Matters.

Class	Number
Matters notified to H.M. Inspector of Factories:—	
Failing to affix Abstract of the Factory and Workshop Acts (S. 133), 1901	29
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Act, but not under the Factory and Workshop Act (S. 5), 1901 — Notified by H.M. Inspectors	35
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Act, but not under the Factory and Workshop Act (S. 5), 1901 — Reports (of action taken) sent to H.M. Inspector	37
Other Reports to H.M. Inspectors	...
Underground Bakehouses (S. 101):—	
Workshop Bakehouses in use at the end of the year	22
Factory Bakehouses in use at the end of the year	11
Homework—Secs. 107 to 110:—	
Employers failing to keep list of outworkers (form 44)	9
Notices served on employers for failing to keep or send in lists ...	403
List of outworkers not received	...
Cases of outwork in infected and unwholesome premises	...
Outworkers visited	240
Prosecutions for failing to send in list of outworkers	...
Limewashing and painting of Bakehouses (S. 99):—	
Occupiers requested to limewash or cleanse walls and ceilings of bakehouses	201

(2) SHOPS ACTS, 1912—1930.

Shops Inspected. The total number of shops on the Register is 7,821, and the number of visits and investigations made was 6,632. The number of shops visited in which young persons were employed was 802, and in 151 instances the employers had failed to exhibit the notice referring to the specific provisions of the Act. All the employers were cautioned. Visits were made to 1,236 shops where female assistants were employed, and in all cases seats were provided for the assistants as required by the Act.

In 24 shops no notice specifying the day of the weekly half-holiday was displayed, and the offenders were all cautioned. In 33 instances shops were found open and the occupiers selling non-exempted articles

on the weekly half-holiday, and one person was found hawking on the day fixed for the closing of shops. Four of these offenders were prosecuted, and the remainder cautioned. The occupiers of 183 shops were found not displaying the notices specifying the exempted trades for which they were remaining open after the closing hour of the weekly half-holiday, and they were all cautioned. In 287 cases employers had failed to provide the prescribed form relating to their assistants' weekly half-holiday; all the offenders were cautioned. In 12 shops assistants were found employed after half-past one o'clock on their specified weekly half-holiday, 2 employers were prosecuted and the remainder cautioned. In 10 shops assistants were not being allowed correct intervals for meals; 1 employer was prosecuted and the remainder cautioned. Two young persons were found to have been employed more than 74 hours in one week, one employer was prosecuted and the other cautioned.

Closing Orders. During night visits and observations after the closing hours affecting certain classes of shops, 6 shops were found open after the prescribed closing hour. One shop-keeper was prosecuted and the remainder cautioned. In 91 shops official copies of Closing Orders, etc., were not displayed. All these offenders were cautioned.

Shops (Hours of Closing) Act 1928. As a result of night inspections 7 shop-keepers and 2 hawkers were found carrying on business after the closing hour. Two offenders were prosecuted and the remainder cautioned.

Tobacconists' Shops. During the year a petition was sent to the City Council, asking that the hours of sale for tobacco and smokers' requisites be extended to 10 p.m. on the late day (Saturday) and to 9.30 p.m. on other days. After verification of the signatures it was found that the requisite majority of two-thirds of the occupiers of tobacconists' shops had been obtained, and the Council duly made the required Order.

Hairdressers and Barbers Shops Sunday Closing Act, 1930. This Act came into operation on the 1st January, 1931, and prohibits any person carrying on the business of a hairdresser or barber on Sunday. Certain exceptions are provided for in the case of hairdressers of Jewish religion, or in case of illness, etc.

Inspections made on Sundays revealed that such hairdressers as had hitherto opened their shops on Sunday were now generally complying with the provisions of the Act. One shopkeeper was cautioned for a contravention.

ADMINISTRATION OF THE SHOPS ACTS, 1912-1930.

Summary of Inspections and Offences.

Inspections.

Number of shops on register	7,821
Number of shops visited where females are employed ...	1,236
Number of shops visited where young persons are employed	802
Total number of inspections	6,632

Offences.

Nature of Offence	No. of Cases	No. of Warnings	Prosecutions		
			No. of Cases	Fines £ s. d.	Costs £ s. d.
Shops Act, 1912—					
Abstract relating to young persons not displayed ...	151	151			
Prescribed form relating to half holiday of assistants not displayed	287	287			
Young persons employed more than 74 hours per week ...	2	1	1	1 0 0	0 5 0
Young persons employed in shop after being employed in factory for permitted hours...	—				
Correct meal times not allowed to assistants	10	9	1	1 0 0	
Half holiday not allowed to assistants	12	7	5	5 0 0	0 4 0
Seats not provided for female assistants	—				
Notice of day of weekly half holiday not fixed	24	24			
Shop open after closing hour on weekly half holiday ...	33	29	4	1 15 0	0 4 0
Hawking on weekly half holiday after hour fixed by Order	1	1			
Shop open after closing hour fixed by Closing Order ...	6	5	1	1 0 0	
Hawking after hour fixed by Closing Order	—				
Official copy of Closing Order not displayed in shop ...	91	91			
Notices not displayed in mixed shops after closing hour ...	183	183			
Shops (Hours of Closing) Act, 1928—					
Shop open after closing hour...	7	5	2	0 15 0	
Hawking after closing hour ...	2	2			
Hairdressers' and Barbers' Shops (Sunday Closing) Act, 1930—					
Hairdresser carrying on business on Sunday	1	1			
Totals	810	796	14	£10 10 0	£0 13 0

(3) RAG FLOCK ACT, 1911—1928.

During the year 21 samples of rag flock were submitted to the City Analyst, and they were all found to comply with the standard of cleanliness laid down in the Regulations under the Act.

(F) Premises, Etc., Controlled by Bye-laws or Regulations.

(1) COMMON LODGING HOUSES.

At the end of the year there were 16 registered common lodging houses in the city, comprising 97 sleeping rooms, and affording nightly accommodation for 790 males, 22 females, and 24 couples.

The total number of persons accommodated during the year was 185,716, as against 190,865 the previous year. The nightly average was 510, representing 59·3 per cent. of the accommodation available. This shows a decrease of 1·4 per cent. on the previous year.

The following table shows the number of nights spent by single men, women, young persons, and couples in common lodging houses during the year :—

ADULTS			8 to 21 years		Under 8 years	
Males	Females	Couples	Males	Females	Males	Females
166518	5470	6485	391	7	127	233

The whole of the houses have been limewashed and cleansed in accordance with the Public Health Act, 1875.

Two applications for transfer of Registry as keepers were granted during the year.

The total number of inspections made during the year was 678, 17 of which were night visits, and it was found unnecessary to make any serious complaint in any case. There have been no cases of infectious disease reported during the year in any Common Lodging House. No difficulties have been experienced in gaining admittance and it has not been necessary to resort to Police Court proceedings.

(2) CANAL BOATS.

The number of boats inspected within the city boundary during the year was 65. With two exceptions the structural and sanitary conditions of all these was satisfactory. In the exceptions above mentioned the cabins of the boats were found to be not weatherproof and dry. Notices were served in respect to these defects. The defects for which notices were outstanding at the end of the previous year were remedied during the year under review.

(3) OFFENSIVE TRADES, Etc.

The number of offensive trades within the city is 346, of which 295 are fish friers. Two hundred and thirty-five of the fish friers and one other trade are subject to annual license. The number of visits of inspection made to offensive trades other than fish friers was 653.

(4) SCHOOLS.

The number of visits made for the sanitary inspection of schools was 708, as against 820 last year. Minor defects have been noted and remedied at various schools.

(5) INSPECTION OF CINEMAS AND OTHER PLACES OF PUBLIC ENTERTAINMENT.

The periodical inspection of these places was carried out as usual by the District Sanitary Inspectors, and 109 recorded inspections have been made during the year. Minor defects which were observed were remedied on the attention of the management being called thereto. A number of visits were made during the year in regard to the exclusion of children from cinemas owing to the prevalence of zymotic disease, but no breaches of the law were observed.

G. Other Sanitary Work.

SMOKE ABATEMENT.

During the year the number of observations (each of half-hour duration or longer) made by the Smoke Inspector for the emission of smoke, etc., was 720 and 159 inspections were made of the boiler plants concerned.

Sixty-three chimneys were found to be discharging black smoke for more than a total of three minutes in the half hour. The firms concerned were notified in writing immediately following the observation and notices to abate the nuisance were served in each case. The average discharge of black smoke in these cases was 6.9 minutes in thirty.

The causes of smoke were carefully investigated in the 63 cases subject to preliminary notices and are summarised as follows :—

Heavy spread firing	31 cases.
Excessive dragging of fires	19 cases.
Negligent attention to coal feed of machine stokers	4 cases.
Insufficient draught plant	4 cases.
Defective furnace construction	1 case.
Firemen engaged on other duties	4 cases.

In 59 cases (93·6 per cent.) the excessive smoke was due to some form of negligence in the boiler management and only in four cases was it necessary to make additional alterations to the plant.

Several firms discharged excessive black smoke and Court proceedings were instituted in four cases with the results as shown :—

SUMMARY OF PROSECUTIONS TAKEN UNDER THE PUBLIC HEALTH (SMOKE ABATEMENT) ACT, 1926.

Black smoke discharged mins. in 30.	Particulars of Boiler Plant	Method of stoking	Causation of smoke	Penalties and Costs £ s. d.
4	Two Lancashire Boilers...	Hand ...	Heavy spread firing (costs)...	0 6 0
5	Three Lancashire Boilers	Machine	Indifferent and careless firing, inattention to machine stoker	2 0 0
7	Two Lancashire Boilers...	Hand ...	Furnaces neglected, firemen engaged on other duties (costs only)	0 4 0
7	Five Lancashire Boilers	Machine	Excessive dragging and raking of fire (costs) ...	0 6 0
			Total ...	£2 16 0

The above cases were proved in Court and in three cases where penalties were not inflicted, the firms had previously been fined.

No very important changes have been made in industrial boiler plant during the year. A new high steam pressure water tube boiler and two replace boilers have been installed at the Corporation's Valley Road Power Station; these boilers are of special interest because the gases before travelling to the chimneys are partly filtered by passing them through efficient grit and soot arresters of the Centrifugal type.

The City Analyst has examined monthly throughout the year the contents of two atmospheric deposit gauges situated in

(1) A northern residential district, two miles from the centre of the City;

(2) the centre of the City;

being respectively known as North and Central, and the following is a summarisation of the City Analyst's Report :—

TONS PER SQUARE MILE.

Station	Period	Total Solids	Tar	Carbon	Ash	Sulphuric Acid	Chlorine	Ammonia
North ...	January ...	14·20	1·00	7·27	5·92	2·96	2·82	0·14
Central ...	January ...	42·58	1·26	21·91	19·42	6·84	3·26	0·21
North ...	February ...	15·30	0·18	5·67	9·46	6·28	0·18	3·10
Central ...	February ...	29·93	0·84	13·17	15·93	13·44	0·56	3·56
North ...	March ...	7·17	0·18	2·75	4·25	1·00	0·86	0·36
Central ...	March ...	30·91	1·19	12·40	17·32	2·95	1·75	0·28
North ...	April ...	13·55	0·43	6·91	6·20	3·88	2·83	0·25
Central ...	April ...	64·20	1·78	28·40	34·02	9·54	3·17	0·80
North ...	May ...	9·35	0·75	3·96	4·64	2·32	1·07	0·18
Central ...	May ...	41·53	1·99	15·62	23·92	3·28	1·43	0·42
North ...	June ...	20·01	0·21	12·41	7·38	9·40	1·28	0·14
Central ...	June ...	31·19	0·70	17·70	12·78	10·91	1·68	0·10
North ...	July ...	12·38	0·12	7·17	5·10	0·69	1·03	0·07
Central ...	July ...	30·14	0·42	11·04	18·69	3·37	1·43	0·17
North ...	August ...	7·56	0·29	3·92	3·35	0·78	1·21	0·36
Central ...	August ...	15·68	0·17	8·94	6·56	1·97	1·32	0·01
North ...	September ...	6·59	0·07	4·21	2·32	0·92	0·75	0·04
Central ...	September ...	11·18	0·10	3·71	7·37	1·75	0·73	0·14
North ...	October ...	8·99	0·78	4·35	3·85	2·32	0·96	0·07
Central ...	October ...	12·47	0·03	5·76	6·67	3·54	1·76	0·42
North ...	November ...	8·13	0·75	4·28	3·10	7·69	2·72	0·39
Central ...	November ...	63·12	2·10	29·76	31·26	12·58	3·70	0·45
North ...	December ...	21·62	0·50	10·31	10·81	8·29	6·17	0·07
Central ...	December ...	30·04	0·94	13·94	15·16	11·12	3·70	0·24
North		144·85	5·26	73·21	66·38	46·53	21·08	5·17
Central		402·97	11·52	182·35	209·10	81·29	24·49	6·80
Total (North and Central)		547·82	16·78	255·56	275·48	127·82	45·57	11·97
Means		273·91	8·39	27·78	137·74	63·91	22·78	5·98

Assuming the mean of the two stations to give the average deposit for the city, which has an area of 38·034 square miles; the total deposits on the city amount to the following for the year 1931 :—

Total Solids	Tar	Carbon	Ash	Sulphuric Acid	Chlorine	Ammonia
10,417·7893	319·10	4,859·98	5,238·80	2,430·75	866·41	227·44

The sulphuric acid is probably the most destructive of the above, and this deposit perhaps can be better visualised in terms of volume measurement, which amounts to 295,917 gallons, whilst the tar deposit amounts to 64,980 gallons.

Boiler Plant 1931 Record.

During the year a record was made of the boiler and furnace plant within the city. The results have been analysed and provide the following data.

There are 524 factory chimneys varying in the height from 30 feet to 245 feet, 30 of these chimneys are placed on premises which are temporarily unoccupied, whilst 51 chimneys are standing unused and are not connected to any plant whatever.

The following is a summarisation of the Boiler Plant, etc., in the city as compared with 10 years ago.

Types of Boilers used	1931 No. of boilers	1921 No. of boilers
Lancashire	518	521
Cornish	75	67
Vertical	45	34
B. & W. (Water tube)	25	29
Yorkshire	13	13
Marine (Fire tube)	4	7
Semi-loco	5	5
Cochran	6	4
Stirling (Water tube)	7	2
Eggend	0	8
Sundry types	18	0
Total Boilers	716	690

Boilers used in the Various Industries	1931 No. of boilers	1921 No. of boilers
Spinning and Weaving	221	220
Woolcombing	111	100
Dyeing	107	127
Engineering	20	17
Ironworks	7	22
Laundries	15	10
Railways (Goods Stations, etc.)	9	14
Breweries	5	9
Saw Mills, Packing Case Makers	17	9
Chemical Works	12	9
Collieries	1	9
Soap Makers	7	6
Stone Quarries, etc.	11	10
Brickworks	8	5
Printers	3	3
Gasworks	19	16
Electricity	20	27
*Baths, Schools	19	36
Food Production	17	6
Sundry use	87	35
Total Boilers	716	690

* Coke-fired cast-iron heating boilers not included in 1931 figures. Table includes trades last carried on in temporarily closed down premises.

Methods of Stoking	1931 No. of boilers	1921 No. of boilers
Hand Firing (all types of boilers)	326	369
Mechanical Firing (Sprinkler-Proctor)	199	169
Mechanical Firing (Sprinkler-Bennis)	78	77
Mechanical Firing (Sprinkler-Triumph)	43	46
Mechanical Firing (Cokers-Hodgkinson)	27	29
Mechanical Firing (Cokers, B. & W. Chain Grate)	31	31
Mechanical Firing (Cokers-Bennis)	3	3
Sundry types	9	6

390 Boilers are mechanically fired.

159 Lancashire Boilers are fired by hand and 359 (or 69 per cent.) by machine.

Air Supply to Boilers—Methods of applying draught	1931 No. of boilers	1921 No. of boilers
Operated with natural draught (chimney)	324	265
Operated with forced draught (steam jet)	314	326
Operated with induced and forced draught (fan and steam jet)	78	99

Men attending Boiler Plant	1931 No. of men	1921 No. of men
Solely engaged in stoking	451	557
Combined duties, stoker and engineer	52	42
Engineers-in-Charge	143	173
Total Men	646	672

COAL CONSUMPTION.

Class of Stoking	1931 Tons per annum	1921 Tons per annum
Fired by Sprinkling Stokers	422,084	546,006
Fired by Coking Stokers...	140,065	269,852
Fired by Hand	112,084	216,322
Boiler use only	674,233	1,032,180
Iron and Steel Manufacture	14,260	74,810
Gas and Coke Manufacture	139,039	153,010
Chemical and Other Furnaces	5,000	6,000
Industrial Use	832,523	1,266,000
Institution and Office } Estimated	30,000	30,000
Household Purposes } Estimated	340,000	340,000
Total used in City	1,202,523	1,636,000

III.—FOOD.

(A) MILK SUPPLY.

Report by W. Halstead, M.R.C.V.S., D.V.S.M. (Vict.), Veterinary Inspector.

There is an average dairy cow population in Bradford of 4,332 animals, housed in 283 dairy farms. The amount of milk produced by these cows is estimated at 10,600 gallons per day, whilst about 8,500 gallons come into the city by train or road; the total amount of milk consumed in the city being about 19,100 gallons daily, representing about 0·4 pints per head of the population for all purposes.

The dairy herds were regularly inspected during the year, 460 visits being made to the dairy farms in the city. Seventeen cases of Tuberculosis were observed amongst the cattle, 8 of which were affected with Tuberculosis of the Udder. These 8 cows were members of 7 herds, with a total daily milk production of 490 gallons. The remaining 9 animals were affected with Tuberculosis in various other forms. The number of samples taken for bacteriological examination was 257, of which 154 were for biological tests.

Tuberculosis Order, 1925. The above mentioned 17 animals were slaughtered under the provisions of this Order; on post-mortem examination 3 showed the disease as not advanced; whilst in the remaining 14 the lesions were those of advanced Tuberculosis. The amount of compensation paid to the owners was £78 10s. 0d., and the nett salvage received for the disposal of the carcases, etc., was £24 16s. 0d.

Contagious Abortion. During the routine inspection of dairy cows, definite clinical evidence of contagious abortion was noted in 4 herds. The estimated quantity of milk produced on these farms was 120 gallons daily. No cases of Undulant Fever attributable to the consumption of milk from these herds were reported.

Milk and Dairies Consolidation Act, 1915.

Biological Examination of Milk for Tuberculosis. Five hundred and fifty-five samples were taken; 294 sources were outside and 261 inside the city. Eight samples from outside sources were reported as positive for B. Tuberculosis. On 5 farms the affected animals were found and slaughtered, whilst on the remaining three farms the source of the contamination could not be traced. Ten samples from farms inside the city were also reported positive, and from 5 farms the affected

animals were slaughtered. On the five remaining farms the source of the contamination could not be traced.

Pasteurised Milk. B. Tuberculosis has been present on two occasions towards the end of the year in this class of milk. The milk in the first case was consigned from a collecting depot outside the Bradford area. The pasteurisation of this milk was carried out under the licence granted by the Local Authority of that area in which the depot was situated.

The source of the contamination was not traced. Fifteen thousand gallons per day were dealt with by this depot and the Local Authority concerned decided that it was impracticable in view of the numerous sources of supply to trace the infected cows. On the receipt of this information seven samples were taken from a consignment of 221 gallons of this pasteurised milk. Of these samples two were reported as positive to the biological test three weeks after inoculation, whilst the other five were reported as positive five weeks after inoculation.

The Local Authority concerned again affirmed that it was impracticable to trace the infected animals, but alterations in the working of the plant had been suggested and made in the hopes that it would adequately deal with the infected milk.

In the second case the milk was consigned to Bradford from a Creamery outside the Bradford Area.

The Medical Officer of the area in which the creamery is located reports that this creamery is well known to him and that the milk is put through a process of clarifying, pasteurising and brine-cooling. The source of the contamination in this instance was traced to certain farms sending milk to this creamery, and three cows suffering from Tuberculosis of the Udder were slaughtered.

Occurrences such as these demonstrate that pasteurisation cannot always be relied upon to render milk free from tubercle infection.

Heat Treated Milk. Apart from milks sold as pasteurised or sterilised milk there is a considerable increase in the quantity of heat treated milk offered to the public. The milk is heated for commercial reasons alone in order to preserve it. This heated milk is either sterilised milk or milk that has been subjected to a heating process, but for which no licence has been granted under the provisions of the Milk (Special Designations) Order 1923.

(*a*) Sterilised milk. It has been found that this milk has been subjected to a heating process before it was consigned to the firm who carries out the sterilisation. Samples of this milk usually show that it is sterile. There are, however, indications that the nutritional value of this class of milk is seriously impaired, especially for young children.

(*b*) Ordinary heat treated milk. This milk is sold in bottles and there is no indication to inform the purchaser that such milk has been subjected to heat and subsequent heating of this milk in the household will further reduce its nutritional value. Heat treated milks should not be sold to the public without some indication to show that they have been so treated.

The Milk (Special Designations) Order, 1923. There is one herd in the city producing under this Order about 40 gallons of Grade " A " Tuberculin Tested milk per day, and 11 herds producing 832 gallons of Grade " A " milk per day.

SUMMARY.

Number of city dairy farms			283
Average dairy cow population			4332
Number of visits to city farms			460
Number of visits to farms outside the city			3
Number of county cows inspected			24
Cows affected with :—			
(1) Tuberculosis of the Udder :			
Slaughtered (*a*) Not advanced	2		
(*b*) Advanced	6		
	—		8
(2) Clinical Tuberculosis (other forms) :			
Slaughtered (*a*) Not advanced	1		
(*b*) Advanced	8		
	—		9
Bacteriological Examinations (Samples)			257
Submitted for Biological Tests (Samples)			154
Tuberculosis Order, 1925.			
Compensation paid to owners		£78 10	0
Nett Salvage received for carcases		£24 16	0

Milk and Dairies Order, 1926. There are 493 cowsheds within the city, and much improvement has been effected within recent years in their structure and equipment, and farmers now realise that the production of a consistently clean milk is, with care and method, comparatively easy.

SUMMARY OF DEFECTS REMEDIED.

	1929	1930	1931
Floors	35	79	18
Light and ventilation	23	55	16
Water supply	8	—	—
Drainage	5	14	2
Manure pits	3	3	4
Milk-rooms provided	39	62	33
Milk-rooms altered	—	19	2
General repairs	6	18	4
Rooms added for sterilization purposes	—	6	4

Total number of visits to farms in 1931, 716.

Milk Shops, Dairies and Purveyors of Milk. There were at the end of the year 350 vendors of milk registered and residing within the city. These may be classified as follows :—

Cowkeepers and retailers	141
Retailers only (in street or from their homes) ...) Milkshops (including dairies, confectioners, small grocers and other shops) ... ...) ...	209
Shops where milk is sold in sealed bottles only	662

The number of visits made to these premises was 653, and generally the premises were found to be in a satisfactory state.

In addition to these 350 vendors residing within the city, 70 dairymen came into the city from surrounding districts to sell milk by retail.

The milk supply produced within the city is supplemented from 257 sources outside the boundary. From these sources the milk arrives in Bradford in 78 cases by rail, 1 by tramways, and 178 by road.

During the year 23 milk purveyors were registered, in addition to 58 shopkeepers who were registered to sell milk in sealed bottles only.

Eleven persons have been granted a dealer's licence to sell Certified milk, and 47 to sell Grade " A " milk.

Chemical Examination of Milk. One thousand and forty-one samples were analysed, and the results are shown in tabulated form on the following page. These show that 2·4% of the samples gave an analysis under 3·0% of fat, and 71·27% over 3·5% of fat; whilst 1·53% of these samples gave an analysis under 8·5% of non-fatty solids. The total either below 3·0% of fat or 8·5% of non-fatty solids was 36, or 3·45% of the samples.

Bacteriological Examination of Milk. Reference to the Report of the City Bacteriologist will give the number of the samples examined and further details.

There were 757 samples of milk submitted for bacterial counts. Of these samples 408 were obtained from sources outside the city and 349 from inside. In 336 samples or 44·38%, B. Coli was absent in 1 c.c.; in 170 samples or 22·45%, B. Coli was absent in 0·1 c.c.; in 137 samples or 18·09%, B. Coli was absent in 0·01 c.c.; in 66 samples or 8·71%, B. Coli was absent in 0·001 c.c.; and in 48 samples or 6·34%, B. Coli was present in 0·001 c.c.

Municipal Milk Depot. At the Municipal Milk Depot in 1931 63,316 gallons of milk were obtained from 4 sources, including 14,337 gallons of Grade " A " Tuberculin Tested milk, and 32,852 gallons of Grade " A " milk. The amount of milk sold was 61,802 gallons.

The institutions supplied with the milk were as follows :—

Tuberculosis Dispensary	5,516 gallons
Maternity and Child Welfare Scheme	49,695 gallons
Other Institutions and Persons	6,591 gallons
Total	61,802 gallons

(B) THE FOOD AND DRUGS ADULTERATION ACT 1928, AND THE PUBLIC HEALTH (PRESERVATIVES ETC. IN FOOD) REGULATIONS.

The number of samples of food and drugs taken under these Acts and submitted to the Public Analyst for analysis by the sampling officer was 1,418. Of these 1,361 were certified as genuine, and 57 as adulterated or doubtful. In 11 adulteration cases proceedings were taken against the vendors. The total penalties and costs amounted to £11 1s. 0d.

The adulterations in the remaining cases were small, and the vendors were cautioned by letter.

Results of Milk Analysis, 1931.

Non-Fatty Solids	Fat																							
Per cent.	Under 2·5	2·5	2·6	2·7	2·8	2·9	3·0	3·1	3·2	3·3	3·4	3·5	3·6	3·7	3·8	3·9	4·0	4·1	4·2	4·3	4·4	4·5	4·6 & over	Total	Per Cent
Under 7·5	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	Under 7·5
7·5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7·5
7·6	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	7·6
7·7	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	7·7
7·8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7·8
7·9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7·9
8·0	—	—	—	—	1	—	1	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	4	8·0
8·1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	2	8·1
8·2	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	2	8·2
8·3	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	2	8·3
8·4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8·4
8·5	—	—	—	—	—	—	—	—	1	1	—	—	—	1	1	—	—	—	—	—	1	—	2	7	8·5
8·6	—	—	—	—	—	—	—	1	2	—	3	1	2	2	—	2	—	—	—	1	—	—	1	15	8·6
8·7	—	—	—	—	—	1	3	1	2	2	4	4	—	1	2	2	1	1	2	—	2	2	3	33	8·7
8·8	—	—	—	—	2	—	5	2	2	4	4	3	4	7	4	1	1	1	2	2	1	2	7	54	8·8
8·9	—	1	—	2	—	2	3	4	8	11	8	13	13	18	10	4	9	6	3	3	5	4	12	139	8·9
9·0	1	—	—	—	—	2	13	7	16	19	20	18	27	20	12	18	5	6	6	3	3	1	11	208	9·0
9·1	1	—	—	—	1	—	8	10	9	7	19	30	20	20	11	8	10	14	9	10	11	3	16	217	9·1
9·2	—	1	—	1	—	—	5	6	3	14	13	22	15	22	22	17	13	7	4	8	5	2	7	187	9·2
9·3	3	—	—	1	—	—	1	1	5	3	11	7	9	10	10	8	10	7	—	6	5	3	2	102	9·3
9·4	—	—	—	—	1	—	—	4	2	1	—	6	3	7	4	4	4	1	3	1	—	2	6	49	9·4
9·5	—	—	—	—	—	—	—	—	—	1	—	—	2	—	1	2	2	1	1	1	—	—	—	11	9·5
9·6	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	—	—	—	—	—	—	—	3	9·6
9·7	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	9·7
9·8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9·8
9·9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9·9
10·0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10·0
Totals ...	6	3	—	5	5	6	41	36	51	63	83	105	96	110	78	68	57	44	30	35	33	19	67	1041	

Table Showing Number of Samples Procured and Examined During 1931.

Nature of Sample	Number Sub-mitted	Statutory Sample		Informal Sample	
		Genuine	Adult-erated	Genuine	Adult-erated
Baking Powder	6	1	1	3	1
Beer	4	—	—	4	—
Boiled Sweets	8	—	—	8	—
Brawn	2	1	—	1	—
Butter	39	—	—	39	—
Candied Peel	1	—	—	1	—
Cheese	4	—	—	4	—
Cheese (Cream)	1	—	—	1	—
Chocolate (Milk)	1	—	—	1	—
Cocoa	3	—	—	3	—
Cocoa (Tablets)	1	—	—	1	—
Coffee	6	—	—	6	—
Coffee and Chicory Extract ...	2	—	—	2	—
Cornflour	3	—	—	3	—
Cream	10	1	—	9	—
Cream (Tinned)	2	1	—	1	—
Cyder	2	—	—	2	—
Custard Powder	1	—	—	1	—
Dried Fruit	6	—	—	6	—
Dripping	2	—	—	2	—
Egg Substitute	1	—	—	1	—
Fat (Fish Frier's)	11	—	—	11	—
Fat (Vegetable)	1	—	—	1	—
Flour	3	—	—	3	—
Fruit Salad	2	—	—	2	—
Fruit Pectin	1	—	—	1	—
Gelatine	1	—	—	1	—
Ginger Wine	1	—	—	1	—
Ground Almonds	1	—	—	1	—
Ginger Wine Essence	1	—	—	1	—
Ground Ginger	1	—	—	1	—
Honey	5	—	—	5	—
Ice Cream	4	—	—	4	—
Jam	14	—	2	10	2
Jelly	2	—	—	2	—
Lard	18	—	—	18	—
Lemonade...	1	—	—	1	—
Lemon Cheese	3	—	—	3	—
Lemon Crystals	1	—	—	1	—
Lemon Squash	1	—	—	1	—
Margarine	38	—	—	38	—
Marmalade	1	—	—	1	—
Mincemeat	2	—	—	2	—
Meat (Paste)	2	—	—	2	—
Meat (Potted)	11	—	2	8	1
Mustard	3	—	—	3	—
Milk	1,041	463	22	541	15
Milk (Condensed)	13	—	—	13	—
Milk (Dried)	1	—	—	1	—
Oatmeal	2	—	—	2	—
Pepper	5	—	—	5	—
Totals (carried forward)... ...	1,296	467	27	783	19

Table Showing Number of Samples Procured and Examined During 1931.

Nature of Sample	Number Submitted	Statutory Sample		Informal Sample	
		Genuine	Adulterated	Genuine	Adulterated
Totals (brought forward) ...	1,296	467	27	783	19
Pickles	2	—	—	2	—
Polony	1	—	—	1	—
Pies	1	—	—	1	—
Raisin Wine Essence	1	—	—	1	—
Rice	5	—	—	5	—
Sauce	3	—	—	3	—
Sausage	19	—	1	17	1
Shredded Beef Suet	6	—	—	6	—
Soap Powder	1	—	—	1	—
Sugar	5	—	—	5	—
Syrup (Golden)	3	—	—	3	—
Tapioca	3	—	—	3	—
Tea	10	—	—	10	—
Teacake	1	—	—	1	—
Treacle	2	—	—	2	—
Tinned Vegetable	1	—	—	1	—
Vinegar (Malt)	1	—	—	1	—
Ammoniated Tincture of Quinine	2	—	—	2	—
Bismuth Tablets	1	—	—	1	—
Vinegar	3	—	1	1	1
Borax	1	—	—	1	—
Boracic Ointment	2	—	—	2	—
Boracic Powder	1	—	—	1	—
Castor Oil	3	—	—	3	—
Camphorated Oil	2	—	—	2	—
Citric Acid	2	—	—	2	—
Cod Liver Oil	1	—	—	1	—
Compound Liquorice Powder ...	3	—	—	3	—
Cream of Tartar	3	—	—	3	—
Digestive Tablets	1	—	—	—	1
Glycerine	3	—	—	3	—
Glycerine, Honey, and Lemon ...	2	—	—	2	—
Gregory Powder	1	—	—	1	—
Headache Powders	1	—	—	1	—
Olive Oil	5	—	—	5	—
Paregoric	1	—	—	1	—
Sweet Spirits of Nitre	1	—	—	1	—
Sulphur (Milk of)	3	—	—	3	—
Sulphur (Flours of)	1	—	—	1	—
Soap Liniment	2	—	—	2	—
Spirit of Sal Volatile	2	—	—	2	—
Tartaric Acid	2	—	—	2	—
Tincture of Iodine	4	—	1	2	1
White Precipitate Ointment ...	1	—	—	1	—
Zinc Ointment	3	—	—	3	—
Totals	1,418	467	30	898	23

(C) SLAUGHTERHOUSES AND MEAT INSPECTION.

The number of private slaughterhouses within the city is 33 and 1 knacker's yard. Eight of these, and also the knacker's yard, are subject to annual licence, and 25 are registered slaughterhouses. The number of visits made to private slaughterhouses was 1,850, and to butchers' shops and potted meat and sausage-makers' premises 3,011. There were no seizures of diseased or unsound meat during the year.

The total number of animals slaughtered in Bradford was as follows :—

	*Public Abattoir	Private Slaughterhouses.
Beasts	15,706	6,374
Sheep and Lambs	42,196	18,792
Calves	4,996	255
Pigs	23,797	7,110
	86,695	32,531

Total ..... 119,226.

* These numbers have been obtained from the Office of the Markets Superintendent.

The number of carcases condemned wholly or partly was 1,631. These were as follows :—

CARCASES CONDEMNED WHOLLY OR PARTLY AND DESTROYED.

	Wholly	Partly	Total
Cows	110	437	547
Bulls	1	6	7
Heifers	6	82	88
Bullocks	4	66	70
Sheep	98	19	117
Pigs	248	498	746
Calves	44	12	56
Totals	511	1120	1631

The incidence of tuberculosis in beasts and pigs is shown in the following table :—

	Beasts		Pigs	
	No.	Per-centage	No.	Per-centage
Generalised Tuberculosis	98	0·33	104	0·33
Localised Tuberculosis	450	1·56	317	1·02
Totals	548	1·89	421	1·35

The total weight of meat in lbs. found to be unsound or unwholesome was as follows :—Beef, 69,770; Mutton, 6,468; Pork, 41,664; Veal, 2,498; Offals, 43,360; a total of 124,736 lbs., or upwards of 73 tons. In addition to which the following quantities of imported meat were destroyed :—Chilled and Frozen Beef, 128 lbs.; Frozen Mutton, 12 lbs.; Frozen Pork, 60 lbs.; Frozen Ox Kidney, 18 lbs.

(D) OTHER ARTICLES OF FOOD.

Daily inspections of produce have been made during the year in the St. James' Wholesale Market and of fish in the wholesale fish warehouses. Regular inspections have been made in the retail markets in Rawson Place, James Street and John Street. Sixty-eight visits have been made to the fish curing and crab boiling premises in the city. These have been found to be in a satisfactory condition and the fish treated to be of good quality.

The following foodstuffs were found to be unfit for food and were destroyed after surrender by the owners :—

	Tons.	Cwt.	Qrs.	Lbs.
Wet Fish	1	12	1	18
Dry Fish	2	9	3	5
Shellfish	19	14	2	11
Game and Poultry		2	1	12
Rabbits	1	3	0	10
Cabbage, etc.	31	10	0	20
Legumes	4	12	0	0
Hard Fruits	6	18	0	26
Soft Fruits	2	9	0	12
Stoned Fruits		19	1	14
Tomatoes	1	5	1	7
Potatoes	15	14	3	0
Onions	6	6	3	12
Artichokes		11	0	0
Lettuce	1	8	3	4
Parsley		11	3	4
Parsnips	4	17	0	0
Endive			2	4
Cress			3	20
Radishes			3	24
Herbs		5	0	20
Nuts		2	0	0
Tinned goods, including milk, cream, fish, fruit, vegetables and syrup		9	0	9
Total weight ...	97	5	1	8

Sixty-nine couples of rabbits were seized under the Public Health Act, 1875, and duly condemned by a Magistrate.

Shell Fish. Eighty-nine samples of shell fish were submitted to the City Bacteriologist and the results of his examination are set out below.

Nature of Sample	Source of Supply	Results		
		Clean	Doubtful	Bad
Mussels	Killorglin (S.W. Ireland)	12	5	12
,, ...	Boston, Lincs	7	4	1
,, ...	Southwick	1	—	—
,, ...	Flookburgh	1	—	1
,, ...	Park Gate, Cheshire	1	—	—
,, ...	Millom	—	1	—
,, ...	Kipford, Dalbeattie	1	—	1
,, ...	Heysham	—	1	—
,, ...	King's Lynn	1	1	1
Cockles	Flookburgh	19	3	1
,, ...	Cark-in-Cartmel	6	—	—
,, ...	Holland	1	—	—
,, ...	Lytham	1	1	1
,, ...	Silverdale	2	—	—
,, ...	King's Lynn	1	—	—
Oysters	Liverpool	1	—	—
	Totals	55	16	18

Watercress and Lettuce. Thirty samples of watercress and forty-four samples of lettuce were submitted for bacteriological examination and the results in relation to B. Coli and B. Welchi are given in the table.

	Lettuce		Watercress	
	B. Coli.	B. Welchi.	B. Coli.	B. Welchi.
Absent from 1 gm.	3	8	15	15
Present on 1 gm. and absent from 0·1 gm.	21	25	13	14
Present on 0·1 gm. and absent from 0·01 gm.	15	11	2	1
Present on 0·01 gm. and absent on 0·001 gm.	4	—	—	—
Present on 0·001 gm. and absent on 0·0001 gm.	1	—	—	—

Ice Cream. Six hundred and forty-nine inspections were made of ice cream makers' premises and utensils and in only one case was it necessary to make serious complaint about the conduct of the business. One hundred and twenty-nine samples were submitted for bacteriological examination and the results indicated a striking improvement on the samples examined in 1930. 69·8% of the samples were found to have B. Coli absent from 1 c.c. against 32·1% for the previous year and 83·7% with B. Coli absent from 0·1 c.c. compared with 36·4% in 1930.

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

Coliform Bacilli	Number of Samples	Colonies on Agar at 37° C. per 1 cc.						
		under 50,000	under 100,000	under 200,000	under 500,000	under 1,000000	under 2,000000	over 2,000000
Absent in 1 cc. ...	90	48	8	2	5	16	4	7
Present in 1 cc. and absent in 0·1 cc. ...	18	5	2	2	1	3	—	5
Present in 0·1 cc. and absent in 0·01 cc. ...	9	3	1	—	—	1	—	4
Present in 0·01 cc. and absent in 0·001 cc.	5	—	1	1	—	1	—	2
Present in 0·001 cc. and absent in 0·0001 cc.	2	—	1	—	1	—	—	—
Present in 0·0001 cc.	5	—	—	—	—	4	—	1
Totals	129	56	13	5	7	25	4	19

Fish Friers' Premises. The number of fish friers' businesses in the city at the end of the year was 293. Fifty-three of these are not subject to the consent of the Corporation. Twenty-eight businesses were transferred during the year and nineteen applications for the consent of the Corporation to establish new businesses were considered by the Committee. Consent was granted in one case but the business was not established.

Inspection of premises and utensils revealed no serious cause for complaint.

IV.—PREVALENCE AND CONTROL OF DISEASE.

(A) INFECTIOUS DISEASES.

The total deaths in Bradford from enteric fever, smallpox, measles, scarlet fever, whooping cough, diphtheria, and diarrhœa and enteritis under 2 years, known for convenience as Zymotic diseases, in 1931 was 74, giving a mortality rate for this group of 0·24 per 1,000.

AVERAGE QUINQUENNIAL ZYMOTIC DEATH-RATES FROM 1886.

1886-90 ...	2·3	1906-10 ...	1·3	1926-30 ...	0·46
1891-95 ...	2·3	1911-15 ...	1·2	1931 ...	0·24
1896-1900...	2·0	1916-20 ...	0·4		
1901-1905...	1·7	1921-25 ...	0·5		

The Zymotic death-rate for the first quarter was 0·31 for the second 0·21; for the third 0·28; and for the fourth 0·19.

The diseases to be notified in Bradford are smallpox, chicken pox, cholera, plague, diphtheria, membranous croup, erysipelas, scarlet fever, measles and German measles, whooping cough, ophthalmia neonatorum, infective enteritis, acute poliomyelitis, cerebro-spinal fever, tuberculosis, acute polio-encephalitis, encephalitis lethargica, pemphigus neonatorum, pneumonia and influenzal pneumonia, malaria, dysentery, and the fevers known by any of the following names, typhus, typhoid, enteric, relapsing, continued or puerperal.

Diphtheria. Cases, 247; Deaths, 11; Fatality, per cent., 4·5.

MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Bradford	0·04	0·06	0·03	0·06	0·06	0·12	0·06	0·16	0·07	0·04
England and Wales	0·11	0·07	0·06	0·07	0·07	0·07	0·06	0·08	0·09	0·07

The number of cases of Diphtheria in 1931 was less than that for 1930, and the fatality rate lower. The sickness rate per 1,000 was 0·82. The cases were fairly evenly distributed throughout the city, the greatest number occurring in the Great Horton Ward, where 23 cases were notified, and in the Manningham, North Bierley East and Little Horton Wards, where 22, 19 and 18 cases occurred respectively.

CASES OF DIPHTHERIA MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases...	31	25	15	15	7	21	20	17	17	21	21	37

The greatest incidence of the disease fell on children over two years of age, and the highest death-rate on those under two years.

CASES AND DEATHS ACCORDING TO AGE.

	Under 1 yr.	1–2	2–3	3–4	4–5	5–6	6–7	7–8	8–9	9–10	10–15	15–20	Over 20	Total
Cases ...	8	8	15	14	20	19	14	17	19	9	55	13	36	247
Deaths	1	1	1	—	1	2	—	3	—	1	1	—	—	11
Fatality per cent.	12·5	12·5	6·7	—	5·0	10·5	—	17·6	—	11·1	1·8	—	—	4·5

The number of cases removed to hospital was 222, or 90·0 per cent. of the cases.

Supplies of diphtheria anti-toxin for the use of practitioners in the city are kept at the Fever Hospital and at the Health Department. All patients admitted to the City Fever Hospital suffering from diphtheria receive a therapeutic dose of anti-toxin. The Schick test is not employed in the city.

Enteric Fever. Cases notified, 6; Deaths, 2; Fatality per cent., 33·3.

MORTALITY RATES PER 1,000 IN PREVIOUS YEARS.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Bradford	0·01	0·02	0·01	0·01	0·01	0·01	0·01	0·01	0·01	0·01
England and Wales	0·01	0·01	0·01	0·01	0·01	0·01	0·01	0·01	0·01	0·01

The monthly incidence of the disease is shown as follows :—

CASES OF ENTERIC FEVER MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases...	1	—	—	2	—	—	—	—	1	1	—	1

The sickness rate in Bradford was 0·02 per 1,000 of the population.

The number of cases removed to hospital was 4.

Scarlet Fever. Cases, 920; Death, 1; Fatality per cent., 0·11.

MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Bradford	0·09	0·02	0·01	0·02	—	0·01	0·04	0·05	1·40	0·01
England and Wales	0·04	0·03	0·02	0·03	0·02	0·01	0·01	0·02	0·02	0·01

The number of cases of Scarlet Fever notified in 1931 was 362 less than in 1930. The sickness rate per 1,000 was 3·06. The greatest number of cases occurred in the Bradford Moor Ward where 131 cases were notified, and in Great Horton, North Bierley West and East Bowling Wards, where 83, 63 and 62 cases occurred respectively.

CASES OF SCARLET FEVER MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases...	74	102	87	64	74	114	95	57	90	50	66	47

The cases and deaths classified according to age are seen in the following Table :—

CASES AND DEATHS ACCORDING TO AGE.

	Under 1 year	1-5 years	5-15 years	15-25 years	25-45 years	45-65 years	Over 65 years	Total
Cases	3	241	527	89	56	4	—	920
Deaths	—	—	1	—	—	—	—	1
Fatality per cent. ...	—	—	0·2	—	—	—	—	0·1

The number of cases removed to hospital was 733, or 79·7 per cent. of the cases. The Dick test is not employed in the city.

Small-pox. Twenty-six cases of Small-pox occurred in the city in 1931.

The following Table gives the vaccination returns in Bradford since 1915.

VACCINATION STATISTICS.

Year	1 Births	2 Vaccinated	3 Insusceptible	4 Dead	5 Con. Objector	6 Postponed	7 Removed	8 Unaccounted	Percentage not Vaccinated including Columns 5, 6, 7, 8
1915	4,249	1,559	6	365	1,720	136	322	141	54·6
1916	4,028	1,337	6	355	1,767	103	278	182	57·7
1917	3,262	1,068	18	287	1,418	66	251	154	57·9
1918	3,221	885	7	288	1,367	92	310	272	63·4
1919	3,310	953	5	258	1,551	93	284	166	63·3
1920	5,208	1,363	9	370	2,609	109	444	304	66·6
1921	4,878	1,230	5	360	2,583	130	263	350	68·2
1922	4,415	1,231	6	277	2,413	91	231	166	65·7
1923	4,447	1,495	14	257	2,182	103	249	147	60·3
1924	4,172	1,336	14	274	1,855	129	376	188	61·1
1925	4,095	1,184	15	265	1,968	101	310	252	64·2
1926	3,892	1,325	32	271	1,727	76	244	108	55·9
1927	3,584	1,228	16	223	1,700	61	231	125	59·1
1928	3,707	1,147	12	208	1,930	32	243	135	63·1
*1929	4,495	1,119	35	233	2,593	67	240	202	69·1
1930	4,479	1,070	8	246	2,676	55	255	169	70·4

*The figures for that part of Bradford included in the old North Bierley Union are not available for those years prior to 1929.

Diarrhœa. Deaths, 53; Mortality per 1,000, 0·17.

The number of deaths from diarrhœa has now greatly diminished, and the rate continues low.

Deaths in Each Ward from Diarrhœal Diseases in 1931.

Ward	Certified as Infective			Not Certified as Infective			Total Deaths from Diarrhœal Diseases		
	Under 2 yrs.	Others	Total	Under 2 yrs.	Others	Total	Under 2 yrs.	Others	Total
Allerton ...	—	—	—	1	—	1	1	—	1
Bolton ...	—	—	—	—	—	—	—	—	—
Bradford Moor	—	—	—	1	—	1	1	—	1
Clayton ...	—	—	—	—	—	—	—	—	—
East	—	—	—	4	2	6	4	2	6
East Bowling	—	—	—	3	4	7	3	4	7
Eccleshill ...	—	—	—	1	—	1	1	—	1
Exchange ...	—	—	—	1	4	5	1	4	5
Great Horton	—	—	—	1	4	5	1	4	5
Heaton ...	—	—	—	—	2	2	—	2	2
Idle	—	—	—	—	—	—	—	—	—
Listerhills ...	—	—	—	1	—	1	1	—	1
Little Horton	—	—	—	—	3	3	—	3	3
Manningham	—	—	—	—	1	1	—	1	1
North ...	—	—	—	2	2	4	2	2	4
North Bierley East... ...	—	—	—	2	—	2	2	—	2
North Bierley West ...	—	—	—	—	—	—	—	—	—
South ...	—	—	—	4	3	7	4	3	7
Thornton ...	—	—	—	1	2	3	1	2	3
Tong	—	—	—	—	—	—	—	—	—
West	—	—	—	1	1	2	1	1	2
West Bowling	—	—	—	1	1	2	1	1	2
City	—	—	—	24	29	53	24	29	53

Twenty-two, or 41·7 per cent. of the total deaths, occurred under one year of age.

Deaths at Various Age Periods.

	Months			Total under One Year	Years						
Age Periods...	0-3	3-6	6-12	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65 and over
Deaths ...	10	7	5	22	2	4	2	—	2	10	11

Deaths Occurring Month by Month.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Number of Deaths ...	5	2	4	1	4	4	3	3	10	5	7	5	53

The number of notifications of cases of zymotic enteritis received in 1931 was 11.

Puerperal Fever and Puerperal Pyrexia. Cases, 99; Deaths, 8; Fatality per cent., 8·1.

Record of Previous Years.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Cases	35	30	20	22	27	74	77	103	75	99
Deaths	13	9	4	4	10	12	10	7	15	8
Fatality per cent.	37·1	30·0	20·0	18·2	37·0	16·2	13·0	6·8	20·0	8·1
Number of live births to each death	402	588	1252	1207	471	360	442	621	291	510

Measles and German Measles. Cases notified, 3,658; Deaths, 30; Mortality per 1,000, 0·10.

Whooping Cough. Cases notified, 568; Deaths, 6; Mortality per 1,000, 0·02.

Erysipelas. Cases, 141; Deaths, 10; Fatality per cent., 7·1.

RECORD OF PREVIOUS YEARS.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Cases	210	206	159	136	142	152	175	179	157	141
Deaths	12	23	6	9	10	15	9	17	8	10
Fatality per cent.	5·7	11·2	3·8	6·6	7·0	9·8	5·2	9·5	5·1	7·1

Influenza. Deaths, 124; Mortality rate per 1,000, 0·41.

RECORD OF PREVIOUS YEARS.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Deaths	141	113	159	96	43	152	48	268	34	124

Anthrax. Cases, 1; Death, 0; Fatality per cent., 0·0.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Cases	6	2	6	8	5	4	5	—	3	1
Deaths	0	1	2	0	0	0	1	—	1	—
Fatality per cent.	0·0	50·0	33·3	0·0	0·0	0·0	20·0	—	33·3	0·0

(B) TUBERCULOSIS.

The number of deaths from all forms of tuberculosis in 1931 was 281, giving a mortality rate of 0.93 per 1,000.

Record of Previous Years.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Deaths	297	297	311	284	292	292	288	292	265	281

Mortality Rate per 1,000 in Previous Years.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Bradford	1·02	1·02	1·05	0·98	1·01	1·00	1·00	1·01	0·89	0·93
England & Wales	1·12	1·03	1·06	1·04	0·96	0·97	0·93	0·96	0·90	—

During the past thirty years there has been a progressive reduction in the death-rate from all forms of tuberculosis; this is well seen in the following Table, which shows the average mortality rate per 1,000 for the five-yearly periods; 1901-1905 being 98 per cent. above that of last year.

Average Mortality Rate per 1,000 from Tuberculosis in Bradford for Periods of Five Years from 1901.

Periods	1901-1905	1906-1910	1911-1915	1916-1920	1921-1925	1926-1930	1931
Pulmonary	1·31	1·19	1·19	1·16	0·84	0.81	0·79
Other Forms	0·53	0·46	0·34	0·30	0·21	0·17	0·14
All Forms	1·84	1·65	1·53	1·46	1·05	0·98	0·93

Public Health Act, 1925, *Section* 62. No action was taken under this section during the year.

New Cases and Mortality during 1931.

Age Periods	NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0 to 1	—	—	1	—	1	1	1	2
1 to 5	3	4	4	5	—	1	2	6
5 to 10	3	8	21	11	—	1	2	4
10 to 15	8	3	12	11	1	—	—	—
15 to 20	14	22	9	8	10	15	—	—
20 to 25	26	29	6	7	10	17	4	1
25 to 35	40	45	7	5	25	12	1	2
35 to 45	40	31	1	1	30	20	5	3
45 to 55	38	22	3	3	33	12	1	6
55 to 65	21	10	2	—	25	7	1	2
65 and upwards	7	2	—	—	11	5	1	—
Totals ...	200	176	66	51	146	91	18	26

Of the deaths occurring from all forms of tuberculosis in 1931 15 per cent. were not notified.

(A) *Pulmonary Tuberculosis.* Deaths, 237; Mortality rate per 1,000, 0·79.

Record of Previous Years.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Deaths	225	234	261	236	242	233	237	243	226	237

Mortality Rate per 1,000 in Previous Years.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Bradford	0·77	0·80	0·88	0·81	0·84	0·80	0·82	0·84	0·76	0·79
England & Wales	0·89	0·80	0·80	0·83	0·77	0·79	0·76	0·79	0·74	

Considering the deaths in relation to sex the death-rate from pulmonary tuberculosis was in 1931 among males 1·06 per 1,000, and among females 0·56 per 1,000. The chart on page 51 shows the male and female death-rates from pulmonary tuberculosis for the past twenty-five years in Bradford and shows that the difference in the rates in the two sexes is maintained. The very low rate among females as compared with that among males is to some extent characteristic of Bradford figures, and is at the moment a phenomenon rather difficult to account for.

Of the deaths occurring in 1931, 12 per cent. were not notified. The notifications received numbered 439, of which 376 were notified for the first time. This is an increase in primary notifications over the previous year.

(B) *Other Forms of Tuberculosis.* Deaths, 44; Mortality rate per 1,000, 0·14.

RECORD OF PREVIOUS YEARS.

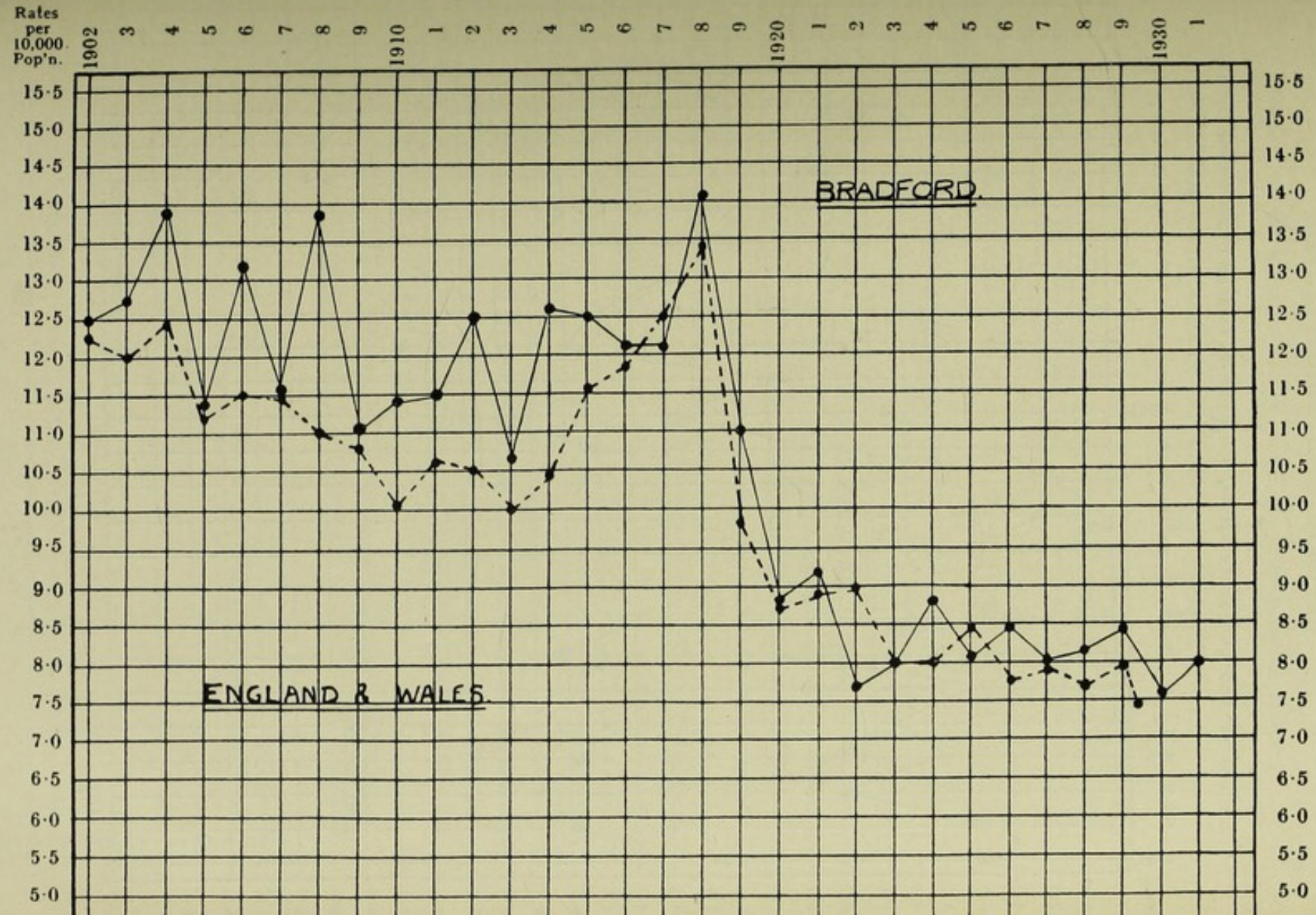
	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Deaths	72	63	50	48	50	59	51	49	39	44

MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

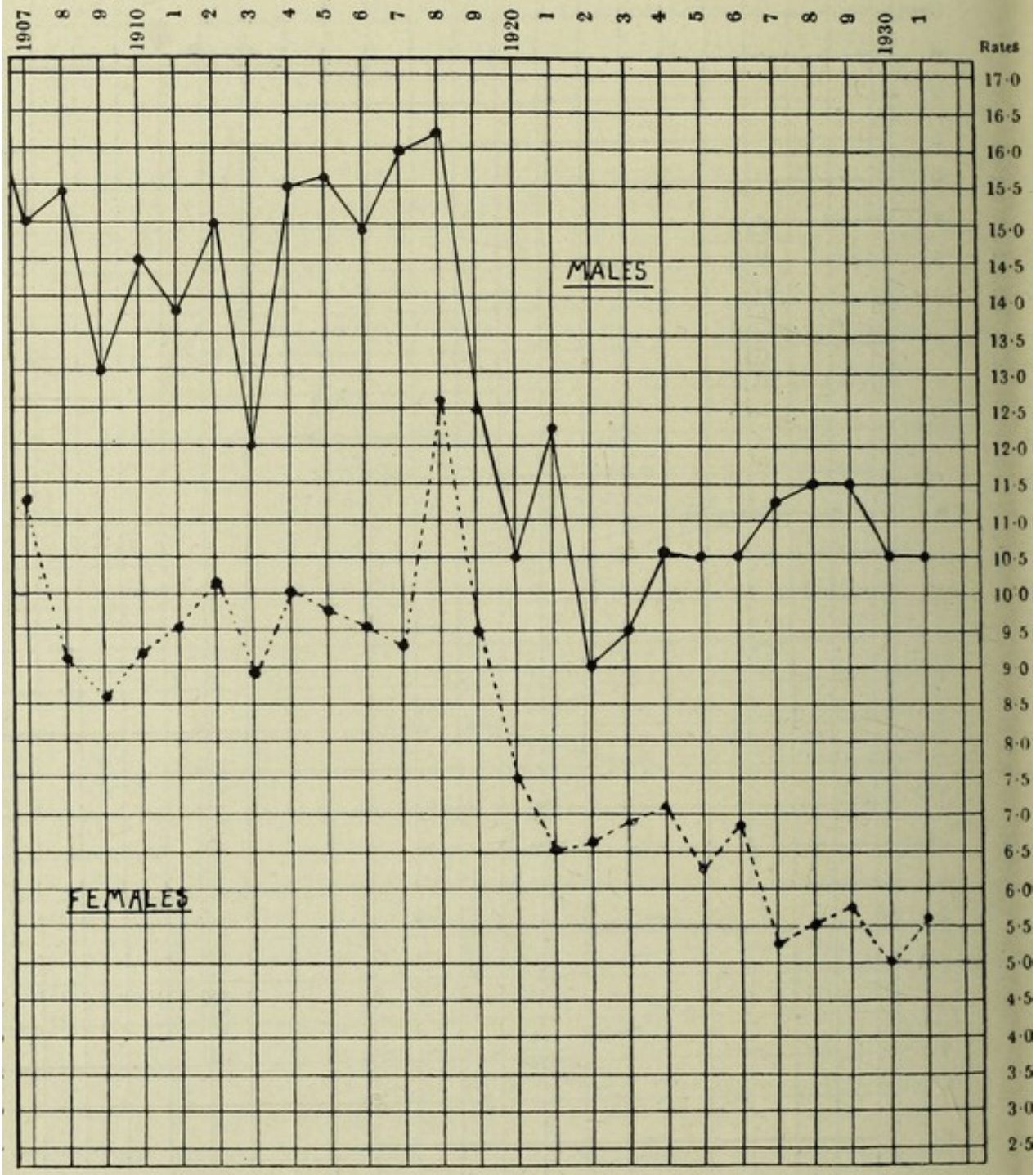
	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Bradford	0·25	0·22	0·17	0·17	0·17	0·20	0·18	0·17	0·13	0·14
England & Wales	0·23	0·23	0·22	0·21	0·19	0·18	0·17	0·17	0·16	

The table on page 47 shows how marked the fall in the death-rate from non-pulmonary tuberculosis has been, the rate for last year being only 26 per cent. of that of the average for the years 1901-1905. The fall may be associated with several causes, all of which have, no doubt, had an effect in bringing about this result. These may be shortly stated as follows :—(a) The improvement in the nutrition in infancy and childhood; (b) the increased purity of the milk supply and its greater freedom from tuberculous infection; and (c) the lessened incidence of tuberculosis amongst women referred to above. The number of cases notified during the year of other forms of tuberculosis was 117. This is a decrease of 58 notifications over that of the previous year.

POPULATION IN ENGLAND AND WALES AND BRADFORD, 1902-1931.



DEATH-RATES FROM PULMONARY TUBERCULOSIS PER 10,000 OF THE POPULATION IN BRADFORD ACCORDING TO SEX.



ANTI-TUBERCULOSIS CENTRE.

Report by H. VALLOW, M.D., D.P.H., Tuberculosis Officer.

The Anti-Tuberculosis Centre, or Tuberculosis Dispensary, is open for consultation on six sessions per week, one being a general evening session and one an afternoon session set apart specially for children.

The number of attendances at the Anti-Tuberculosis Centre during the year was 4,473; the number of new cases seen for the first time during the year was 736, of whom 452 were suffering from tuberculosis and 284 contacts.

The diagnosis arrived at in these cases is seen in the following tables :—

	Adults		Children		Total	
	Male	Female	Male	Female	Male	Female
NEW CASES:—						
(*a*) Definitely Tuberculous... ...	109	106	29	24	138	130
(*b*) Diagnosis not completed ...	3	2	3	3	6	5
(*c*) Non-Tuberculous	70	56	26	21	96	77
Total	182	164	58	48	240	212

	Adults		Children		Total	
	Male	Female	Male	Female	Male	Female
CONTACTS:—						
(*a*) Definitely Tuberculous... ...	24	28	12	8	36	36
(*b*) Diagnosis not completed ...	—	1	1	1	1	2
(*c*) Non-Tuberculous	59	53	48	49	107	102
Total	83	82	61	58	144	149

The number of cases transferred from other areas and cases returned after discharge in previous years was 12, and the number transferred to other areas, cases not desiring further assistance under the scheme, and cases " lost sight of," was 97.

The number of cases written off the Dispensary Register as recovered, diagnosis not confirmed, or non-tuberculous, is given in the following table :—

	Adults		Children		Total	
	Male	Female	Male	Female	Male	Female
(*a*) Recovered:—						
Pulmonary Cases...	10	8	4	3	14	11
Non-Pulmonary Cases	10	7	6	5	16	12
(*b*) Diagnosis not confirmed or non-tuberculous	134	110	80	71	214	181
Totals	154	125	90	79	244	204

The number of persons on the Dispensary Register on December 31st, 1931, is shown in the following table :—

	Pulmonary				Non-Pulmonary				Total			
	Adults		Children		Adults		Children		Adults		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
(*a*) Definitely tuberculous	447	418	105	90	56	55	189	148	503	473	294	238
(*b*) Diagnosis not completed	—	—	—	—	—	—	—	—	3	3	4	4

The health visitors have paid 4,473 visits to the homes, for Dispensary purposes.

A special survey of cases has taken place during the year; the Tuberculosis Officer has had 1,040 consultations with medical practitioners and has visited the homes of 1,120 patients.

Three thousand and thirty-eight specimens of sputum have been examined, and 355 X-ray examinations made in connection with Dispensary work.

The number of persons on the Dispensary Register on January 1st, was 1,469, and on December 31st, 1,522.

Residential Treatment.

Patients have been sent to the Sanatoria and Hospitals as required, and the following return shows the extent of this residential treatment. Institutions :—Grassington Sanatorium, Bierley Hall Hospital, and St. Luke's Hospital (Tuberculosis Section).

			In Institutions on Jan. 1	Admitted during the year	Discharged during the year	Died in the Institutions	In Institutions on Dec. 31
Number of doubtfully tuberculous cases admitted for observation	Adults	M.	2	21	18	—	5
		F.	8	27	33	—	2
	Children		10	13	19	—	4
	Total ...		20	61	70	—	11
Number of definitely tuberculous patients admitted for treatment	Adults	M.	87	286	226	62	85
		F.	65	226	169	48	74
	Children		46	101	107	2	38
	Total ...		198	613	502	112	197
Grand Total			218	674	572	112	208

The following table shows the results of observation of doubtfully tuberculous cases discharged from Residential Institutions during the year 1931.

Diagnosis on discharge from observation	For Pulmonary Tuberculosis						For Non-Pulmonary Tuberculosis						Totals		
	Stay under 4 weeks			Stay over 4 weeks			Stay under 4 weeks			Stay over 4 weeks					
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous ...	—	—	—	4	13	6	—	—	—	—	1	8	4	14	14
Non-tuberculous ...	3	3	3	7	10	2	1	—	—	—	—	—	11	13	5
Doubtful	2	4	—	1	2	—	—	—	—	—	—	—	3	6	—
Totals ...	5	7	3	12	25	8	1	—	—	—	1	8	18	33	19

The following table shows the immediate results of treatment of definitely tuberculous patients discharged from Residential Institutions during the year 1931.

Classification on admission to the Institution		Condition at time of discharge	Duration of Residential Treatment in the Institution															Grand Totals
			Under 3 months			3–6 months			6–12 months			More than 12 months			Totals			
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Pulmonary Tuberculosis	Class T.B. Minus	Quiescent	1	2	—	4	1	—	—	4	1	—	2	—	5	9	1	15
		Not Quiescent ...	11	6	—	3	2	—	2	1	—	—	1	—	16	10	—	26
		Died in Institution	1	1	—	—	—	—	1	—	—	—	1	—	2	2	—	4
	Class T.B. plus Group 1	Quiescent	—	—	—	1	—	—	3	—	—	—	—	—	4	—	—	4
		Not Quiescent ...	1	1	—	1	1	—	2	—	—	—	—	—	4	2	—	6
		Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. plus Group 2	Quiescent	1	1	—	1	—	—	1	1	—	1	2	—	4	4	—	8
		Not Quiescent ...	38	28	3	10	9	—	10	3	—	6	10	—	64	50	3	117
		Died in Institution	—	—	—	—	—	—	1	1	—	—	—	—	1	1	—	2
	Class T.B. plus Group 3	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Not Quiescent ...	73	35	12	11	14	2	7	5	—	3	2	1	94	56	15	165
		Died in Institution	45	32	—	5	3	1	2	6	—	1	3	—	53	44	1	98
Non-Pulmonary Tuberculosis	Bones and Joints	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Not Quiescent ...	10	3	7	—	1	2	—	—	4	—	—	—	10	4	13	27
		Died in Institution	5	—	—	—	—	—	—	—	—	—	—	—	5	—	—	5
	Abdominal	Quiescent	—	—	—	—	1	—	—	1	2	—	—	—	—	2	2	4
		Not Quiescent ...	1	2	—	—	—	—	1	—	1	—	—	—	2	2	1	5
		Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Other Organs	Quiescent	—	2	—	5	1	7	2	1	3	—	—	—	7	4	10	21
		Not Quiescent ...	9	10	5	2	1	5	—	1	11	—	—	4	11	12	25	48
		Died in Institution	—	1	1	—	—	—	—	—	—	—	—	—	—	1	1	2
	Peripheral Glands	Quiescent	—	2	—	1	2	4	1	2	6	—	—	3	2	6	13	21
		Not Quiescent ...	3	7	11	—	—	5	—	—	7	—	1	1	3	8	24	35
		Died in Institution	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1

GRASSINGTON SANATORIUM.

W. M. Cumming, M.D., Ph.D., D.P.H., Medical Superintendent.

The beds are used for those cases of pulmonary and non-pulmonary forms of Tuberculosis in which there is reasonable prospect of cure or considerable improvement.

Admissions and Discharges, 1931.

	Adults		Children		Total	
	M.	F.	M.	F.	M.	F.
Remaining 31/12/30	43	43	24	19	67	62
Admitted	88	73	39	22	127	95
Discharged	79	74	45	30	124	104
Died	6	4	—	—	6	4
Remaining 31/12/31	46	38	18	11	64	49

Of the adult cases discharged, 8 men and 9 women stayed under one month. The reasons for this short stay were : 4 men and 6 women took their discharge against medical advice, 2 women (non-tuberculous) were certified fit for work, 2 men were transferred to St. Luke's Hospital for surgical and special treatment, and 2 men and 1 woman returned home for personal reasons. Amongst the adult males 60 had well-established pulmonary tuberculosis, the tubercle bacillus being found in 50, but not 10, and 10 had other forms of tubercle; amongst the adult females 42 had well-established pulmonary tuberculosis, the tubercle bacillus being found in 28, but not in 14, while 16 had other forms of tubercle. Amongst the children, 19 boys and 14 girls had intrathoracic tubercle.

Pulmonary Tuberculosis.

GAIN IN WEIGHT.

	Adults				Children	
	M.		F.		M.	F.
	T.B.+	T.B.−	T.B.+	T.B.−		
Average stay in days ...	203	97	330	200	217	269
Average age	37	27	28	25	9	8
Average gain in weight	5 3/16	10 6/16	11 7/16	10 7/16	7 11/16	10 15/16

Of the male adults, 45 gained weight, 7 lost weight, 2 were too ill to be weighed, and 6 died. Of the female adults, 30 gained weight, 4 lost weight, 4 were too ill to be weighed, and 4 died.

All the children except one boy gained in weight.

The capacity for work of the cases of pulmonary tuberculosis discharged in 1931 is shown below :—

	T.B.+		T.B.−		Total	
	M.	F.	M.	F.	M.	F.
Full Work	11	6	9	10	20	16
Light Work	12	2	—	3	12	5
Fit for Exercise	10	4	1	1	11	5
Unfit for Work	11	12	—	—	11	12
	44	24	10	14	54	38
Died in Institution	6	4	—	—	6	4

Other forms of Tuberculosis.	Male.	Female.
Average stay in days	155	161
Average age	22	24
Average gain in weight	9 12/16	10 10/16

In all, 528 sputum examinations were made, 207 by the ordinary direct method, and 321 after concentration. In 14 instances tubercle bacilli were demonstrated in the sputum after concentration when results had been negative with the direct method. During 1931 the dentist visited the Sanatorium periodically, and extracted 295 teeth, filled 76 teeth, scaled 8 teeth, made 13 dentures, and carried out various minor operations.

The results of treatment of the children are shown on the following table :—

Result of Treatment of Children	Quiescent		Improved		No Material Improvement		Died		Total	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
(1) Intrathoracic Tubercle ...	7	4	12	10	–	–	–	–	19	14
(2) Other Forms...	7	8	11	7	–	–	–	–	18	15
(3) SuspectedCases	–	–	2	–	–	1	–	–	2	1
Totals ...	14	12	25	17	–	1	–	–	39	30

All children who are fit were recommended on discharge to go to the Open-Air School.

The table showing results of treatment in adults is given on the following page, and from this table it is clear that the great majority in all the A. sub-classes and I.B and II.B are likely to improve with sanatorium treatment. Of the cases in III.B, about 83 per cent. of them will benefit, but very few cases in any of the C. sub-classes are likely to improve.

Table Showing Result of Treatment.

Stage	Cases with Tubercle Bacilli in Sputum										Cases with Tubercle Bacilli Absent										Total									
	Quiescent		Improved		No Material Improvement		Died		Total		Quiescent		Improved		No Material Improvement		Died		Total		Quiescent		Improved		No Material Improvement		Died		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
I A. ...	4	—	—	—	—	—	—	—	4	—	4	2	4	2	—	—	—	—	8	4	8	2	4	2	—	—	—	—	12	4
II A. ...	4	3	12	5	—	—	*1	—	17	8	—	6	1	3	—	—	—	—	1	9	4	9	13	8	—	—	1	—	18	17
III A. ...	—	—	6	1	1	—	—	1	7	2	—	—	1	—	—	—	—	—	1	—	—	—	7	1	1	—	—	1	8	2
I B. ...	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	1
II B. ...	—	1	1	1	—	—	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	1	1	1	—	—	—	—	1	2
III B. ...	—	—	8	7	—	3	—	—	8	10	—	—	—	—	—	—	—	—	—	—	—	—	8	7	—	3	—	—	8	10
I C. ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
II C. ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
III C. ...	—	—	2	—	6	3	5	3	13	6	—	—	—	—	—	—	—	—	—	—	—	—	2	—	6	3	5	3	13	6
Total ...	8	4	29	14	7	6	6	4	50	28	4	8	6	6	—	—	—	—	10	14	12	12	35	20	7	6	6	4	60	42

*This man died in hæmoptysis.

NOTE ON CLASSIFICATION.—Pulmonary Tuberculosis cases in Adults are sub-divided into two classes:—(1) Tubercle Bacilli present in the sputum; (2) Tubercle Bacilli absent. Each of these classes is further sub-divided according to the extent of the lesion in the lung and the severity of the symptoms. For the extent of the lesion a modified Turban-Gerhardt system is used, Stage 1 being a localised lesion involving if both lungs, not more than the extent of the lung above the clavicle in front, and above the spine of the scapula behind; whilst if only one lung is affected, a lesion extending not lower than the second rib in front and the spine of the scapula behind is indicated. Stage 2 indicates a slight lesion up to one lobe, or a severe lesion of half a lobe. Stage 3 includes all other cases. The letters A., B. and C. are used to denote severity of symptoms in each case. A denotes constitutional disturbance absent or slight; B, intermediate between A and C; C, severe constitutional disturbance or deterioration. Constitutional disturbance is in each case estimated by degree of pyrexia, tachycardia, dyspnœa, malnutrition.

Research.

During the year much time has been spent on research and laboratory investigation.

Tubercle bacilli of the bovine type have been isolated from 14 patients suffering from pulmonary tuberculosis; 6 from Bradford, 6 from other parts of the North of England, and 2 from London. This finding is of some importance as the literature contains records of only four previous instances in England in which tubercle bacilli of bovine origin have been demonstrated in the sputum. These recorded cases occurred in the South of England over a period of many years and represent a percentage of only rather less than one in the investigation of Dr. A. Stanley Griffith. In Scotland the percentage of bovine strains isolated from sputum has recently been shown to be about four (chiefly by Dr. W. T. Munro).

Of the six Bradford cases, three are already dead and only in one case are the chances of recovery good; this finding confirms the slowly forming opinion that the bovine type is not, as Robert Koch believed, relatively innocuous to man.

These six Bradford cases represent three per cent. of the Bradford patients investigated. If this figure is at all representative of even the *known* phthisical population of Bradford then there are in the town not less than thirty people coughing up bovine tubercle bacilli. A further highly significant point is that two of these cases have been known to be expectorating sputum containing tubercle bacilli in large numbers for periods of not less than six and ten years respectively. It therefore becomes increasingly more difficult to ignore the possibility of human-to-human infection with the bovine type of the bacillus. The obvious corollaries are that the eradication of tuberculosis in the bovine population will not of necessity lead to the disappearance of human tuberculosis due to the bovine type of the bacillus and that human-to-bovine infection with the bovine type is by no means impossible.

An investigation has also been instituted with the object of rendering more efficient the laboratory diagnosis of pulmonary tuberculosis chiefly in the direction of expediting it and of making " negative " reports of more value. The methods being investigated involve the concentration by various means of " negative " specimens and attempts to cultivate tubercle bacilli from them. It is intended to determine whether it will be possible to dispense with the relatively costly biological test and, more importantly, it is hoped that the method evolved will render it possible to lower the cost of anti-tuberculosis administration by reducing the number of patients admitted to institutions " for observation." This investigation will probably take another two years to complete.

BIERLEY HALL HOSPITAL.

	Men.	Women.	Total.
Admissions	63	53	116
Discharges	48	32	80
Deaths	15	20	35
No. of patient days	9,088	8,395	17,483
Average No. of beds occupied...	24·9	23·0	47·9
Pulmonary cases			107
Non-Pulmonary cases			4
Observation cases			5

Of the cases discharged, 38 men and 37 women showed some improvement in their condition. Although the number of admissions were lower than the previous year, the average stay in hospital was much longer, especially amongst the women; the average number of beds occupied and the total number of the patient days was rather more.

Of the cases discharged during the year, 6 men and 5 women were in Stage I. of the disease, 7 men and 13 women in Stage II., 44 men and 32 women in Stage III., while 3 men and 2 women were observation cases. There were 3 men and 1 woman non-pulmonary cases, 1 man suffering from tubercular peritonitis, 1 man from a tubercular hip joint, 1 man from lupus of the face, and 1 woman suffering from tuberculosis of the larynx. There were 75 cases discharged improved, 38 men and 37 women.

The year's record bears out the usual experience of marked improvement in the early type of case, but it is also noteworthy that a large number of advanced cases improve and gain weight, especially in the weeks immediately following admission. Food is one of the most important factors in the treatment of this class of patient.

(C). VENEREAL DISEASES.

The Centre at the Municipal General Hospital is well equipped, and conveniently situated so as to serve the whole area. In the Municipal General Hospital itself beds are provided for indoor treatment of venereal disease in its various forms, and the provision made is adequate.

The number of new cases from the area of the City of Bradford and the attendances at the Venereal Diseases Centre since its opening are shown in the following table :—

Year	Venereal Diseases		Non-Venereal Diseases		Attendances	
	Males	Females	Males	Females	Males	Females
1918	200	175	34	41	1,604	1,639
1919	583	235	79	42	10,990	4,011
1920	627	311	121	31	21,129	9,174
1921	457	184	144	29	28,676	11,390
1922	403	164	126	31	23,162	7,863
1923	359	134	110	44	21,398	7,565
1924	315	123	103	50	17,390	5,615
1925	248	142	143	42	13,294	4,859
1926	374	119	43	29	20,095	4,957
1927	312	115	99	53	20,116	5,369
1928	344	122	141	83	20,972	5,253
1929	308	145	156	116	17,955	4,654
1930	311	145	165	110	19,215	6,230
1931	236	97	127	73	16,738	4,333

	Males	Females
1. Number of persons dealt with at the Out-patient Clinic for the first time and found to be:—		
Suffering from Syphilis	49	70
Suffering from Soft Chancre	1	—
Suffering from Gonorrhœa	186	27
Not suffering from Venereal Disease	127	73
Total	363	170
2. Number of persons discharged from the Out-patient Clinic after completion of treatment for:—		
Syphilis	15	18
Soft Chancre	—	—
Gonorrhœa	167	24
Total	182	42
3. Number of persons who ceased to attend the Out-patient Clinic without completing treatment and who were suffering from:—		
Syphilis	53	78
Soft Chancre	—	—
Gonorrhœa	44	3
Total	97	81
4. Total attendances of all persons at the Out-patient Clinic who were:—		
Suffering from Syphilis	2,338	2,302
Suffering from Soft Chancre	17	—
Suffering from Gonorrhœa	13,153	1,494
Not found to be suffering from Venereal Disease ...	1,230	537
Total	16,738	4,333
5. Aggregate number of "In-patient days" of treatment given to persons suffering from:—		
Syphilis	69	236
Soft Chancre	8	—
Gonorrhœa	155	260
Not suffering from Venereal Disease	28	35
Total	260	531
6. Number of persons treated with Salvarsan Substitutes ...	131	126

7. Number of doses of Salvarsan Substitutes given:—

Dose	Norvarseno-billon	Silber Salvarsan	Sulpharsenol	Sulphostab
·05 grm.	38	—	—	—
·06 ,,	—	—	1	—
·10 ,,	43	2	—	—
·12 ,,	—	—	41	—
·15 ,,	206	27	—	—
·18 ,,	—	—	18	—
·20 ,,	—	32	—	—
·24 ,,	—	—	13	—
·30 ,,	378	18	11	75
·36 ,,	—	—	5	—
·42 ,,	—	—	5	—
·45 ,,	690	—	—	132
·48 ,,	—	—	27	—
·60 ,,	429	—	—	53
Total ...	1,784	79	121	260

8. Examinations of Pathological Material:— Specimens from persons attending at the Treatment Centre which were examined at the Municipal Laboratory:—	Number
For detection of Spirochaetes	22
For detection of Gonococci	946
For Wassermann reaction...	607
For Khan reaction...	185
Total	1,760

Authorities responsible for patients:—

Area	New Cases	Number of Attendances at Out-patient Clinic	Aggregate number of In-patient Days	No. of doses of Salvarsan Substitutes used in Treatment Centre
Bradford ...	533	21,071	791	2,244
West Riding ...	105	3,420	82	321
Total	638	24,491	873	2,565

Number of out-patients remaining under treatment :—

	Bradford.	West Riding Area.
Male	290 ...	59
Female	253 ...	38
Total	543 ...	97

Number of persons receiving in-patient treatment :—

Male	15 ...	—
Female	23 ...	1
Total	38 ...	1

Pathological Examinations made in the Laboratory during the twelve months ending on the 31st December, 1931 :—

Nature of Test	For Treatment Centre	For Practitioners
	No. of Tests	No. of Tests
For detection of Spirochaetes	22	9
For detection of Gonococci	1344	749
For Wassermann reaction...	731	3311
Other examinations ...	—	69
Totals	2097	4138

The number of doses of salvarsan supplied free to medical practitioners in Bradford by the Local Authority during 1931 was 266.

The following tables showing figures for the past four years seem to show that the prevalence of venereal disease is somewhat diminishing.

NUMBERS.

	1928	1929	1930	1931
Ophthalmia neonatorum cases notified ...	35	34	40	27
Congenital syphilis deaths registered ...	3	6	2	1
Still Birth cases notified	200	183	195	201

PROPORTIONS PER 1,000 BIRTHS.

	1928	1929	1930	1931
Ophthalmia neonatorum cases notified ...	7·9	7·8	9·1	6·6
Congenital syphilis deaths registered ...	0·68	1·38	0·46	0·25
Still Birth cases notified	45·2	42·1	44·6	50·5
Illegitimate Births registered	54·3	50·6	59·2	60·0

(D) OTHER DISEASES.

Malignant Diseases. Deaths 486; Mortality rate per 1,000, 1·58.

RECORD OF PREVIOUS YEARS.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Deaths	411	374	444	406	458	450	440	445	480	486

MORTALITY RATES PER 1,000 FROM MALIGNANT DISEASES SINCE 1922.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Bradford	1·41	1·29	1·50	1·40	1·59	1·53	1·52	1·54	1·61	1·58
England and Wales	1·23	1·41	1·30	1·34	1·36	1·38	1·42	1·44	1·45	

As will be seen in the following table, deaths from malignant disease showed an increase last year in the female but not in the male sex.

MALIGNANT DISEASE IN BRADFORD ACCORDING TO SEX AND SITE.

CRUDE ANNUAL DEATH RATES PER 1,000

Situation of Disease	1930			1931		
	Males	Females	Persons	Males	Females	Persons
Buccal Cavity	0·20	0·01	0·10	0·18	0·01	0·09
Pharynx, œsophagus, stomach, liver and annexa	0·55	0·36	0·45	0·49	0·56	0·53
Peritoneum, intestines, and rectum	0·43	0·44	0·44	0·38	0·26	0·32
Female genital organs ...	—	0·31	0·31	—	0·44	0·44
Breast	—	0·30	0·30	—	0·33	0·33
Skin	0·03	0·03	0·03	0·03	—	0·03
Other or unspecified organs	0·34	0·20	0·26	0·33	0·18	0·25
Total	1·55	1·66	1·61	1·41	1·79	1·58

The table on page 73 gives the number of deaths at different age periods in Bradford during the past four years according to the situation of the disease, and sex. This table shows that a very large majority of deaths from malignant disease now arise from affections of one or other of four sites—œsophagus and stomach, 425; rectum and colon, 373; uterus, 189; and breast, 191. It is, therefore, seen that by far the greatest number of deaths in the city from cancer occur from malignant disease affecting some part of the alimentary tract.

The table on page 72 gives the deaths for 1931 according to occupation, while the following table shows the deaths among occupied males during the past five years 1927-1931.

CANCER AND OCCUPATION.

Deaths, 1927-1931—Occupied Males.

Occupation	Approximate number employed	Buccal Cavity	Stomach, Liver, etc.	Peritoneum, Intestines, and Rectum	Skin	Others	Total
Combing	3,500	9	31	13	1	17	71
Dyeing	4,500	7	27	14	2	11	61
Other Textiles ...	15,000	21	71	47	5	53	197
Engineering ...	10,000	13	41	36	4	27	121
Transport Workers	9,500	9	27	11	2	14	63
Building Trades ...	8,000	15	31	22	—	22	90
Commercial Workers ...	10,000	16	45	29	3	33	126
Clerical Workers...	4,500	4	19	22	2	14	61
Other occupations	30,000	25	70	37	5	58	195

This table seems to show an increased incidence among combers and dyers, but this conclusion can only be accepted with reservation, as the numbers are small and the estimate of those employed loose, while no correction is made for age differences. The higher incidence is not seen in any particular location of the disease.

In 1931 there were 92 deaths from malignant disease in the Municipal General Hospital, St. Luke's; 29 in the Bradford Royal Infirmary; 9 in the Duke of York Home; and 7 in other institutions in Bradford. Although only 28% of the cases died in hospital, the proportion of cases of malignant disease which in the course of their illness are treated in hospital is very large.

CANCER—OCCUPATION AND SITE.

DEATHS, 1931.

MALES						FEMALES						
Occupation	Buccal Cavity	Stomach, Liver, etc.	Peritoneum, Intestines and Rectum	Skin	Others	Occupation	Breast		Genital Organs		Alimentary	Others
							Married	Unmarri'd	Married	Unmarri'd		
Woolcombing	1	6	4	—	4	Woolcombing ...	—	—	—	—	1	—
Dyeing	—	3	3	—	2	Spinning	—	2	—	1	2	—
Other Textiles	6	17	15	1	9	Weaving	—	4	—	1	4	1
Engineering	1	6	9	—	6	Other Textiles ...	—	—	—	3	1	1
Transport Workers... ...	1	4	2	—	3	Commercial ...	—	1	—	1	3	—
Building Trades	4	8	1	—	3	Clerical	—	1	—	—	1	1
Commercial	4	8	5	—	6	Domestic	43	2	64	2	127	26
Clerical	1	4	4	1	3							
Other Occupations... ...	7	11	8	2	10							
Total	25	67	51	4	46	Total ...	43	10	64	8	139	29

DEATHS FROM MALIGNANT DISEASE IN BRADFORD, 1928-1931.

Situation of Disease.	AGE AND SEX.																					
	—35		—40		—45		—50		—55		—60		—65		—70		—75		75—		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Tongue	—	—	—	—	1	1	—	—	5	1	4	—	13	1	8	—	7	2	4	1	42	6
Buccal Cavity (other parts)	1	—	—	—	—	—	2	—	7	—	6	1	9	2	12	2	10	1	5	1	52	7
Oesophagus	—	—	—	—	1	—	1	—	3	1	8	4	9	4	14	5	1	2	7	3	44	19
Stomach	3	1	1	5	5	6	10	14	14	11	31	21	31	30	44	39	30	35	13	18	182	180
Small Intestine ...	—	—	—	—	—	1	—	1	2	—	—	—	—	—	—	1	1	—	—	—	3	3
Rectum	—	—	1	—	2	—	4	3	10	3	8	8	15	7	16	7	9	15	8	9	73	52
Colon (other parts) ...	2	3	1	4	5	6	5	10	10	8	12	16	19	20	17	29	18	23	12	28	101	147
Liver	—	1	—	—	2	—	5	4	8	7	12	7	7	11	14	20	8	13	13	11	69	74
Pancreas	—	—	—	—	—	—	1	—	2	2	3	5	6	6	5	6	4	7	1	6	22	32
Kidney and Bladder	1	1	—	—	2	—	1	—	4	—	6	1	7	4	3	4	6	3	4	4	34	17
Larynx	1	—	—	—	—	1	—	1	1	3	6	—	5	1	4	1	3	2	—	1	20	10
Lungs	1	1	1	—	2	—	5	—	4	3	10	3	2	1	1	2	2	1	—	—	28	11
Skin	—	1	1	—	—	—	1	—	2	1	—	—	2	1	3	1	—	1	3	1	12	6
Prostate	—	—	—	—	—	—	—	—	1	—	1	—	5	—	9	—	3	—	3	—	22	—
Breast	—	4	—	11	—	14	—	22	—	25	—	32	—	26	—	20	—	23	—	14	—	191
Ovary	—	—	—	1	—	5	—	2	—	10	—	6	—	6	—	4	—	5	—	1	—	40
Uterus	—	7	—	13	—	22	—	33	—	27	—	25	—	20	—	18	—	12	—	12	—	189
Female Genitals (other parts)	—	—	—	—	—	2	—	3	—	2	—	6	—	3	—	2	—	2	—	1	—	21
Sarcomata (different parts)	6	5	1	1	3	1	2	1	2	1	5	3	4	—	3	—	2	1	—	3	28	16
All other situations ...	3	1	2	—	3	2	3	6	7	5	7	5	10	8	13	7	4	2	4	5	56	41
Totals ...	18	25	8	35	26	61	40	100	82	110	119	143	144	151	166	168	108	150	77	119	788	1062

Cancer Investigation in Bradford.—Much attention is paid to this subject in the city and records are accumulating as to the incidence, prognosis and effects of treatment which will throw some light on the position. The work has been done in close co-operation with the medical profession in practice, to whose active interest and sympathy its success is almost entirely due. A medical committee on Cancer was formed in 1925, locally representative of the various branches of the profession, and with their help a system of notification, investigation and following up of cases and suspected cases was inaugurated and considerable propaganda work undertaken.

Briefly put, the cancer scheme in Bradford aims at :—

(*a*) Continued observation of patients after operation.

(*b*) Continued observation of suspected cancerous conditions.

(*c*) Collection of data respecting the treatment of cancer.

(*d*) Educational effects on the public and Medical Profession.

Malignant disease, including suspected cases, is voluntarily notifiable, and practitioners are urged to notify all cases coming under their care. In a disease of this description considerable hesitation and difficulty is naturally felt by the practitioners in notifying, but there has been a gradual increase in the number of cases notified, last year 258 cases being reported as against 228 in 1930. In addition also the cases admitted to the hospitals and some nursing homes are reported, so that a considerable proportion of cases come under notice.

The following table shows the notifications received each year from general practitioners since 1928 and for comparison the number of deaths each year is set out in the table.

Year	Notifications			Deaths Total
	Male	Female	Total	
1928	95	58	153	440
1929	70	117	187	445
1930	105	123	228	480
1931	101	157	258	486
Totals	371	455	826	1,851

The number of deaths from malignant disease in Bradford in the year 1931 not notified during life was 381 or 78·8 per cent. of the total deaths in that year.

Taking in 1,264 other cases reported from hospitals and nursing homes, altogether 2,090 cases have been under notice during the past four years. Of these cases 740 or 35·4 per cent. were in such a state when first coming under notice that operation, X-ray or radium treatment was regarded as impracticable either alone or in combination, or was rejected by the patient himself. The following table shows the length of life after coming under notice of these 740 cases which were treated only in a simple palliative fashion.

CASES TREATED BY SIMPLE PALLIATIVE MEASURES.

Duration of Life After Being Brought Under Notice.

Still Alive		Died	
Under 6 months	90	Under 6 months	507
Over 6 months	28	Under 1 year	36
Over 1 year	31	Under 2 years	18
Over 2 years	21	Under 3 years	2
Over 3 years	7		
Total alive	177	Total died	563

Of the above 740 cases, 265 were reported from hospitals, etc., and 475 were notified by medical practitioners so that in more than 50 per cent. of the cases notified only simple palliative treatment was possible, but this proportion fell to 21 per cent. among the hospital reported cases.

Record has been kept of 1,162 cases which had undergone some active form of treatment and the duration of life of these cases after coming under observation is shown in the following table.

CASES TREATED BY ACTIVE MEASURES.

Duration of Life After Being Brought Under Notice.

Manner of treatment	Time in years from first coming under observation															
	Still Alive								Died							
	under 6 mos.	under 1	under 2	under 3	under 4	under 5	over 5	Total	under 3 mos.	under 6 mos.	under 1	under 2	under 3	under 4	over 4	Total
Radical Operation	5	40	28	26	27	14	12	152	43	29	62	50	22	8	—	214
Non-Radical Operation ...	—	21	14	7	8	6	3	59	168	52	65	22	13	4	1	325
Deep X-ray ...	3	30	9	3	4	1	1	51	20	7	15	3	—	—	—	45
Radium (from 1928 only) ...	36	42	55	25	—	—	—	158	32	39	33	12	—	—	—	116
Operation and Radium (from 1928 only) ...	2	1	8	6	3	2	—	22	1	1	9	6	—	2	1	20
Totals ...	46	134	114	67	42	23	16	442	264	128	184	93	35	14	2	720

When the details on the cases treated are considered the records show that the prospect of successful treatment in cancer is generally good when they come under observation sufficiently early in the disease. This is particularly so when the disease affects certain sites, for example the rectum or large bowel, the breast and the uterus. Neglect of symptoms by the patient and delay in securing treatment are undoubtedly great factors in bringing about fatal results from malignant disease. In the present state of our knowledge these seem to be the two most easily controllable factors in the prevention of cancer mortality. Facilities for more efficient treatment have been greatly increased in recent years by advances in surgery, radium and X-rays, but every means of treatment known now, or hereafter to be discovered, is bound to fail among patients who neglect to observe significant symptoms or who unreasonably delay to secure adequate treatment. There is now no good reason for the fatalism and deep-rooted feeling of helplessness still so prevalent and continuous propaganda and public enlightenment are necessary to counteract their evil effects.

In this city there is developing a close co-ordination between the various agencies dealing with this disease and the practitioners, the surgeons, the radium and X-ray specialists, the physicians and the pathologists are all playing their part. No comparison can profitably be made as to the results of types of treatment as cases have freely passed from one to the other according to their condition from time to time. The cancer arrangements are almost unconsciously definitely taking shape as a combined and co-operative effort to secure for the sufferers the maximum possible benefit. At the end of 1931 there were 494 cases of cancer treated and untreated under observation in the city; of these, 7 had come to notice in 1925, 14 in 1926, 17 in 1927, 36 in 1928, 81 in 1929, 121 in 1930, and 218 in 1931. The number of observation cases that died during the year was 59, the number attending clinics was 238, and the number being specially reported on by medical practitioners 110.

Respiratory Diseases. Deaths, 503; Mortality rate per 1,000, 1·67.

DEATHS FROM BRONCHITIS AND PNEUMONIA IN PREVIOUS YEARS.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Bronchitis ...	413	397	467	407	297	407	388	523	142	190
Pneumonia ...	256	319	375	350	218	373	252	417	266	282

AGE INCIDENCE OF DEATHS.

Age Periods	1 year	1-2	2-5	5-15	15-25	25-45	45-65	65 upwards
Bronchitis	12	2	1	—	—	10	50	115
Pneumonia	48	20	19	11	8	31	75	70

Rheumatic Fever and Organic Heart Disease. Deaths, 895; Mortality rate per 1,000, 2·97.

The deaths from rheumatic fever numbered 27 and from organic heart disease 868.

The ages at death of the total number of fatal cases of rheumatic fever during the past ten years has been as follows:—

AGE INCIDENCE OF DEATHS FROM RHEUMATIC FEVER, 1922-1931.

	Under 5 years	5-15	15-25	25-45	45-65	Over 65 years
Deaths	5	31	30	33	31	28

Deaths from organic heart disease in 1931 occurred in 378 cases amongst males, and in 490 cases amongst females. This gives a death-rate of 2·74 per 1,000 amongst males, and 3·01 per 1,000 amongst females. From the table which follows it will be seen that the higher incidence of deaths amongst females occurs at later ages of life.

DEATHS FROM ORGANIC HEART DISEASE, 1931, ACCORDING TO SEX AND AGE.

Sex	Under 5 yrs.	5–15	15-25	25-45	45-65	Over 65 yrs.	Total
Males	—	—	5	19	145	209	378
Females	—	2	3	23	128	334	490
Total	—	2	8	42	273	543	868

Cerebro-Spinal Fever. There were 7 cases notified, with 3 deaths, in 1931, as against 13 cases, with 5 deaths, in the previous year.

Encephalitis Lethargica. The cases numbered 2 and the deaths 2, as against 7 and 3 respectively in 1930.

Acute Polioencephalitis. There were no cases notified during the year.

Deaths from Violence. Deaths, 179; Mortality rate per 1,000, 0·59.

RECORD OF PREVIOUS YEARS.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Deaths	157	152	145	162	164	171	195	167	188	179
Mortality rate per 1,000	0·54	0·52	0·49	0·56	0·57	0·58	0·68	0·58	0·63	0·59

V.—MATERNITY AND CHILD WELFARE.

(A) INFANT MORTALITY IN 1931.

The infantile mortality rate for the year was 71 per 1,000 births. This rate is 4 per 1,000 births less than the corrected rate for 1930.

CORRECTED INFANTILE MORTALITY RATES FROM 1922.

Year	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Bradford	85	78	91	94	91	91	70	79	75	71
England and Wales	75	68	74	75	70	69	66	74	60	66

Age Distribution of Infantile Mortality. The infantile mortality rate in the first four weeks of life may be taken as an indication of the operation of antenatal and neonatal causes in bringing about infant deaths. This rate from 1909 is seen in the following table :—

INFANTILE MORTALITY RATE PER 1,000 BIRTHS IN THE FIRST FOUR WEEKS OF LIFE, FROM 1909.

Year	Bradford					England and Wales
	Week				Total for four Weeks	Total for four Weeks
	1	2	3	4		
1909	34·3	4·7	5·2	5·2	49	41
1910	28·0	6·2	5·3	5·8	45	38
1911	33·7	7·3	5·6	4·7	51	40
1912	29·4	5·1	5·7	3·2	43	38
1913	32·1	6·5	6·2	3·1	48	39
1914	27·3	5·9	7·2	3·8	44	39
1915	28·2	6·5	5·3	3·9	44	38
1916	31·1	8·1	4·7	4·7	49	37
1917	31·2	7·4	2·6	3·0	44	37
1918	28·1	6·2	3·6	3·6	42	36
1919	34·0	5·9	4·2	2·7	47	40
1920	27·8	8·9	5·8	3·6	46	35
1921	29·9	6·8	4·9	2·8	45	35
1922	22·2	6·5	5·0	3·8	37	34
1923	22·9	5·3	4·0	4·2	36	32
1924	27·3	4·8	5·0	2·4	40	33
1925	23·8	4·1	4·8	3·1	36	32
1926	24·0	6·2	5·5	3·2	39	32
1927	25·0	5·8	3·0	2·5	36	32
1928	26·2	4·3	2·5	0·9	34	31
1929	24·4	3·7	3·9	3·2	35	33
1930	26·7	5·3	3·9	1·6	37	31
1931	26·5	5·6	2·9	2·2	37	—

This table shows that the death rate among young infants from prenatal and neonatal causes fell slightly last year.

For the remainder of the first year of life, the Infantile Mortality Rate per 1,000 births is given in the following table, which shows a comparatively low rate of infantile mortality after the first month. The table on page 86 shows the state of infantile mortality in Bradford each year from 1886, with the average infantile mortality rate for five yearly periods.

INFANTILE MORTALITY RATE PER 1,000 BIRTHS AFTER THE FIRST MONTH OF LIFE, FROM 1909.

Year	1 to 3 months		3 to 6 months		6 to 12 months	
	Bradford	England and Wales	Bradford	England and Wales	Bradford	England and Wales
1909	22	20	19	19	29	29
1910	22	20	21	19	34	28
1911	26	25	28	26	35	39
1912	19	18	14	15	22	24
1913	21	20	27	20	31	29
1914*	22	19	20	19	35	28
1915*	19	19	21	19	34	34
1916*	24	17	19	15	24	22
1917*	23	17	24	16	31	26
1918*	23	17	23	16	35	28
1919*	18	15	20	13	28	21
1920*	20	16	17	13	17	17
1921*	23	15	18	14	22	19
1922*	15	13	13	11	21	19
1923*	13	11	13	10	15	16
1924*	18	12	14	11	20	19
1925*	16	13	17	11	26	19
1926*	15	12	15	10	22	16
1927*	15	11	15	10	25	17
1928*	15	11	10	9	11	14
1929*	12	12	10	11	23	10
1930*	13	10	9	8	15	12
1931*	11	—	10	—	12	—

* The figures of infantile mortality for Bradford for these years are founded on numbers of births corrected in each year.

Illegitimacy and Infantile Mortality. Since 1922 the number and the percentage of illegitimate births are shown in the following table :—

ILLEGITIMACY IN BRADFORD FROM 1922.

Year	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Number	281	275	285	227	260	255	240	220	259	245
Percentage of total births	5·4	5·2	5·7	4·7	5·5	5·9	5·4	5·1	5·9	6·0

It will be appreciated that the apparent rise in the illegitimacy rate is due entirely to the fall in the number of legitimate births.

The infantile mortality rate is always very much higher among illegitimate than among legitimate infants. The following table shows the corrected Infantile Mortality Rates amongst these two classes of infants for the past ten years :—

CORRECTED INFANTILE MORTALITY RATES AMONG ILLEGITIMATE AND LEGITIMATE INFANTS.

Year	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Illegitimate ...	157	201	144	123	142	133	115	128	116	122
Legitimate ...	83	72	89	94	89	91	67	77	72	68

Place Distribution of Infantile Mortality. The Ward which showed the highest infantile mortality rate was West, where the rate was 125 per 1,000 births, while the South Ward also showed a rate above 100 per 1,000. The rate was lowest in the Thornton, Heaton, Bolton and Manningham Wards, in each of which it was below 50 per 1,000. The record of infantile mortality for the past 10 years in the different wards of the city is shown in the table on page 82.

Causes of Death in Infantile Mortality. The table on page 83 shows the deaths from stated causes under one year for the past ten years, and the following table shows the rate from certain of the most serious causes.

INFANTILE MORTALITY PER 1,000 BIRTHS FROM DEVELOPMENTAL AND WASTING DISEASES IN BRADFORD SINCE 1921.

Cause of Death	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Premature Birth...	19·3	20·0	22·2	18·0	22·3	22·0	24·0	18·2	20·0	19·8
Atrophy, Debility, and Marasmus ...	9·8	7·0	7·4	12·6	11·3	7·2	4·8	7·4	8·5	4·2
Congenital Malformations ...	7·3	7·2	8·0	7·2	7·6	5·1	5·4	5·5	5·5	5·9
Atelectasis ...	1·5	1·1	0·4	0·8	1·1	1·6	0·7	0·5	3·4	4·4

INFANT MORTALITY RATE PER 1,000 BIRTHS, IN WARDS, FOR THE YEARS 1922 TO 1931.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Allerton	55	76	26	60	44	63	62	53	73	68
Bolton	94	91	88	75	99	104	75	60	67	45
Bradford Moor	80	53	94	76	82	99	40	70	57	57
Clayton	59	90	53	53	97	34	28	39	81	62
East	100	63	76	83	86	94	60	126	70	64
East Bowling	70	76	107	111	164	113	74	98	77	99
Eccleshill	86	21	84	63	129	61	45	41	85	75
Exchange	47	77	141	102	169	185	140	182	68	86
Great Horton	65	69	64	77	57	61	52	62	34	59
Heaton	76	49	54	64	97	91	66	72	54	38
Idle	100	64	58	70	61	86	49	92	86	64
Listerhills	125	118	112	91	111	107	71	105	95	70
Little Horton	95	96	92	106	67	102	64	101	60	53
Manningham	96	68	99	78	65	75	43	39	73	48
North	78	87	143	161	133	120	87	106	96	86
North Bierley (East) ...	59	81	112	85	88	109	72	69	77	94
North Bierley (West) ...	52	81	73	100	73	75	87	62	71	88
South	108	144	125	116	130	117	101	108	108	118
Thornton	57	114	22	96	105	50	89	34	44	25
Tong	56	71	70	95	57	124	136	59	65	64
West	130	79	127	153	105	105	124	115	104	125
West Bowling	110	69	87	127	59	71	68	73	101	73
City	87	78	92	95	92	92	69	80	75	71

INFANT MORTALITY: NETT DEATHS FROM STATED CAUSES UNDER 1 YEAR OF AGE FROM 1922.

Causes of Death.	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Small-pox	—	—	—	—	—	—	—	—	—	—
Chicken-pox	—	—	—	—	—	—	—	1	—	—
Measles	4	15	1	15	3	21	2	8	2	2
Scarlet Fever	1	2	—	—	—	—	1	—	1	—
Whooping Cough	16	9	12	20	16	7	21	9	24	3
Diphtheria and Croup	1	1	1	2	3	4	1	3	2	1
Erysipelas	1	2	—	—	—	2	1	1	1	1
Tuberculous Meningitis	3	4	5	1	2	8	2	2	1	2
Abdominal Tuberculosis	1	1	3	2	1	—	1	1	—	—
Other Tuberculous Diseases ...	1	2	1	1	4	—	—	2	—	3
Meningitis (not tuberculous) ...	8	7	5	3	4	3	2	6	3	5
Convulsions	25	41	39	27	25	28	10	22	21	20
Laryngitis	4	1	—	—	—	2	—	2	—	—
Bronchitis	41	18	28	36	20	20	7	17	9	12
Pneumonia (all forms)	58	41	75	80	39	77	40	62	30	48
Diarrhœa and Enteritis	19	22	31	36	63	30	28	20	23	22
Gastritis	2	3	3	1	2	4	2	—	3	—
Syphilis	15	19	8	8	6	3	3	6	2	1
Rickets	5	2	3	—	1	1	—	1	—	1
Suffocation (overlying)	2	—	2	2	4	4	6	6	4	4
Injury at Birth	4	2	9	2	2	8	5	4	9	1
Atelectasis	8	6	2	4	5	7	3	2	15	18
Congenital Malformations	38	38	40	35	36	22	24	24	24	24
Premature Birth	101	106	111	87	105	91	106	79	87	81
Atrophy, Debility, and Marasmus	51	37	37	61	53	31	21	32	37	17
Other Causes	47	31	46	38	41	31	21	36	29	26
Total ...	456	412	462	461	435	404	307	346	327	292

INFANTILE MORTALITY IN CERTAIN GREAT TOWNS FROM 1922.

Deaths per 1,000 Births.

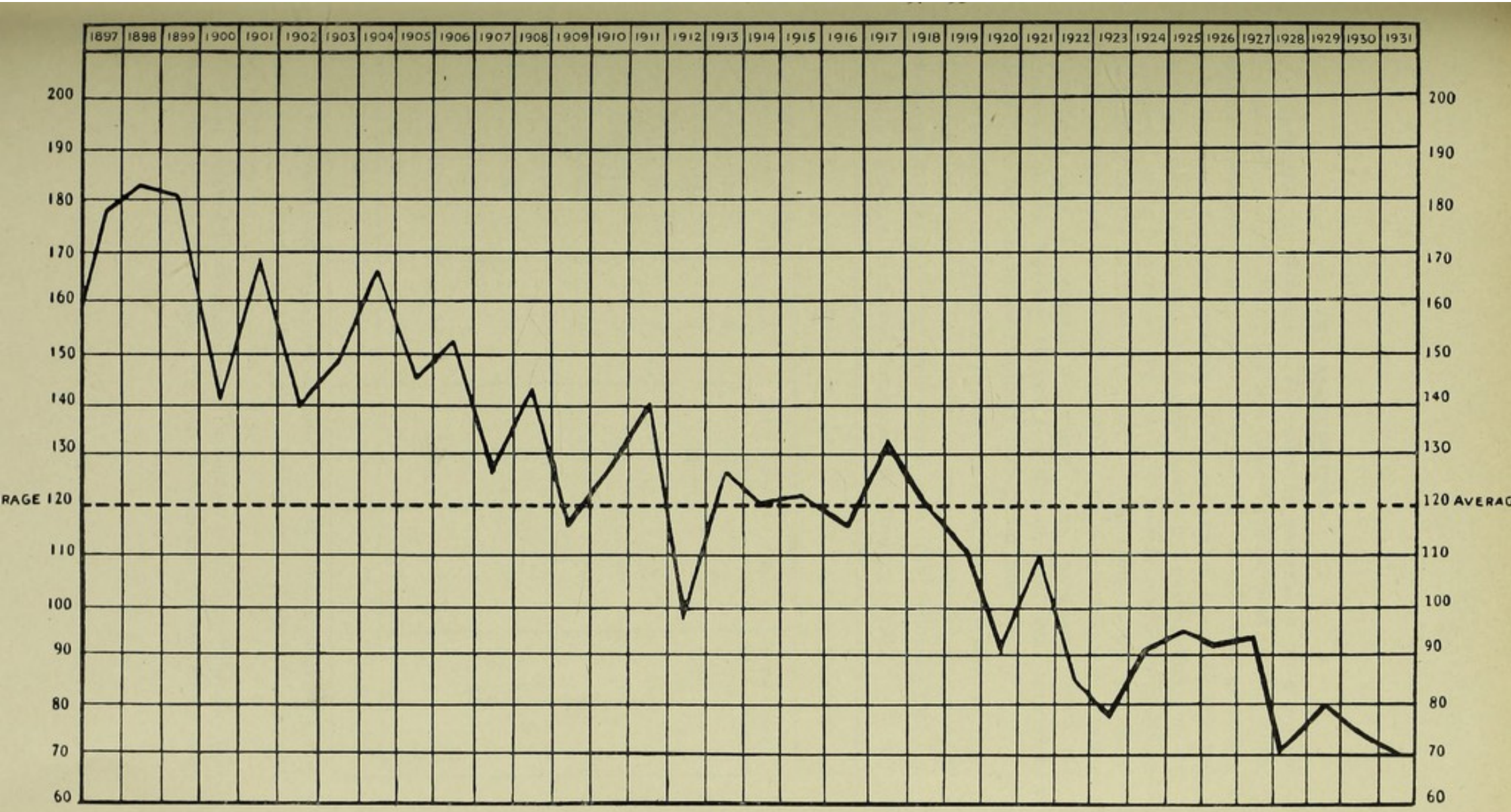
Town.	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Birmingham	85	71	80	75	70	72	65	79	62	70
Bradford	87	78	92	95	92	92	69	80	75	71
Bristol	71	61	69	76	68	56	61	61	59	53
Halifax	106	86	93	83	75	81	65	74	62	75
Huddersfield	74	72	95	68	55	71	65	78	56	59
Hull	106	83	90	100	91	91	80	107	71	83
Leeds	97	85	102	87	87	77	77	96	66	76
Leicester	85	81	76	86	74	76	70	81	55	64
Liverpool	94	98	102	98	103	91	92	95	81	93
London	74	60	69	67	64	59	67	70	59	64
Manchester	94	85	97	92	83	82	90	96	78	82
Newcastle	86	89	89	79	78	75	82	83	71	92
Nottingham	81	85	84	94	98	82	85	95	76	82
Portsmouth	63	52	66	61	53	54	54	67	57	55
Salford	103	95	119	103	98	75	96	114	75	88
Sheffield	81	89	88	83	78	89	73	87	66	69
Stoke-on-Trent	115	93	100	105	99	97	86	103	71	98
West Ham	77	58	69	58	56	60	64	77	65	67

Infant Mortality, 1905-1931.

YEAR	Deaths under One Year of Age per 1000 Births		
	Total	Diarrhœal Diseases	Total less Diarrhœal Diseases
1905	144	21	123
1906	152	34	118
1907	124	11	113
1908	143	30	113
1909	116	6	110
1910	127	20	107
1911	139	32	107
1912	99	4	95
1913	128	27	101
1914	122	15	107
1915	123	16	107
1916	119	11	108
1917	132	8	124
1918	125	9	116
1919	114	8	106
1920	93	6	87
1921	109	8	101
1922	87	4	83
1923	78	4	74
1924	92	6	86
1925	95	7	88
1926	92	13	79
1927	92	7	85
1928	69	6	63
1929	80	5	75
1930	75	5	70
1931	71	5	66

Infant Mortality in Bradford and England and Wales for each year, and in groups of five years since 1886.

Bradford.			England and Wales.			Bradford.			England and Wales.		
		Average			Average			Average			Average
1886	168		149			1911	139		130		
1887	179		145			1912	99		95		
1888	153	170	136	145		1913	128	122	109	110	
1889	181		144			1914	122		105		
1890	169		151			1915	123		110		
1891	181		149			1916	119		91		
1892	155		148			1917	132		97		
1893	198	176	159	151		1918	125	117	97	91	
1894	144		137			1919	114		89		
1895	203		161			1920	93		80		
1896	143		148			1921	109		83		
1897	179		156			1922	87		77		
1898	184	165	160	156		1923	78	92	69	76	
1899	181		163			1924	92		75		
1900	140		154			1925	95		75		
1901	168		151			1926	92		70		
1902	139		133			1927	92		69		
1903	148	153	132	138		1928	69	82	65	68	
1904	167		145			1929	80		74		
1905	144		128			1930	75		60		
1906	152		132			1931	71		66		
1907	124		118								
1908	143	132	120	117							
1909	116		109								
1910	127		106								



Average for 35 years.....120.

(B) MATERNITY.

Supervision of Midwives. The work is undertaken by a woman Medical Officer of the Maternity and Child Welfare Staff, with a nurse assistant inspector of midwives. The number of midwives practising in Bradford on the 31st December, 1931, was 68, of whom 65 held the Certificate of the Central Midwives Board by examination, or its equivalent, while 3 were on the roll as *bona-fide* practitioners before the passing of the Midwives Act, 1902. Inspection of the midwives' work was carried out on 360 occasions, of which 289 were routine inspections, and 71 special inspections. In accordance with the provisions of the Nursing Homes Registration Act, 1927, maternity homes have been inspected regularly throughout the year.

In Bradford the Midwives attended in 1931, 2,987, or 69·8 per cent. of the registered births. The number of cases attended by each midwife has varied from none to 174; their work is seen in the following table :—

NUMBER OF CASES ATTENDED BY MIDWIVES, 1931.

Number of Cases	Trained Midwives		Untrained Midwives	
	No.	Total Cases	No.	Total Cases
Over 150	2	337	—	—
130—150	4	551	—	—
110—130	2	240	—	—
90—110	5	501	—	—
70—90	5	407	—	—
50—70	7	410	—	—
30—50	8	270	—	—
10—30	8	183	2	36
Under 10	14	52	—	—
None	10	—	1	—
Total	65	2,951	3	36

The number of cases now attended by untrained midwives is very small indeed, amounting only to about 1·2 per cent. of the total attended by midwives.

The number of notifications of sending for medical help was 665, or 22 per cent. of their cases. In 548 cases medical aid was called in on

account of the mother, and in 117 cases on account of the child. The reasons given for medical aid in the case of the mother were as follows :—

Ruptured Perineum, 179; Uterine Inertia, 46; Malpresentation, 24; A.P. Hæmorrhage, 25; Pyrexia, 29; Adherent Placenta, 14; P.P. Hæmorrhage, 14; Contracted Pelvis, 30; Premature Birth, 22; Chest Trouble, 3; Debility, 11; Abortion, 18; Dead Fœtus, 4; Albuminuria, 18; Placenta Prævia, 2; Œdema, 2; Heart Trouble, 3; Abnormal Condition (not due to pregnancy), 2; Ante-Natal, 32; Prolonged Labour, 65; Mastitis, 1; Emergency, 4.

In the case of the child the reasons for sending for medical aid were as follows : Dangerous Feebleness (premature or otherwise), 30; Inflammation of Eyes, 43; Convulsions, 4; Malformations, 2; Cleft Palate, 2; Skin Eruption, 6; Jaundice, 2; Spina Bifida, 2; Asphyxia, 7; Abnormal Condition, 10; Tongue Tie, 3; Circumcision, 6.

Eight notices were sent to the Local Supervising Authority of the deaths of infants under the care of midwives before the arrival of a medical practitioner. The midwives reported 28 still births, or about 1·0 per cent. of their cases.

The number of cases attended by municipal midwives in the city was 614, or 21 per cent. of the total cases attended by midwives in the city. The average number of cases attended in 1931 by each municipal midwife was 88. The following statement shows the work done by municipal midwives in two years, 1930 and 1931, as compared with the total work by midwives in the city.

WORK OF MUNICIPAL MIDWIVES.

	1930		1931	
	All Midwives	Municipal Midwives	All Midwives	Municipal Midwives
Births Attended ...	3,179	640	2,987	614
Medical Aid Notices ...	667	173	665	150
Still Births	36	3	28	5
Death of Mother... ...	—	—	3	—
High Temperature ...	23	7	26	6
Total Visits to Patients...	42,948	9,721	35,573	10,113
Ante-Natal Visits ...	7,526	2,121	10,086	2,745

Under the Midwives Act, 1918, the total number of claims for midwifery fees sent in by medical practitioners during 1931 was 410. The Local Supervising Authority determined to recover in full 220 of these claims, and in part 71, leaving 119 paid in full by the Authority. The total cost to the Authority of these claims was £204 1s. 0d.

Ante-Natal Work. The Health Visitors carry out home supervision of cases not attending an ante-natal clinic or not under medical supervision, or not attended by a municipal midwife. During 1931 they had 332 expectant mothers under observation before the birth of the child, 971 expectant mothers being visited by either municipal midwives or health visitors in the year.

The total number of patients attending the various ante-natal clinics in 1931 was 1,902. The number continues to increase, but it is still too small, representing about 64 per cent. of the cases booking midwives. The total number of attendances amounted to 7,594.

Still Births. The number of still-births registered in 1931 was 201, or 5 per cent. of the live births registered. The number notified was, however, only 177, and for purposes of comparison the following table is given :—

STILL BIRTHS NOTIFIED IN PREVIOUS YEARS.

Year ...	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Number	216	223	221	198	186	203	195	200	183	195	177
Per cent.	3·8	4·3	4·2	4·0	3·8	4·2	4·5	4·7	4·2	4·3	4·3

Deaths of Women in Childbirth. In the tables at the end of the report 20 deaths occurring in the puerperal state in the city are shown.

These deaths are classified in the three following tables, according to the age periods of the mother, the duration of pregnancy, and the conditions from which the deaths arose. From these tables it will be noted that 4 of the 20 deaths occurred in pregnancies of less than six months' duration, while 2 of the deaths occurred in women over 40 years where the pregnancy had run full time.

Deaths in Child Birth.

(1) *Age Period and Classified Cause.*

Classified Cause	Age Period						
	20 years	25 years	30 years	35 years	40 years	45 years	Total
Toxaemias	—	1	2	—	—	—	3
Septic Conditions ...	2	1	6	—	—	—	9
Accidents of Pregnancy	—	—	—	1	—	—	1
Accidents of Parturition	—	—	1	1	1	—	3
Cæsarian Section ...	1	—	2	—	1	—	4
Totals...	3	2	11	2	2	—	20

(2) *Duration of Pregnancy and Classified Cause.*

Classified Cause	Duration of Pregnancy										
	1 mon.	2 mos.	3 mos.	4 mos.	5 mos.	6 mos.	7 mos.	8 mos.	9 mos.	un-known	Total
Toxaemias ...	—	—	—	—	1	1	1	—	—	—	3
Septic Conditions	—	—	—	1	—	—	—	2	6	—	9
Accidents of Pregnancy ...	—	—	—	1	—	—	—	—	—	—	1
Accidents of Parturition...	—	—	—	—	—	—	—	—	3	—	3
Cæsarian Section...	—	—	—	—				1	3	—	4
Totals ...	—	—	—	2	1	1	1	3	12	—	20

(3) *Age Period and Duration of Pregnancy.*

Duration of Pregnancy	Age Period						
	20 years	25 years	30 years	35 years	40 years	45 years	Total
1 month	—	—	—	—	—	—	—
2 months	—	—	—	—	—	—	—
3 months	—	—	—	—	—	—	—
4 months	—	—	1	1	—	—	2
5 months	—	—	1	—	—	—	1
6 months	—	—	1	—	—	—	1
7 months	—	1	—	—	—	—	1
8 months	1	1	1	—	—	—	3
9 months	2	—	7	1	2	—	12
Totals...	3	2	11	2	2	—	20

The accommodation for Maternity cases available in Bradford includes 10 beds in the Bradford Maternity Hospital, 60 beds at the Municipal General Hospital, and about 6 at St. Monica's Home.

The maternity cases at the Municipal General Hospital numbered 1,157, and are reported on page 116.

The number of maternity cases dealt with at the Bradford Maternity Hospital in 1931 was 174, the number of live children born was 159, including 9 premature births, 5 of whom died within 14 days, and the number of still births was 6.

The number of maternity cases dealt with at St. Monica's Home in 1931 was 38.

The number of Puerperal Fever cases notified in 1931 was 33, and of Puerperal Pyrexia 56, of which 60 were admitted to Hospital and 29 nursed at home. There were 9 deaths from Puerperal Fever.

The total number of cases of ophthalmia neonatorum notified was 23. Of these 18 made a complete recovery, 2 have opacities of both eyes, 1 had opacities in both eyes with nystagmus, 1 died and 1 removed out of Bradford. Three of these cases were admitted to St. Luke's Hospital with the mother.

(C) INFANCY.

During the year 1931 the number of births registered in Bradford was 4,368, while the number notified under the Notification of Births Act, 1907, was 4,277.

RECORD OF PREVIOUS YEARS.

	1925	1926	1927	1928	1929	1930	1931
Births registered	4,827	4,708	4,316	4,471	4,396	4,445	4,368
Births notified	4,849	4,702	4,368	4,443	4,406	4,506	4,277
Notifications to 100 registrations	100·5	99·9	101·2	99·4	100·2	101·4	97·8

Time of Receipt of Notification of Birth in 1931.

Persons notifying	Receipt of Notification							Total	Per cent received late
	Within 2 days	3-7 days	1-2 weeks	2-3 weeks	3-4 weeks	1-2 m'nths	2-3 m'nths		
Doctor ...	203	92	18	3	1	—	3	320	36·6
Midwife ...	2246	703	21	—	1	—	—	2971	24·4
Father ...	31	14	3	2	—	—	—	50	38·0
Doctor and Midwife ...	8	—	1	—	—	—	—	9	11·1
Father and Doctor ...	—	—	—	—	—	—	—	—	0·0
Institutions	785	141	1	—	—	—	—	927	15·3
Total ...	3273	950	44	5	2	—	3	4277	23·4

Following the receipt of the notification generally all cases notified by midwives are visited as soon as possible after the birth, and also those cases with doctors in attendance where the home circumstances seem to warrant it. The number of births notified in 1931 which were visited was 3,893, or 90 per cent. of all the births.

Births Visited in 1931.

Person in attendance	Times between Birth and Visit					Total
	1 week	2 weeks	3 weeks	4 weeks	Over 4 weeks	
Doctor	86	386	6	1	3	452
Midwife	2,203	349	—	—	—	2,552
Institution	—	777	103	7	2	889

Of the 3,893 births visited it was considered that 60 required visitation once only during the first year, while 3,833 were selected for more frequent revisitation during their first year of life. The total number of visits paid in 1931 to infants was 39,580.

FEEDING OF INFANTS UNDER VISITATION COMPLETING FIRST YEAR.

	Hand fed from birth	Mixed feeding from birth	Wholly breast fed				
			Under 1 month	Under 3 months	Under 6 months	Under 9 months	9 months and over
Infants ...	57	19	400	812	788	1,334	303
Percentage ...	1·5	0·5	10·8	21·9	21·2	35·9	8·2

As compared with previous years this table shows that in 1931 more infants were wholly breast fed for periods over 3 months than usual.

WORK OF MOTHERS IN 1931.

	Outside the home			Inside the Home
	Factories	Other Work	Total	
Within six months before birth ...	447	11	458	3,255
Within six months after birth ...	301	21	323	3,391

This table as compared with the previous year shows a larger number of mothers employed outside the home before birth and a less number of mothers employed outside the home after birth.

Of the 458 mothers working within six months before confinement 30 were employed within three months before birth, and of the 323 mothers working within six months after confinement 8 returned to work within three months after the birth.

Child Centres. The Local Authority conducts 13 Child Clinics in the city, at each of which a medical officer attends. The principal child clinic is situated in Morley Street, and it is open every week-day morning and afternoon except Thursdays and Saturdays, when it is open in the morning only. The following table shows the location of each clinic, the days on which it is in operation, and the total attendances last year.

Child Clinics in Bradford.

Clinic	Days of Attendance	Times of Attendance	Attendances during year
Central, Morley Street...	Daily	Morning and Afternoon	27,754
Mount Street	Tuesday	Morning and Afternoon	3,768
Green Lane	Monday and Thursday ...	Afternoon only	5,248
Sticker Lane	Friday	Afternoon only	2,371
Otley Road	Wednesday ...	Morning and Afternoon	5,725
Brownroyd	Thursday ...	Morning and Afternoon	5,227
Great Horton	Monday	Morning only	2,240
Wakefield Road ...	Wednesday ...	Afternoon only	2,508
Low Moor	Tuesday	Afternoon only	2,246
West Bowling	Monday	Afternoon only	1,843
Lapage Street	Thursday ...	Afternoon only	3,004
Idle	Friday	Afternoon only	2,396
Clayton	Alternate Wednesdays ...	Afternoon only	419

These Centres are all doing excellent work and are keenly appreciated by those who take advantage of their services. They are primarily special educational institutions for instruction to mothers on how to keep babies and young children healthy. Mothers seeking such knowledge are welcomed, especially if the baby is well; it is too late often to seek this information when the baby is ill. All mothers require this knowledge, and the work of the Centres is directed to benefiting the child through the mother, whose co-operation is most desired.

The number of attendances in 1931 at the Central Clinic was 27,754, and the number at the District Clinics 36,995, an average of 55 cases per session at the Central Clinics, and 47 cases per session at the District Clinics. There has been an increase of 4,614 attendances at child clinics during 1931, which is altogether satisfactory.

The number of children registered for the first time at the Child Clinics in 1931 was 2,782. The following table shows the growth of the work since its inception.

Child Clinics.

Year	New Cases	Total attendances	Average weekly attendances	Average daily attendances
1914	2,488	31,193	600	120
1915	1,987	28,192	540	108
1916	1,998	23,490	452	90
1917	1,721	19,194	369	74
1918	1,606	17,068	328	65
1919	1,810	19,495	375	75
1920	2,832	28,829	554	110
1921	2,872	35,784	688	137
1922	2,115	25,868	497	99
1923	1,926	24,320	468	93
1924	1,822	24,952	480	96
1925	3,102	35,937	680	136
1926	2,551	38,279	736	147
1927	2,341	41,337	795	159
1928	2,604	50,689	975	195
1929	2,804	55,030	1,101	220
1930	2,908	60,135	1,203	241
1931	2,782	64,749	1,295	259

The work at the Central Clinic is arranged into sessions for infants, sessions for children, and " family " sessions attended by mothers who have an infant and one or more children. At the Branch Clinics, which are attended for the most part by mothers with families—infants *and* young children are dealt with at each session.

Death-rate Among Young Children. The mortality rates among children from 1—2 years and 2—5 years are seen in the following tables. The number of cases of Measles coming under notice under 5 years of age was 3,875, of whom 68 were removed to municipal hospitals. The number of cases of Whooping Cough under 5 years was 767.

Mortality Rate between 1 and 2 Years per 1,000 Persons Living at these Ages.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
General Mortality Rate	19·8	28·7	25·8	30·1	18·6	26·3	14·7	28·8	16·9	15·4
Mortality Rate from specified Group Causes:—										
Common Infectious Diseases	2·53	7·70	4·26	13·31	3·45	7·81	3·49	8·40	6·30	3·79
Influenza ...	1·55	0·83	1·28	0·22	—	0·47	—	0·51	0·25	0·50
Tuberculosis ...	2·91	2·29	2·34	2·40	2·76	2·13	1·25	2·54	1·77	1·26
Bronchitis and Pneumonia ...	6·80	9·00	10·23	8·94	4·83	11·13	4·74	12·9	3·53	5·55
Diarrhœa and Enteritis ...	0·78	1·04	0·85	1·53	2·07	0·71	2·00	0·76	1·26	0·50
Estimated Population between 1 and 2 years on June 30th ...	5,148	4,801	4,692	4,584	4,347	4,223	4,008	3,928	3,968	3,961

Mortality Rate between 2 and 5 Years per 1,000 Persons Living at these Ages.

	1924	1925	1926	1927	1928	1929	1930	1931
General Mortality Rate	6·8	7·19	4·75	7·74	4·08	7·08	5·16	4·84
Mortality Rate from Specified Group Causes:—								
Common Infectious Diseases	0·91	2·76	1·29	2·63	0·85	2·01	2·00	1·19
Influenza	0·56	0·0	0·0	0·15	0·08	0·32	0·08	0·08
Tuberculosis ...	0·49	0·76	0·65	0·58	0·54	0·64	0·42	0·34
Bronchitis and Pneumonia	1·83	2·00	0·72	2·12	0·77	1·93	1·08	1·70
Estimated Population between 2 and 5 years on June 30th ...	14,208	14,474	13,907	13,703	12,999	12,422	12,022	11,780

(D) GENERAL.

The Health Visitors paid 81,784 visits to cases during the year. Of these, 332 were made to ante-natal cases, 39,580 to infants under one year, 3,893 being primary visits, 32,468 to children between 1 and 5 years of age, 4,473 to tuberculosis cases, 2 to cases of infective enteritis, 3,875 to cases of measles, 767 to cases of whooping cough, and 287 to nursing mothers and other cases.

The dental work in connection with maternity and child welfare is shown in the table on page 126, where it will be seen that 214 mothers and 477 young children were under treatment for dental conditions during 1931.

The main voluntary effort in connection with Maternity and Child Welfare in Bradford is undertaken by the Bradford Maternity Care Committee, which still continues its educational work among mothers attending various centres. Mothers are instructed in dressmaking, sewing, knitting, cookery and mothercraft by experienced teachers. There are five Centres, namely Wakefield Road, Otley Road, Lilycroft, Green Lane and Fairweather Green. The total number of mothers registered at the classes is 237, with an average weekly attendance of 18.

During the year, 1,240 new garments were made at the classes, and over 250 were re-made from old clothes brought by the mothers. There was also a good proportion of garments knitted by the mothers. A maternity box is available for the use of the poorer members at the time of their confinement.

The Holiday Home at Grassington continues to be very successful, 120 mothers and 202 children having visited the Home. Out of that number 28 paid for themselves, 14 were sent to the Home by the Health Committee, 69 by the Bradford Hospital and Convalescent Fund, 2 by the Guild of Help, and 7 by other organisations. One hundred and three children were sent by the Victoria Convalescent Fund.

Home Helps. During the year, home helps have attended 34 cases, covering 426 days. Of these, 13 received the service free, 16 paid part, and 5 paid full cost.

VI.—BACTERIOLOGICAL AND PATHOLOGICAL WORK.

The report of the City Pathologist, which follows, gives an account of this work which has much increased during the past seven years. The laboratories have proved of great value in the protection of the health of the public and in the diagnosis and treatment of disease, thereby increasing the efficiency of these efforts in the City.

In the report it will be seen that the standard of cleanliness of milk produced in the City is satisfactorily high, and the improvement in City milk has been much greater than that of milk sold in the City but produced outside. The figures with respect to Grade "A" milk indicate that the standards set up in the Milk (Special Designations) Order, 1923, could now be revised.

In view of the change now determined upon in the distribution of milk, by the closure of the Milk Depôt, it is of interest to compare the results got from the examination of Depôt milk with those of milk produced within the City. It will be seen that City produced milk has now passed the standard of cleanliness of the general milk supply from the Depôt, 76·5% of the City produced milk conforming with the standard of cleanliness of certified milk and 74·3% of the Depôt milk, apart from Grade A (Tuberculin Tested) Milk, conforming with this standard. The change involved whereby only Grade "A" City produced milks are used in the new system of distribution, will show a better comparison still.

A satisfactory improvement will be noted in the results of the examination of ice cream. The improvement noted last year in the results of water examination, is also continued.

Report by the City Pathologist,
M. A. C. Buckell, M.B., B.S. (London), D.P.H.

Twenty-five thousand, six hundred and twenty-seven specimens were examined during 1931, an increase of 1,755 over the previous year.

	No. of specimens examined.
1925	14,396
1926	15,675
1927	17,770
1928	19,944
1929	22,695
1930	23,872
1931	25,627

Of the 25,627 specimens examined, 6,728 were examined in the Laboratories at St. Luke's Hospital, mostly for that Institution.

The 25,627 specimens were distributed as follows :—

Anthrax	330
Infectious Diseases	16,306
Food, etc.	4,537
Miscellaneous Specimens	4,454
	25,627

ANTHRAX :

The work done in Anthrax during the past year has been relatively small. In the examination of wools, 255 samples of wool, hair, etc., were examined for the Home Office as a control on the work of the Wool Disinfecting Station at Liverpool. One hundred and forty-three of these were samples of raw material and 112 were disinfected material. In the raw material, 22 of the samples were found to contain bacillus anthracis as follows :—14 out of 57 samples of Karachi Goat Hair; 5 out of 6 samples of Grecian Goat Hair; 1 out of 2 samples of East Indian Goat Hair from the Persian Gulf, and 2 out of 10 samples of Egyptian Wool. Bacillus anthracis was isolated from none of the disinfected samples. From local sources, 40 samples of wool and dust, etc., were examined, and of these, one sample of dust from Turkey Mohair was found to contain bacillus anthracis. All the positive samples were confirmed by biological tests and altogether 34 such tests were made. Material from one suspected human case of Anthrax was examined and found to be negative.

INFECTIOUS DISEASES :

In Venereal Diseases, 6,235 examination were made. Of these, 4,042 were Wassermann Reactions for syphilis and the following table shows the number of such Wassermann Reactions done in the past three years :—

	Treatment Centre	Practi-tioners	Institu-tions	Total
1929	691	357	2,224	3,272
1930	939	416	2,509	3,864
1931	731	354	2,957	4,042

2,093 were smear examinations for Gonococci and the numbers of these examinations during the past three years are as follows :—

1929	2,181
1930	2,277
1931	2,093

in addition to these, 31 dark ground examinations and 69 Colloidal Gold Reactions were done. In other infectious diseases, 2 cases of infection by bacillus typhosus and one of paratyphosus B were confirmed by cultural methods, and 11 cases of infection by B. dysenteriæ flexner were established by culture.

Milk.

One thousand four hundred and seventeen samples of milk were examined by the methods laid down in the Ministry of Health's Memo. Foods/139. Altogether, 2,386 samples of milk were examined, from the following sources :—

Milk Depôt—A.T.T.	... ...	104
	Other sources	156
	Bottles as issued	68
St. Luke's Hospital	... ...	134
City Samples Within	... ...	316
	Without	363
	Certified	5
	Grade A.T.T.	4
	Grade " A "	33
	Heat Treated	31
	Sterilized	5
	Institutions, etc.	198
	Veterinary Milks for T.B.	258
	Biological Tests for T.B.	711
		2,386

(A) *The Municipal Milk Depôt.*

One hundred and four samples of Grade A.T.T. milk as received at the Depôt were examined. All save one passed the Ministry's standard. No B. coli were found in 0·1 c.c. in 97·125%, and the total number of organisms grown was less than 30,000 in 94·23%. Thus 94·23% of the samples passed " Certified " standard, the highest set by the Ministry.

One hundred and fifty-six samples of milk received by the Depôt from other sources were examined; the results are given in the following table. 74·36% pass " Certified " standard.

DEPOT MILKS, 1931.

No. of samples examined	B. coli absent from				No. of organisms per c.c.	
	1·0 c.c.	0·1 c.c.	0·01 c.c.	0·001 c.c.	Less than 30,000	More than 200,000
Other sources 156...	50%	74·36%	94·23%	99·36%	92·95%	1·93%
Grade A.T.T. 104...	74·04%	97·125%	100%		94·23%	0·96%

(B) *From the City's Inspectors.*

Seven hundred and fifty-seven samples were received from the City's Inspectors. Of these, 316 were samples of " street " raw milk from sources within the City, and 363 from sources outside the City.

The results from these are given in the following tables :—

CITY " STREET " SAMPLES OF RAW MILK 1931.

Source	No. of Samples Examined	B. Coli absent from			
		1·0 cc.	0·1 cc.	0·01 cc.	0·001 cc.
Within the City...	316	51·75%	76·54%	91·10%	95·87%
Outside the City	363	36·09%	59·23%	82·37%	92·01%

Source	No. of Samples Examined	Organisms per c.c.		
		Less than 10,000	Less than 30,000	More than 200,000
City within	316	66·03%	83·17%	2·85%
City outside	363	54·27%	76·03%	4·68%

From these figures it will be seen that the percentages of samples reaching certified standard (the highest set by the Ministry of Health, absence of B. coli in 0·1 c.c., and less than 30,000 organisms per c.c.) is :—

Within the City	76·54%
Outside the City	59·23%
All samples	67·16%

CITY RAW " STREET " MILKS.

Percentage of Samples Passing " Certified " Standard.

	1931		1930		1929		1928	
	No. of Samples	Certified Standard	No. of Samples	Certified Standard	No. of Samples	Certified Standard	No. of Samples	Certified Standard
Within the City ...	316	76·54%	262	66·03%	241	70·12%	290	66·56%
Outside the City ...	363	59·23%	312	52·57%	280	59·92%	299	54·52%
All Samples ...	679	67·16%	574	58·71%	521	64·30%	589	60·61%

Average of 4 years	No. examined.	Pass Certified Standard.
City samples in and out ...	2,363	62·86%

Five samples of Certified milk were received from the City's Inspectors; all of these passed the required standard.

Examination of thirty-three samples of Grade " A " Milk received from the Inspectors gave the following results :—

Examined.	Passed.	Failed.
33	28	5

As in past years the results from Street samples from sources within the City and outside show that there is an urgent need for revision of the Ministry's standards if the grading of milk is to regain its influence on the production of a clean milk supply.

Ice Cream.

Although the results from the examination of 129 samples of ice cream and its constituents show an improvement on those of former years, many instances of gross pollution still occur indicating the necessity for proper standards and means to enforce them.

Of the 129 samples examined during the year, 111 are of frozen ice cream; the results of these and the similar figures for the previous two years are given in the subjoined table.

Samples of Frozen Ice Cream.

		1931	1930	1929
B. coli absent from	1·0 c.c.	70·25%	36·93%	24·67%
	0·1 c.c.	84·69%	53·21%	51·92%
	0·01 c.c.	91·89%	64·0%	67·53%
	0·001 c.c. ...	95·49%	74·67%	79·22%
	0·0001 c.c. ...	97·30%	78·67%	88·31%
Total organisms less than ...	10,000 per c.c.	34·23%	25·33%	2·59%
	30,000 per c.c.	41·44%	34·67%	14·29%
	100,000 per c.c.	55·86%	42·97%	20·78%
	1,000,000 per c.c.	82·88%	76·00%	50·65%
over	1,000,000 per c.c.	17·12%	24·00%	49·35%
No. of samples		111	75	77

From the table it will be seen that there is a progressive improvement taking place. As compared with 1929 the 1931 figures are quite hopeful. 84·69% show no B. coli in 0·1 c.c., but turning to the total organisms only 43·73% show less than 100,000 c.c.

A reasonable Coli standard is more easily reached than a good count. Taking into consideration the facts that the mixture has been boiled, and that the ingredients subsequently added are controllable, the high counts met with, suggest lack of reasonable care.

WATER.

In addition to the routine control of the City's water supply, a survey of the Nidd Valley Catchment Areas was carried out during the year.

BRADFORD WATER—BARDEN MOOR.

Percentage of Samples showing the presence of excremental B. Coli.

	1926	1927	1928	1929	1930	1931
Absent from 100 cc. ...	—	2·0%	8·8%	62·85%	75·51%	46·59%
Present in 100 cc. ...	100·0%	98·0%	91·0%	37·14%	38·0%	53·41%
10 cc. ...	81·0%	75·6%	33·3%	1·43%	5·1%	7·38%
1 cc. ...	21·3%	10·3%	—	—	—	0·57%
0·1 cc. ...	—	—	—	—	—	—
0·01 cc....	—	—	—	—	—	—
No. of Samples ...	33	49	46	70	98	176

BRADFORD WATER—THORNTON MOOR.

Percentage of Samples showing the presence of excremental B. Coli.

	1926	1927	1928	1929	1930	1931
Absent from 100 cc. ...	9·1%	—	16%	70·38%	78·26%	*Too*
Present in 100 cc. ...	90·9%	100·0%	84%	25·92%	17·38%	*few*
10 cc. ...	50·0%	81·8%	20%	3·70%	4·35%	*samples*
1 cc. ...	13·6%	9·1%	—	—	—	*received*
0·1 cc ...	—	—	—	—	—	*for*
No. of Samples ...	22	22	25	27	23	*analysis* 11

BRADFORD WATER—NIDD VALLEY.

Percentage of Samples showing the presence of excremental B. Coli.

	1927	1928	1929	1930	1931
Absent from 100 cc.	—	—	47·82%	88%	90·91%
Present in 100 cc. ...	100·0%	100·0%	52·28%	12%	9·09%
10 cc. ...	100·0%	84·0%	4·36%	—	—
1 cc. ...	83·6%	15·6%	—	—	—
0·1 cc.	12·0%	—	—	—	—
No. of Samples ...	160	202	38	50	77

General Survey of Work Done.

Anthrax		Total
Liverpool Raw	... ...	143
Disinfected	... ...	112
Local	... ...	40
Human	... ...	1
Biological Tests	... ...	34
		330

Infectious Diseases:		
Bilharzia	... ...	1
Cerebrospinal Fever	... ...	31
Diphtheria	... ...	4,873
Dysentery	... ...	109
Enteric Fever	... ...	116
Food Poisoning	... ...	3
Malaria	... ...	2
Tuberculosis—Sputa	... ...	4,138
Cerebrospinal fluid	... ...	31
Pus	... ...	61
Urine	... ...	119
Fæces	... ...	3
Body fluids	... ...	52
Biological tests	... ...	20
Pneumonia, Typing for	... ...	5
Puerperal Fever	... ...	433
Undulant Fever	... ...	31
Venereal Diseases	... ...	6,235
Vincent's Angina	... ...	42
Weil's Disease	... ...	1
		16,306

Food and Water :		
Milk	... ...	2,386
Water	... ...	528
Watercress	... ...	30
Lettuce	... ...	44
Ice Cream	... ...	129
Shell Fish	... ...	1,420
		4,537

MISCELLANEOUS :

Cerebrospinal Fluids for Infective Meningitis ...	66
Body Fluids	89
Blood Chemical Analyses—	
Urea	616
Non-protein Nitrogen	76
Creatinin	21
Uric Acid	4
Sugar	77
Van den Bergh	43
Fouchet's Reaction	4
Indican	1
Cholesterol	14
Calcium	44
Glucose Tolerance Curve	40
Levulose Tolerance Curve	1
Carbon Monoxide	1
Inorganic Phosphate	4
Total Protein	1
Globulin	1
Albumen	1
Blood Cultures	58
Counts	384
Coagulation Time	3
Fragility Tests	2
Grouping	1
Fæces—Bacteriological Examinations	53
Chemical Analyses	187
Hair for Ringworm	22
Histological Sections	604
Post Mortems	140
Pus	296
Sputa	24
Test Meals	95
Urine	994
Urea Concentration Tests	134
Vaccines	98
Wool Sterility Tests	255
	4,454

Total, 25,627 examinations.

VII.—HOSPITAL ACCOMMODATION.

In the first portion of this report reference is made to the hospital accommodation of the City ; in this portion further details of the hospitals under the control of the Local Authority are given.

(A) MUNICIPAL GENERAL HOSPITAL.

REPORT BY HOLROYD SLATER, B.A., M.B., F.R.C.S., MEDICAL SUPERINTENDENT.

I have the honour to present the twelfth annual Report on the working of the Bradford Municipal General Hospital for the year ended December 31st, 1931.

General comparisons for the last ten years are shown in the following table :—

	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922
No. of Admissions	7078	6591	6915	7176	6707	6905	6565	6139	5608	5141
No. of Live Births	826	789	702	654	539	592	485	466	463	360
No. of Operations	2257	2117	2158	2219	1973	2249	2018	1824	1799	1419
Average time in Hospital (in days)	34·8	37·2	35·6	34·5	29·9	30·4	28·7	31·4	32·5	28·3

	Civic.	Public Assistance.	Pensioners.	Total.
No. of In-patients on Dec. 31st, 1930...	451	264	2	717
No. of Admissions during the year ...	5654	1419	5	7078
No. of live births during the year ...	811	15	—	826
				8621
No. of In-patients on Dec. 31st, 1931...	488	248	—	736
No. of Discharges and Deaths during the year	6428	1450	7	7885
				8621

The admissions from outside have been distributed through the Wards as follows :—

(The corresponding figures for 1930 are given in brackets.)

	Male.	Female.	Total.
Medical Wards	1291 (1293)	1144 (967)	2435 (2260)
Surgical Wards	1157 (1154)	1606 (1296)	2763 (2450)
Children's Wards ...	400 (360)	304 (382)	704 (742)
Maternity Wards		1176 (1139)	1176 (1139)
Live Births	418 (394)	408 (395)	826 (789)
	3266 (3201)	4638 (4179)	7904 (7380)

The admissions are shown in greater detail in the accompanying table.

TABLE SHOWING DISTRIBUTION OF ADMISSIONS THROUGH WARDS OF HOSPITAL AND MONTHS OF YEAR.

	Maternity Wards		Children's Wards		Medical Wards										Surgical Wards				Total admissions into Hospital Wards	Transfers from Ward to Ward	Total Admissions from outside
					Men				Women						Men		Women				
	Admissions	Live Births	K1 & K2	H1	A3	B	F1	F2	C3	D2	D3	E1	E2	E3	A1	A2	C1	C2			
1931																					
January ...	79	66	64	19	43	28	31	36	56	19	28	20	73	3	53	54	56	61	789	89	700
February ...	75	66	39	10	56	17	23	31	43	23	27	32	89	2	38	45	49	57	722	81	641
March	103	90	50	13	53	16	35	39	63	30	50	40	113	6	42	58	48	66	915	116	799
April	84	73	44	11	37	20	33	31	54	26	38	24	59	9	55	39	63	34	734	99	635
May	74	63	30	20	42	18	23	37	50	20	26	20	56	1	68	45	57	52	702	84	618
June	71	65	32	26	40	18	24	37	64	19	27	21	56	2	65	63	50	63	743	82	661
July	75	68	41	23	46	19	20	21	52	19	19	18	55	4	39	50	56	58	683	80	603
August	75	66	32	12	44	19	23	32	61	28	20	18	56	1	55	41	48	22	653	67	586
September ...	75	67	44	19	43	20	25	27	60	24	45	28	71	5	37	58	47	51	746	85	661
October ...	80	65	53	15	46	15	26	27	51	28	27	26	56	3	51	43	58	52	722	75	647
November ...	83	76	49	20	48	17	31	42	70	21	22	32	56	3	48	65	50	51	784	59	725
December ...	68	61	45	5	56	26	32	44	56	23	22	31	37	2	38	48	55	50	699	71	628
Total admissions into ward ...	942	826	523	193	554	233	326	404	680	280	351	310	777	41	589	609	637	617	8892	988	7904
Total Transfers, ward to ward..	312	—	12	—	54	42	10	13	78	26	28	25	103	35	40	62	70	78	988	Total Transfers	
Total admissions from outside...	630	826	511	193	500	191	316	391	602	254	323	285	674	6	549	547	567	539	7904	Total Admissions from outside.	

Table Showing Diseases from which Patients have Suffered.

Disease	Males		Females		T'tal
	under 16	over 16	under 16	over 16	
Acute Infectious Disease.					
Cerebro-Spinal Meningitis	—	4	—	1	2
Chicken Pox	4	—	5	—	9
Diphtheria	2	—	—	1	3
Dysentery	3	1	—	—	4
Encephalitis Lethargica, Acute (Chronic)	—	5	1	9	15
Enteric Fever	—	1	—	1	2
Erysipelas	—	11	—	8	19
Influenza	2	40	4	50	96
Malaria	—	1	—	—	1
Measles	4	—	2	—	6
Pemphigus	2	—	2	—	4
Ringworm	—	—	3	—	3
Scarlet Fever	—	—	—	1	1
Tetanus	—	1	—	—	1
Whooping Cough	1	—	—	—	1
	18	61	17	72	168
Tuberculosis.					
Pulmonary	—	97	—	53	150
Generalised	—	—	1	1	2
Bladder	—	—	1	—	1
Elbow	—	1	—	—	1
Hip	7	5	1	1	14
Kidney	—	1	1	1	3
Knee	2	3	—	—	5
Lymphatic Glands	5	1	2	6	14
Meninges	—	1	2	—	3
Peritoneum	2	6	3	3	14
Skin	—	—	1	—	1
Spine	5	11	3	1	20
Tongue	—	2	—	—	2
	21	128	15	66	230
Malignant Disease.					
Bladder	—	—	—	1	1
Breast	—	—	—	21	21
Colon	—	12	—	8	20
Fauces	—	2	—	—	2
Humerus	—	—	—	1	1
Ileum	—	—	—	1	1
Larynx	—	—	—	1	1
Lip	—	3	—	—	3
Liver	—	2	—	4	6
Lymphatic Glands	—	6	—	—	6
Lungs	—	3	—	1	4
Mandible	—	3	—	—	3
Maxilla	—	4	—	—	4
Mediastinum	—	1	—	2	3
Œsophagus	—	5	—	2	7
Ovary	—	—	—	6	6
Pelvic Bones	—	—	—	1	1
Penis	—	2	—	—	2
Pharynx	—	2	—	—	2
Rectum	—	20	—	9	29
Scrotum	—	2	—	—	2
Skin	—	7	—	5	12
Stomach	—	17	—	18	35
Testicle	—	1	—	—	1
Tongue	—	8	—	1	9
Uterus	—	—	—	96	96
Vulva	—	—	—	7	7
	—	100	—	185	285
Rheumatism.					
Articular, Acute	5	12	1	28	46
Articular, Subacute	1	12	1	18	32
Chorea	9	4	10	5	28
Erythema Nodosum	1	1	—	6	8

Disease	Males		Females		T'tal
	under 16	over 16	under 16	over 16	
Rheumatism—*continued.*					
Muscular	—	3	—	2	5
Lumbago	—	8	—	4	12
Myalgia	—	1	—	—	1
Sciatica	—	7	—	2	9
Chronic Arthritis	—	15	—	40	55
Venereal Disease.					
Gonorrhœa	—	9	—	4	13
Gonorrhœal Arthritis	—	1	—	2	3
Gonorrhœal Conjunctivitis	4	—	7	—	11
Soft Chancre	—	2	—	—	2
Syphilis—Acquired	—	8	—	14	22
Syphilis—Congenital	6	1	4	—	11
Mental Diseases.					
Delirium Tremens	—	1	—	—	1
Dementia	—	1	—	4	5
Mania	—	—	—	2	2
Melancholia	—	—	—	2	2
Senile Decay	—	28	—	52	80
Violence: Attempted Suicide by					
Ammonia	—	1	—	—	1
Carbolic Acid	—	—	—	1	1
Caustic Soda	—	1	—	—	1
Cut Throat	—	7	—	1	8
Gas	—	13	—	5	18
Iodine	—	—	—	1	1
Liniment	—	—	—	2	2
Luminol	—	—	—	1	1
Lysol	—	—	—	1	1
Wound of Wrist	—	—	—	1	1
	—	22	—	13	35
Nervous System and Sense Organs.					
Aphasia	—	1	—	3	4
Amblyopia	1	—	—	—	1
Amnesia	—	1	—	2	3
Astygmatism	1	—	—	—	1
Bell's Paralysis	—	—	—	2	2
Blepharitis	1	—	—	—	1
Bulbar Paralysis	—	—	—	1	1
Cataract	2	7	1	4	14
Cephalagia	—	1	—	—	1
Cerebral—					
Abscess	—	2	—	—	2
Concussion	2	6	—	1	9
Embolism	—	1	—	1	2
Hæmorrhage	—	45	—	35	80
Syphilis	—	1	—	—	1
Thrombosis	—	8	—	5	13
Tumour	—	2	—	1	3
Conjunctivitis	1	6	3	—	10
Convulsions	2	—	2	—	4
Dachryocystitis	1	—	—	1	2
Deflected Septum Nasi	—	4	—	3	7
Disseminated Sclerosis	—	4	—	5	9
Epilepsy	—	35	1	19	55
Epilepsy Jacksonian	—	2	—	1	3
Epiphora	—	—	1	—	1
Foreign Body in Nostril	—	—	—	1	1
G.P.I.	—	4	—	—	4
Hemiplegia	2	21	—	23	46
Herpes Zoster	—	1	—	1	2
Hypermetropia	—	1	—	—	1
Hysteria	—	1	—	6	7
Keratitis	—	—	3	—	3
Little's Disease	—	—	1	—	1
Locomotor Ataxy	—	16	1	4	21
Mastoiditis	6	3	6	9	24
Meibomian Cyst	—	—	1	—	1
Menieres Disease	—	2	—	—	2

TABLE SHOWING DISEASES FROM WHICH PATIENTS SUFFERED—*continued.*

DISEASE	Males		Females		T'tal
	under 16	over 16	under 16	over 16	
NERVOUS SYSTEM AND SENSE ORGANS–*cont.*					
Meningitis, acute ...	2	—	2	2	6
Meningitis, chronic ...	2	—	—	—	2
Meningitis, pneumococcal ...	—		1	—	2
Meningocele	1	—	1	1	3
Migraine	—	—	—	3	3
Myelitis	—	1	—	—	1
Nasal Polypi	—	—	1	—	1
Neuralgia	—	2	—	1	3
Neuralgia, Trigeminal	—	2	—	—	2
Neuralgia, coccygeal...	—	1	—	—	1
Neurasthenia	—	31	—	33	64
Neuritis-Peripheral ...	—	8	—	2	10
Otitis Media	—	2	1	—	3
Paraplegia	2	7	—	2	11
Paralysis Agitans ...	—	3	—	8	11
Paralysis of Palate ...	—	—	—	1	1
Paralysis, Infantile ...	4	—	1	—	5
Poliomyelitis	—	2	—	—	2
Progressive Muscular Atrophy	—	1	—	—	1
Rhinitis	—	—	—	1	1
Shrapnel in Brain ...	—	1	—	—	1
Sinusitis, Antral ...	—	—	1	—	1
Spina Bifida	—	—	1	—	1
Strabismus	20	1	15	1	37
Tic Trigeminal ...	—	1	—	—	1
Vertigo	—	3	—	1	4
	50	242	44	184	520
RESPIRATORY SYSTEM.					
Abscess of Lung ...	—	2	—	1	3
Bronchial Asthma ...	1	17	—	12	30
Bronchiectasis ...	—	2	—	1	3
Bronchitis, Acute ...	7	24	6	20	57
Bronchitis, Chronic ...	—	172	—	95	267
Broncho-pneumonia ...	44	15	35	8	102
Coryza...	—	2	—	10	12
Laryngitis	—	—	1	—	1
Empyema	3	15	4	1	23
Pleurisy, Plastic ...	1	17	—	20	38
Pleurisy with Effusion	—	9	1	5	15
Pneumonia, Lobar ...	9	99	8	47	163
Pneumonia Hypostatic	—	2	—	3	5
Hæmoptysis	—	7	—	2	9
Nasal Polypi	—	—	—	1	1
Silicosis	—	3	—	—	3
	65	386	55	226	732
CIRCULATORY SYSTEM.					
Anæmia, Simple ...	—	1	1	18	20
Anæmia, Splenic ...	—	—	—	2	2
Anæmia, Pernicious ...	—	8	—	5	13
Aneurysm—					
Aortic	—	1	—	1	2
Radial	—	—	—	1	1
Arteritis	—	1	—	—	1
Arterio-sclerosis ...	—	10	—	2	12
Banti's Disease ...	—	—	—	2	2
Gangrene, Senile ...	—	5	—	4	9
Gangrene, Diabetic ...	—	1	—	1	2
Hodgkin's Disease ...	—	2	—	—	2
Hyperpiesis	—	12	—	4	16
Leukæmia	—	1	—	—	1
Morbus Cordis ...	—	85	3	165	253
Phlebitis	—	2	—	4	6
Raynaud's Disease ...	—	1	—	—	1
Varicose Veins ...	—	13	—	17	30
	—	143	4	226	373

DISEASE	Males		Females		T'tal
	under 16	over 16	under 16	over 16	
DIGESTIVE SYSTEM.					
Achlorhydria	—	1	—	—	1
Alveolar Abscess ...	—	1	—	—	1
Appendicitis, Acute ...	9	33	1	41	84
Appendicitis, Chronic	17	125	9	169	320
Biliary Fistula	—	—	—	1	1
Cholecystitis	—	20	—	24	44
Cirrhosis, Liver ...	—	5	—	1	6
Colic, Intestinal ...	2	22	—	13	37
Colitis, Mucous ...	—	2	1	3	6
Colitis, Ulcerative ...	—	—	—	1	1
Colostomy	—	1	—	—	1
Constipation	1	10	—	20	31
Dental Caries ...	—	2	—	3	5
Diarrhoea	—	—	1	2	3
Diverticulitis	—	4	—	2	6
Duodenal Ulcer ...	—	59	—	5	64
Duodenal Ulcer, Perforated	—	25	—	—	25
Dyspepsia	—	6	—	7	13
Enteritis	6	6	8	2	22
Fissure, Anal	1	3	—	1	5
Fistula in Ano ...	—	4	—	5	9
Fistula, Biliary ...	—	—	—	1	1
Foreign Body in Stomach	—	1	1	—	2
Gall Stones	—	6	—	24	30
Gastric Ulcer	—	21	—	15	36
Gastric Ulcer, Perforated	—	3	—	—	3
Gastritis	—	31	—	25	56
Gastro-Enteritis ...	5	7	4	4	20
Gastroptosis	—	—	—	1	1
Glossitis	—	2	—	—	2
Hæmatemesis... ...	—	13	—	13	26
Hæmorrhoids ...	—	33	—	12	45
Hepatic Abscess ...	—	—	—	3	3
Hiccough	—	1	—	—	1
Hourglass Stomach ...	—	1	—	—	1
Hydatic Cyst of Liver	—	1	—	—	1
Hyperchlorhydria ...	—	1	—	—	1
Intestinal Obstruction, acute	—	3	—	5	8
Intestinal Obstruction, chronic	—	7	—	4	11
Intussusception ...	1	—	—	—	1
Ischio-Rectal Abscess	—	16	—	10	26
Jaundice, Catarrhal ...	—	1	1	7	9
Marasmus	12	—	2	—	14
Pancreatitis	—	1	—	2	3
Peritonitis, acute ...	1	1	—	1	3
Peritoneal Adhesions...	—	5	—	13	18
Proctitis	—	—	—	2	2
Prolapse of Rectum ...	—	1	—	1	2
Pyloric Stenosis ...	2	—	2	—	4
Pylorospasm	—	—	—	1	1
Pyorrhœa Alvedaris ...	—	—	—	1	1
Polypus-Rectum ...	—	—	—	1	1
Stomatitis	2	—	—	1	3
Stricture, Æsophagus	—	—	—	2	2
Stricture, Rectum ...	—	1	—	1	2
Tape Worm	—	—	1	—	1
Thread Worms ...	1	—	2	—	3
Visceroptosis	—	2	—	6	8
	60	488	33	456	1037
GENITO-URINARY SYSTEM.					
Amenorrhœa	—	—	—	3	3
Bacilluria	—	—	—	9	9
Bartholin's Cyst ...	—	—	—	15	15
Caruncle, Urethral ...	—	—	—	4	4
Cervical Erosion ...	—	—	—	10	10
Colic Renal	—	—	—	2	2

TABLE SHOWING DISEASES FROM WHICH PATIENTS SUFFERED—*continued.*

DISEASE	Males		Females		T'tal
	under 16	over 16	under 16	over 16	
GENITO-URINARY SYSTEM—*continued.*					
Cystitis	1	13	—	17	31
Cystocele	—	—	—	6	6
Dysmenorrhœa	—	—	—	19	19
Dysparcunia	—	—	—	2	2
Dysuria	—	3	—	3	6
Endometritis	—	—	—	22	22
Enuresis	2	—	—	1	3
Fibroids Uterus	—	—	—	30	30
Fistula, Recto-Vaginal	—	—	—	1	1
Fistula, Vesical	—	1	—	—	1
Fistula, Urethral	—	4	—	—	4
Hæmaturia	1	7	—	1	9
Hydrocele	2	13	—	—	15
Hypernephrosis	—	—	—	2	2
Leucorrhœa	—	—	—	9	9
Menopause	—	—	—	1	1
Menorrhagia	—	—	—	33	33
Metrorrhagia	—	—	—	27	27
Movable Kidney	—	—	—	4	4
Nephritis, Acute	1	4	2	2	9
Nephritis, Chronic	1	40	—	27	68
Orchitis	—	8	—	—	8
Oxaluria	—	—	—	4	4
Ovarian Cyst	—	—	—	21	21
Ovaritis	—	—	—	1	1
Parametritis	—	—	—	4	4
Paraphimosis	1	2	—	—	3
Pelvic Cellulitis	—	—	—	1	1
Perinephric Abscess	—	—	—	1	1
Periurethral Abscess	—	6	—	—	6
Phimosis	20	5	—	—	25
Prolapse of Uterus	—	—	—	49	49
Prolapse of Ovary	—	—	—	4	4
Prostatic Enlargement	—	50	—	—	50
Prostatitis, Acute	—	2	—	—	2
Pruritis, Vulvæ	—	—	—	2	2
Pyelitis	—	—	—	6	6
Pyonephrosis	—	—	—	2	2
Pyosalphinx	—	—	—	7	7
Renal Colic	—	8	1	3	12
Retroverted Uterus	—	—	—	42	42
Retroverted Uterus, Gravid	—	—	—	1	1
Ruptured Perineum	—	—	—	3	3
Ruptured Urethra	—	1	—	—	1
Salpingitis	—	—	—	32	32
Scrotal Abscess	—	2	—	—	2
Sloughing of Penis	—	1	—	—	1
Stenosis Vagina	—	—	—	1	1
Sterility	—	—	—	6	6
Stone in—					
Bladder	—	4	—	—	4
Kidney	—	8	—	4	12
Ureter	—	1	—	1	2
Urethra	—	1	—	—	1
Stricture of Urethra	—	12	—	—	12
Undescended Testicle	2	7	—	—	9
Vaginitis	—	—	—	2	2
Vaginismus	—	—	—	2	2
Varicocele	—	3	—	—	3
Vulvitis	—	—	—	3	3
	31	206	3	452	612
SKIN.					
Boils	—	20	—	6	26
Callositis	—	—	—	1	1
Carbuncle	—	12	—	2	14
Corn-Suppurating	—	—	—	1	1
Dermatitis, Acute	1	—	—	—	1
Dermatitis, Chronic	—	13	—	6	19
Dermoid Cyst	—	—	—	1	1
Eczema	2	18	1	6	27

DISEASE	Males		Females		T'tal
	under 16	over 16	under 16	over 16	
SKIN—*continued.*					
Herpes	—	—	—	1	1
Herpes Zoster	—	3	—	—	3
Impetigo	6	3	10	—	19
Keloid	1	—	—	—	1
Lichen Planus	—	1	—	—	1
Nævus	—	—	1	—	1
Onychia	1	1	—	5	7
Paget's Disease	—	1	—	1	2
Psoriasis	2	5	—	1	8
Pruritis Ani	—	1	—	2	3
Scabies	—	4	—	—	4
Sebaceous Cyst	—	5	—	—	5
Sebaceous Adenoma	—	—	1	—	1
Seborrhœa	—	—	—	1	1
Sycosis	—	4	—	—	4
Ulcer of Arm	—	1	—	—	1
Ulcers of Leg	—	28	—	16	44
Ulcers of Lip	—	1	—	—	1
Urticaria	—	3	—	—	3
Vaccination Rash	—	—	1	—	1
	13	124	14	50	201
OTHER DISEASES.					
Abscesses	8	18	3	14	43
Adenitis, Simple	14	8	7	6	35
Adenitis, Suppurating	8	2	10	4	24
Adenoids and Tonsils	37	2	27	10	76
Adenoma of Breast	—	—	—	10	10
Adenoma of Thyroid	—	1	—	—	1
Alcoholism	—	5	—	1	6
Arthritis, Acute	1	—	1	1	3
Baker's Cyst of Knee	—	1	—	—	1
Bruises, etc.	8	40	1	22	71
Burns and Scalds	7	5	2	10	24
Bursitis	—	2	—	1	3
Bursitis Suppurating	—	—	—	1	1
Cellulitis	6	48	1	22	77
Charcot's Joint	—	—	—	1	1
Chondroma	—	2	—	—	2
Contracted Finger	2	—	—	—	2
Debility	2	46	1	27	76
Deformed Ears	—	1	—	—	1
Dermoid Cyst	—	1	—	1	2
Diabetes Mellitus	—	23	—	26	49
Dislocation of—					
Humerus	—	3	1	1	5
Hip	1	1	—	—	2
Hip Congenital	2	—	1	1	4
Elbow	1	1	1	—	3
Semilunar Cartilage of Knee	—	4	—	2	6
Dupuytren's Contraction—					
Elephantiasis	—	—	1	1	2
Epistaxis	—	1	—	1	2
Epiphysitis	1	—	—	—	1
Exophthalmic Goitre	—	—	—	2	2
Exostosis	—	1	—	1	2
Foreign Bodies in—					
Leg	—	2	—	—	2
Nose	—	—	2	—	2
Fracture of—					
Clavicle	2	1	—	2	5
Coccyx	—	—	—	1	1
Femur	4	8	—	31	43
Fibula	—	1	—	—	1
Fibula and Tibia	—	9	—	13	22
Humerus	—	10	—	2	12
Ilium	—	2	—	—	2
Oscalus	—	1	—	1	2
Metatarsal	—	1	—	—	1
Patella	—	—	—	2	2
Radius and Ulna	1	2	—	8	11

Table Showing Diseases from which Patients Suffered—*continued.*

Disease	Males		Females		T'tal
	under 16	over 16	under 16	over 16	
Other Diseases—*cont.*					
Fracture of—cont.					
Ribs	—	9	—	5	14
Skull	1	—	—	3	4
Spine	—	2	—	—	2
Tibia	1	1	2	6	10
Ganglion	—	5	—	1	6
Genu Valgum	5	—	3	—	8
Genu Varum	8	—	4	—	12
Goitre	—	—	—	3	3
Gout	—	—	—	1	1
Hallux Valgus	—	—	—	4	4
Hammer Toe	—	5	—	2	7
Hare Lip	2	—	—	—	2
Hernia—					
Diaphragmatic	—	2	—	—	2
Femoral	—	2	—	3	5
Inguinal	12	64	1	10	87
Umbilical	2	1	3	4	10
Ventral	—	3	—	6	9
Hernia Strangulated—					
Femoral	—	2	—	3	5
Inguinal	1	5	—	—	6
Umbilical	—	1	—	2	3
Ventral	—	1	—	1	2
Kyphosis	—	1	1	—	2
Lipoma	—	2	—	4	6
Lymphangitis	—	1	—	—	1
Malingering	—	2	—	—	2
Mastitis	—	—	—	9	9
Mongolism	1	—	—	—	1
Muscular Strain	—	1	—	—	1
Myxoedema	—	—	—	2	2
Necrosis of Phalanx	—	—	—	1	1

Disease	Males		Females		T'tal
	under 16	over 16	under 16	over 16	
Other Diseases—*cont.*					
Obesity	—	1	—	—	1
Osteoma	1	—	—	—	1
Osteomyelitis, acute	1	—	2	—	3
Osteomyelitis, chronic	—	2	3	—	5
Painful Stump	1	—	—	—	1
Painful Scar	—	2	—	—	2
Periostitis	—	2	—	—	2
Pharyngitis	—	1	—	3	4
Perthe's Disease	1	—	—	—	1
Prematurity	2	—	1	—	3
Puerperium	—	—	—	22	22
Ranula	—	—	—	1	1
Rickets	2	—	7	—	9
Ruptured Quadriceps Extensor	—	1	—	—	1
Ruptured Rectus Muscle	—	1	—	—	1
Sacro-coccygeal Tumour	—	2	—	1	3
Sinus	2	2	—	2	6
Scoliosis	1	—	—	—	1
Septicæmia	—	1	—	—	1
Spondylitis Deformans	—	1	—	—	1
Sprains of Joints	4	11	1	5	21
Synovitis	2	2	—	1	5
Talipes Valgus	1	—	—	1	2
Talipes Varus	9	2	4	—	15
Tonsillitis	1	7	2	19	29
Torticollis	1	—	4	2	7
Vertigo	—	1	—	—	1
Wounds	4	4	2	9	19
	171	407	99	362	1039

Diseases and Accidents connected with Childbearing

Abortion	146	Neurasthenia	1
Albuminuria	33	Pneumonia, Lobar	1
Ante Partum Hæmorrhage	6	Puerperal Pyrexia	32
Appendicitis	2	Puerperal Fever	28
Bartholin Gland Abscess	1	Pulmonary Tuberculosis	3
Bronchitis, Acute	1	Pyelitis	3
Carneous Mole	1	Retained Placenta	1
Cholecystitis	1	Retroverted Gravid Uterus	7
Chorea	1	Ruptured Tubal Gestation	12
Contracted Pelvis	44	Ruptured Perineum	10
Epilepsy	1	Ruptured Uterus	1
Hyperemesis	24	Subinvolution	1
Leucorrhœa	1	Utero-Vesical Fistula	1
Mastitis, Acute	46	Ventral Hernia	2
Mania	2	Varicose Veins	4
Miscarriage	22		
Miscarriage, Threatened	20		467
Morbus Cordis	8		

SURGICAL DEPARTMENT.

The number of operations performed during 1931 was 2,295, as compared with 2,117 last year. The operation death rate was 3·4 per cent. as against 3·5 per cent. in 1930. The various forms of anæsthesia employed and the number of operations performed under each are shown in the following table:—

	Laparotomies	Other Operations	Total
Spinal—(Stovaine or Spinocaine)	331	206	537
Spinal—Avertin	21	5	26
Avertin—Open Ether	39	58	97
Avertin—Gas and Oxygen	106	34	140
Rectal Ether	—	6	6
Local Infiltration (Novocaine and Cocaine)...	7	127	134
General (Ether, Chloroform, Gas)	285	1,070	1,355
Totals	789	1,506	2,295

Nature of Operation	Recovered	Died
Laparotomies.		
Exploratory	16	3
For Subphenic Abscess	1	—
For Tuberculous Peritonitis	3	—
For General Peritonitis	—	1
For Intestinal Adhesions	2	—
For Acute Pancreatitis	—	1
Total ...	22	5
Hernia.		
Radical Cure—umbilical	11	—
Radical Cure—umbilical, strangulated	1	—
Radical Cure—ventral	5	—
Total ...	17	—
Stomach.		
Gastractomy, for Gastric Ulcer ...	7	1
Gastrojejunostomy Posterior for Duodenal Ulcer	30	1
Gastrojejunostomy Posterior for Gastric Ulcer	10	1
Gastrojejunostomy Anterior for Jejunal Ulcer	2	—
Gastrostomy	1	—
Rammsted's Operation	1	2
For Perforation of Duodenal Ulcer ...	17	6
For Perforation of Gastric Ulcer ...	1	2
Total ...	69	13
Large Intestine.		
Cæcostomy	6	5
Colostomy	7	3
Colo-colostomy (for Cancer)	1	1
Diverticulitis—drainage	—	1
Total ...	14	10
Appendix.		
Appendicectomy, acute...	138	8
Appendix Abscess—drained	1	—
Appendicectomy, chronic	266	4
Total ...	405	12

Nature of Operation	Recovered	Died
Small Intestine.		
For acute obstruction by adhesions or bands	1	—
For acute obstruction by intussception Resection	1	1
For acute obstruction by Enterœnterostomy	1	1
For Jejunal Ulcer	1	—
For Jejunal Fistula	1	—
Total ...	5	2
Liver.		
Cholecystectomy	33	6
Cholecystotomy	5	—
For Hepatic Abscess	3	—
Total ...	41	6
Uterus and Appendages.		
Cæsarian Section for Contracted Pelvis	39	2
Cæsarian Section for Fibroids	—	1
Cæsarian Section for Transverse Lie ...	—	1
Cæsarian Section for Placenta Prævia...	1	—
Hysterectomy—Total	15	—
Hysterectomy—Subtotal	14	1
Myomectomy	1	—
Oophorectomy and Salpingectomy ...	36	1
Ovariotomy	9	2
Pyosalpina, drained	1	—
Ruptured Ectopic Gestation	7	1
Ventrofixation of Uterus	39	—
Total ...	162	9
Total Laparotomies ...	735	57
Herniotomies.		
Radical Cure—Femoral Hernia ...	1	—
Radical Cure—Inguinal Hernia ...	83	1
For Strangulated Femoral Hernia ...	2	2
For Strangulated Inguinal Hernia ...	2	1
Total Herniotomies ...	88	3
Genito-Urinary.		
Amputation of Penis	1	—
Circumcission	35	—

SURGICAL DEPARTMENT—*continued.*

Nature of Operation	Recovered	Died
GENITO-URINARY—*continued.*		
Colporrhaphy	11	—
Craniotomy	3	1
Curettage	145	1
Cystoscopy—Ureteral Catheterisation	33	1
Cystotomy, Supra-pubic	16	2
Forceps Delivery	24	0
Induction of Premature Labour	6	—
Nephrectomy	2	1
Nephrolithotomy	3	—
Nephropexy	2	—
Nephrotomy	1	—
Orchidectomy	3	—
Pelvic Examination	20	—
Perineorrhaphy	47	1
Podalic Version	7	—
Prostatectomy, Supra-pubic	10	—
Radical Cure—Hydrocele	8	—
Radical Cure—Varicocele	2	—
Resection of Cervix Uteri	6	—
Resection Epitheolioma, Clitoris	1	—
Resection Epithelioma, Vulvæ	1	—
For Antepartum Hæmorrhage	5	—
For Bartholin Cyst	12	—
For Carcinoma of Cervix Uteri—Curetting	3	—
For Carcinoma of Cervix Uteri—Radon	7	—
For Epithelioma Valvæ—Radon	3	—
For Extravasation of Urine	—	1
For Epithelioma Vulvæ—Diatheray	1	—
For Paraphimosis	2	—
For Perinephric Abscess	1	—
For Perineal Abscess	3	—
For Polypus-cervex	3	—
For Retained Products of Conception	102	—
For Ruptured Urethra	1	—
For Stenosis, Vagina	1	—
For Ulcer, Vagina	1	—
For Undescended Testicle	5	—
For Ureteral Calculus	2	—
For Urethral Caruncle	4	—
For Urethral Stricture—Dilatation	16	1
For Urethral Stricture—Wheelhouse Operation	1	—
For Vesico-vaginal Fistula	1	—
Total	561	9
RECTUM.		
Sigmoidoscopy	3	—
For Carcinoma—Radon	3	—
For Fussure	7	—
For Fistula	14	—
For Ischio-rectal Abscess	8	—
For Polypus	1	—
For Piles	37	1
For Prolapse	5	—
For Stricture	2	—
Total	80	1
NOSE, THROAT, AND CHEST.		
Excision, Papilloma of Palate	1	—
Mastoidectomy, Radical	5	1
Mastoidectomy, Conservative	7	—
Œsophagoscopy	1	1
Resection—Septum Nasi	4	—
Resection (partial) Tongue	3	—
Turbinectomy	4	—
For Carcinoma of Tongue—Radon	1	—
For Carcinoma of Cheek—Diathermy	1	—
For Empyema—Chest—Drainage, etc.	23	2
For Foreign Body in Nostril	4	—
For Hare Lip	3	—
For Nasal Polypi	1	—
For Salivary Calculus	1	—

Nature of Operation	Recovered	Died
NOSE, THROAT AND CHEST—*continued.*		
For Stenosis, Lachrymal Ducts	4	—
For Tonsils and Adenoids	111	—
For Torticollis	6	—
Total	180	4
EYES.		
Iridectomy	1	—
For Cataract	13	—
For Epiphora	1	—
For Dystrichiasis	2	—
For Squint	42	—
Total	59	—
EXCISIONS.		
Adenoma, Breast	10	—
Adenoma, Thyroid	1	—
Aneurysm, Radical Artery	1	—
Callosity, Sole	1	—
Carcinoma of Breast	5	—
Chronic Ulcer, Thumb	2	—
Cyst of Neck	2	—
Dermoid of Skin	3	—
Epithelioma of Lip	1	—
Foreign Bodies	1	—
Ganglion	6	—
Glands, Lymphatic, Malignant	1	—
Glands, Lymphatic, Tuberculous	17	—
Lipoma	5	—
Meningocele	2	—
Nævus	4	—
Nipple (Paget's Disease of)	1	—
Parotid Tumour	2	—
Prepatellar Bursa	1	—
Ranula	2	—
Sacrococcygeal Cyst	1	—
Scar	9	—
Sebaceous Cyst	4	—
Varicose Veins	82	—
Total		
AMPUTATIONS.		
Breast, Cancer	7	—
Finger	4	—
Leg	2	—
Thigh	1	2
Toe	6	—
Total	20	2
BONES AND JOINTS.		
Arthrodesis, Ankle	1	—
Autogenous Bone Graft	1	—
Coccygectomy	1	—
Excision, Baker's Cyst	1	—
Fairbank's Operation	1	—
Forcible Movements of Joints	2	—
Osteoclasty	15	—
Osteotomy	12	—
Pegging, Plating, and Wiring Fractures	4	—
Reduction of Fractures	15	—
Reduction of Dislocation of Hip	1	—
Reduction of Dislocation of Hip (congenital)	8	—
Reduction of Dislocation of Shoulder	2	—
Resection of Exostosis	4	—
Resection of Semilunar Cartilage of Knee	8	—
Sequestrotomy	5	—
Tarsectomy	3	—
Trephining Cerebral Tumour	1	—
Trephining Cerebellar Tumour	1	—
For Arthritis, Septic	3	—

SURGICAL DEPARTMENT—*continued.*

Nature of Operation.	Recovered	Died
BONES AND JOINTS—*continued.*		
For Charcot's Joint	1	—
For Flat Foot	2	—
For Hammer Toe	3	—
For Hallux Valgus	3	—
For Hallux Rigidus	1	—
For Necrosis (Femur)	2	—
(Illium)	1	—
(Tibia)	2	—
For Hip, Tuberculous	5	—
For Ilium, Tuberculous	1	—
For Knee, Tuberculous	1	—
For Metatarsal, Tuberculous	2	—
For Spine—Tuberculous	4	—
For Ankle—Tuberculous	1	—
For Femur—Tuberculous	1	—
For Osteomyelitis, acute	1	—
For Pes Cavus	4	—
For Psoas Abscess	1	—
For Talipes Equinus	10	—
Total	135	—
MISCELLANEOUS.		
Abscesses	44	1
Avulsion of Nail	11	—
MISCELLANEOUS—*continued.*		
Carbuncle	7	—
Carcinoma of Breast—Diathermy	2	—
Cellulitis	16	—
Cut Throat	1	—
Dental Extractions	106	—
Dupuytren's Contraction	1	—
Epithelioma of Scalp—Radon	1	—
Foreign Bodies in Tissues	4	—
Lupus—Diathermy	2	—
Mammary Abscess	57	1
Neurotomy (Fifth Nerve)	1	—
Plastic Operation on Ears	1	—
Primary Suture of Wounds	3	—
Ruptured Quadriceps	1	—
Sebaceous Adenoma—Diathermy	1	—
Tendon Lengthening	1	—
Tenotomy	10	—
Varicose Veins—Injection	6	—
Venesection	1	—
Total Miscellaneous	277	2
Total Operations	2217	78

MATERNITY DEPARTMENT.

The attendances at the Hospital Ante-Natal Clinic numbered :—

New Patients	919
Others	4192
Total ...	5111

In the Maternity Wards there were 826 live births and 67 stillbirths. The proportion of stillbirths was 8·1% as compared with 8·7% last year and 9·9% in 1929.

There were 12 Maternal Deaths.

Cæsarian section was performed on 43 occasions, 38 for contracted pelvis, and 1 for Placenta Prævia, 1 for Concealed Accidental Antepartum Hæmorrhage, Uterine growths 2, and Hydrocephalus 1.

ABNORMALITIES IN LABOUR.

Cause.	Number.
Perineal Lacerations—	
Episiotomy	12
Forceps	25
Spontaneous	86
Contracted Pelvis—	
Cæsarian Section	43
Craniotomy...	3
Forceps Cases—	
After coming head...	1
Eclampsia	3
Face presentation	1
Fœtal distress	6
Prolapse of Cord and Lateral Placenta Prævia	1
Prolonged second stage	17
Unreduced Occipito Posterior	2
Uterine Inertia	7
Abnormal Presentations—	
Breech	14
Face	5
Prolapsed Cord	6
Prolapsed Hand	1
Transverse	4
Unreduced Occipito Posterior position ...	19
Abnormalities of Mother—	
Hydramnios	6
Retained Chorion	12
Retained Placenta	8
Rigidity of Cervix	4
Uterine Fibroids	2
Diseases of Mother—	
Arthritis	1
Bronchial Asthma	1
Bronchitis	3
Chorea	0
Cystitis	6
Heart Disease	5
Influenza	6
Mania	1
Old Hemiplegia	2
Pemphigus	1
Phlebitis	2
Phthisis	5
Pleurisy	1
Pneumonia	2

Diseases of Mother—continued.

Cause.	Number.
Pyelitis	2
Scarlet Fever	1
Tonsillitis	1
Venereal Disease—	
Gonorrhœa	1
Syphilis (W.R. XX4, W.R. X3, W.R. X 10)	17
Toxæmias—	
Albuminuria	36
Eclampsia	8
Hyperemesis	1
Hæmorrhage—Ante-partum—	
Accidental	16
Erosion of Cervix	1
Placenta Prævia	16
Induction of Labour—	
Albuminuria	7
Breech Presentation	1
Eclampsia	1
Heart Disease	1
Hyperemesis	1
Post Maturity	3
Previous Difficult Labour	4
Small Pelvis	21
Small Pelvis and Heart Disease	1
Cases of Puerperal Sepsis—	
Abscess of Buttock	1
Influenza	1
Mastitis	8
Salpingitis	1
Salpingitis and Mastitis	1
Septicæmia or Sapræmia Transferred ...	16
Thrombosis of Leg	1
Cases of Opthalmia Neonatorum—	
Cured (Mild Cases)	11
Transferred to C.3 (Positive G.C.) ...	2
Went home against advice	1
Infants not entirely Breast Fed—	
Debility—partly breast fed	3
Feeble premature baby could not be discharged—Mother unable to stay in Hospital	1
Mastitis	1
Mother Dead	2

Infants not entirely Breast Fed—continued.

Cause.	Number.
Part breast fed baby—Delay in establishment of lactation—Mothers unwilling	2
Pulmonary T.B.	3
Refusal of mother to feed	1
Retracted nipples—partly breast fed ...	1
Sepsis	3

Maternal Deaths (Causes)—

Acute Dilatation of Heart	1
Acute Dilatation of Stomach	1
Ante-partum Hæmorrhage—Shock ...	1
Broncho-Pneumonia	2
Concealed Accidental Hæmorrhage, Cæsarian Section—Shock	1
Craniotomy, Fatty Heart, Myocarditis ...	1
Obstructed Labour—Cæsarian Section, Pneumonia—Paralytic Iliens	1
Peritonitis	1
Pulmonary Embolus	1
Severe Nephritic Toxæmia—B.P.270, Heart Failure	1
Tetany	1

Stillbirths (Causes)—

Abnormal Breech Delivery	5
Anencephalus	3
Ante-partum Hæmorrhage	18
Cause Unknown	8
Cord three times round neck	1
Craniotomy...	3
Forceps	7
Forceps—Post Maturity	2
Hydrocephalus	4
Hydrocephalus and Spina Bifida ...	1
Malposition of Head	1
One of Twins	1
Prematurity Early Rupture of Membranes	1

Stillbirths (Causes)—continued

Cause.	Number.
Post Maturity	2
Prolapsed Cord	7
Toxæmia of Mother	3
Total	67

DEATHS OF INFANTS WITHIN 10 DAYS OF BIRTH

Anæmia result of Maternal A.P.H.... ...	1
Anencephalus	1
Atelectasis	3
Congenital Atelectasis-Pneumonia	2
Congenital Heart Disease	1
Convulsions due to Abnormality of Cranium	1
Hepatitis and General Septicæmia ...	1
Icturus Neonatorum	1
Cellulitis of Neck—Ædema of Glottis, Asphyxia	1
Malæna Neonatorum...	2
Prematurity not Viable	2
Prematurity—Inanition	17
Pyonephritis—Bronch-pneumonia—Septicæmia	1
Spina Bifida—Hydrocephalus	1

CASES OF CONGENITAL DEFORMITY.

Hydrocephalus and Club Foot	1
Hydrocephalus and Spina Bifida	1
Hypospadias	1
Nævus on Occiput	1
Spina Bifida	2
Talipes...	1

CASES OF BIRTH INJURY.

Cephalhæmatoma	4
Facial Paralysis	8
Fracture of Humerus	2

RADIOLOGICAL DEPARTMENT.

During 1931 the following examinations and treatment were effected :— (Last year's figures are given in brackets.)

Radiological Examinations	2455	(2174)
Treatments by :—		
Deep X-Rays	239	(152)
Superficial X-Rays	87	(155)
Diathermy	14	(26)
Ultra-Violet Rays	9735	(6874)
Clinical Attendances	1340	(1312)
Operations under General Anæsthesia	13	(11)
Operations under Local Anæthesia	31	(25)
Dressings for Out-patients	1736	(1604)
Films used	6528	(5859)

DEATHS.

There have been 962 deaths in hospital during the year, as compared with 928 in 1930. The relation between the ages of patients and the number of deaths is shown in the subjoined table :—

Years of age	-1	1-2	2-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Number of Deaths ...	79	9	15	16	49	60	110	149	202	197	70	6

The Causes of Death at all Ages have been :—

	Under 16 years	Over 16 years
Anencephaly	1	—
Aneurysm, Aorta	—	1
Appendicitis, acute	—	9
Appendicitis, chronic	—	1
Arterio-sclerosis	—	14
Atelectasis	10	—
Banti's Disease	—	1
Bronchiectasis	—	5
Bronchitis, acute	—	6
Bronchitis, chronic	—	45
Bronchial Asthma	—	2
Broncho-Pneumonia	24	32
Bruises Multiple	—	5
Scalds	—	1
Cellulitis	—	7
Cæsarian Section	—	4
Cerebral Abscess	—	3
Cerebral Hæmorrhage	—	56
Cerebral Thrombosis	—	8
Cerebral Tumour	—	3
Cholecystitis	—	3
Cirrhosis of Liver	—	6
Colitis, Ulcerative	—	2
Convulsions	1	—
Cut Throat, Suicidal	—	2
Cystitis	—	2
Diabetes Mellitus	—	12
Dilatation, Acute of Stomach	—	1
Disseminated Sclerosis	—	4
Diverticulitis, acute	—	1
Duodenal Ulcer	—	1
Duodenal Ulcer, Perforated	—	8
Dysentery	2	—
Empyema	—	4
Encephalitis Lethargica	—	1
Enteritis, acute	1	1
Epilepsy	—	1
Extravasation of Urine	—	1
Fibroids Uterine	—	2
Fracture of Clavicle	—	1
Fracture of Femur	—	16
Fracture of Humerus	—	1
Fracture of Ilium	—	1
Fracture of Ribs	—	1
Fracture of Skull	—	1
Fracture of Spine	—	2
Fracture of Tibia and Fibula	—	1
Gall Stones	—	3
Gangrene, Senile	—	8
Gangrene, Diabetic	—	6
Gastric Ulcer	—	3
Gastric Ulcer, Perforated	—	2
Gastro-Enteritis	6	2
Hemiplegia	—	9
Hydatid Cyst of Bladder	—	1
Hydrocephalus	1	—
Icturus Neonatorum	2	—
Influenzal Pneumonia	—	1
Intestinal Obstruction	—	2
Intestinal Obstruction, Impacted Gall Stone	—	1
Locomotor Ataxy	—	1
Lymphadenoma	—	1
Lymphatic Leukæmia, acute	1	—
Malignant Disease of—		
Bladder	—	1
Breast	—	7
Colon	—	14
Lip	—	1
Liver	—	2
Lungs	—	1
Lymphatic Glands	—	2
Mandible	—	3
Maxilla	—	2
Œsophagus	—	3
Ovary	—	3
Palate	—	1
Pancreas	—	3
Parotid	—	1
Pelvic Bones	—	1
Penis	—	3
Peritoneum	—	1
Retro-peritoneum	—	3
Rectum	—	11
Skin	—	3
Stomach	—	15
Suprarenal	—	1
Tongue	—	4
Uterus	—	10
Vulvæ	—	1
Marasmus	4	—
Melæna Neonatorum	2	—
Meningitis	1	2
Mastoiditis, acute	—	1
Morbus Cordis	1	98
Myxœdema	—	3
Nephritis, acute	—	3
Nephritis, chronic	—	44
Obstructed Labour—Craniotomy	—	1
Osteomyelitis, acute	1	1
Ovarian Cyst	—	1
Pancreatitis, acute	—	3
Paralysis Agitans	—	2
Pernicious Anæmia	—	1
Peritonitis, General	1	3
Placenta Prævia	—	1
Pneumonia Hypostatic	—	8
Pneumonia, Lobar	5	47
Pneumonia, Influenzal	—	1
Poisoning, Suicidal, Coal Gas	—	1

CAUSES OF DEATH AT ALL AGES—*continued.*

	Under 16 years	Over 16 years		Under 16 years	Over 16 years
Poisoning, Suicidal, Ammonia	—	1	Splenic Anæmia	—	1
Post Encephalitis	—	1	Stone in Bladder	—	1
Prematurity	40	—	Stone in Kidney	—	1
Prostatic Hypertrophy	—	15	Strangulated Hernia—		
Prostatic Abscess	—	1	Femoral	—	2
Pulmonary Embolus	—	3	Inguinal	—	3
Pyonephrosis	—	4	Ventral	—	1
Rheumatic Fever	—	4	Stricture of Urethra	—	1
Rheumatoid Arthritis	—	3	Syphilis, Congenital	1	—
Ruptured Ectopic Gestation	—	1	Tetany	—	1
Senile Decay	—	75	Tuberculosis of—		
Septicæmia—			Hip	—	1
Acute Arthritis	—	1	Intestine	—	3
Abortion	—	1	Lungs	—	73
Cryptogenic	—	1	Meninges	3	1
Infected Wound	—	2	Peritoneum	1	3
Puerperal	—	4	Spine	—	2
Spina Bifida	2	—	Tuberculosis, General	—	3

The dental work done is shown in the following table.

DENTAL DEPARTMENT.

Number of Patients	Extractions		Fillings in Perm. Teeth	Scalings	Dentures etc.	Anaesthetics	Other Operations
	Temporary	Permanent					
357	37	1371	87	43	76	106	17

(B) INFECTIOUS DISEASES HOSPITALS.

The following table gives a summary of the cases admitted to the infectious diseases hospitals :—

	Leeds Road	North Bierley	Calverley	Thornton	Total
Smallpox	—	—	—	26	26
Scarlet Fever	590	76	60	—	726
Diphtheria	183	13	11	—	207
Enteric Fever	4	—	—	—	4
Cerebro Spinal Fever	6	—	—	—	6
Encephalitis Lethargica	—	—	—	—	—
Erysipelas	41	—	—	—	41
Chicken Pox	21	—	—	—	21
Measles	85	—	—	—	85
Whooping Cough	2	—	—	—	2
Pneumonia	8	—	—	—	8
Other Diseases	163	—	—	—	163
Totals	1,103	89	71	26	1,289

CITY HOSPITAL, LEEDS ROAD.

REPORT OF THE MEDICAL SUPERINTENDENT, JOHN DOUGLAS, M.B., CH.B., D.P.H.

I have the honour to present the Annual Report for the year ended 31st December, 1931. I took up my duties on the 1st July, 1931, succeeding Dr. J. T. Kitchin, who retired after thirty-two years' service as Medical Superintendent.

ADMISSIONS.

One thousand one hundred and three patients were admitted during the year. This number includes 30 patients admitted to Thornton Hospital. The number of admissions was about the average for the hospital, though it shows a decrease of 261 on the previous year, due to a decline in the incidence of Scarlet Fever.

The average length of stay of patients whose treatment was completed was 32·7 days, as compared with 29·3 days in 1930. This increase was due in part to the accommodation for six months of 26 chronic medical cases from St. Luke's Municipal Hospital. If these patients be excluded, the average length of stay was 30·39 days.

HOSPITAL DEATH RATE.

The death rate in respect of all admissions was 4·17 per cent.

SCARLET FEVER.

Of 615 patients admitted as cases of Scarlet Fever the diagnosis was confirmed in 590.

The average length of stay of patients whose treatment was completed was 35·69 days.

The policy of discharging Scarlet Fever patients early in the fifth week of the disease if free from obvious signs of infection, has been continued, and has been justified by the low incidence of return cases.

Return Cases.

These numbered five or 0·85 per cent. of patients discharged.

Type of the Disease.

The disease was of a mild type; there were no toxic cases and only 10 septic cases with one death.

The case mortality rate was 0·17 per cent.

Complications.

The percentage incidence of the principal complications is given in the following table :—

Complications.	No. of Cases.	Percentage Incidence.
Late Adenitis (suppurative in 12 cases)	51	8·64
Late Rhinitis	31	5·25
Otorrhea	37	6·27
Arthritis and Myositis	20	3·56
Nephritis and late Albuminuria... ...	7	1·19
Endocarditis	3	0·51
Jaundice	2	0·34

Less common complications were two cases of retropharyngeal abscess and one case of right femoral thrombosis.

Ear, Nose and Throat Complications.

The services of Mr. W. Appleyard, F.R.C.S., were available for the operative treatment of these complications.

Schwartz' operation was performed in five cases of acute mastoiditis, and tonsillectomy with adenoid curettage in 22 cases of diseased tonsils and adenoids.

Relapses.

A recurrence during convalescence of the signs and symptoms of Scarlet Fever occurred in seven cases, giving a percentage Relapse Rate of 1·19.

Cross Infection.

There were 12 cases of secondary infection in the Scarlet Fever Wards, including four cases in whom the secondary disease was in the process of incubation on admission. These four patients infected eight others. The secondary diseases were Chicken Pox two cases, Whooping Cough one case, and Measles one case.

DIPHTHERIA.

Two hundred and ten patients were admitted to the Wards notified as cases of Diphtheria. The diagnosis was confirmed in 183 cases.

The average duration of stay of 169 patients discharged on completion of treatment was 30·7 days.

Type of the Disease.

The disease was of a mild type, the majority of the deaths occurring in the laryngeal form of the disease. There were no hæmorrhagic cases.

Case Mortality Rate.

There were nine deaths, a mortality rate of 4·95 per cent. If two deaths be excluded, which occurred in patients who had no clinical signs of the disease, but who had positive nose or throat swabs and suffered from another disease, the case mortality rate was 3·82 per cent.

Sites of the Disease.

The cases were classified according to the sites of the disease as follows :—

Site.	No. of cases.	Percentage of total cases.	Deaths.	Case Mortality per cent.
Fauces and Nasopharynx ...	128	77·58	2	1·56
Fauces and Larynx	18	10·9	16·97	5	17·86
Larynx	10	6·06			
Nose	8	4·85			
Prepuce	1	0·61			

Complications.

In keeping with the mild type of the disease the incidence of complications was low.

The paralytic complications were classified as follows :—

Paralysis	No. of Cases		Percentage of Total Cases
All types	14	.....	7·65
Palate	7	.....	3·83
Eye	3	.....	1·7
Hemiplegia	1	.....	0·58

Laryngeal Diphtheria.

There were 28 cases in whom the larynx was affected either primarily or secondarily.

Operative interference was necessary in six cases, intubation being performed in one case and tracheotomy in five cases. The mortality rate in cases requiring operative treatment was 50 per cent.

Cross Infection.

Eight patients developed a secondary infection. Of these three were infected before admission, namely Measles one case, Chicken Pox one case, Bacillary Dysentery one case.

MEASLES.

There were 84 cases of Measles admitted during the year. These patients were either admitted from other institutions or had a severe complication which made treatment at home difficult.

Broncho Pneumonia was present in 42 cases, that is in 50 per cent., and caused 17 deaths. Enteritis was present in 10 cases on admission. Laryngitis occurred in two cases and Gastric Hæmorrhage in one case. The case mortality rate was 20·24 per cent.

ERYSIPELAS.

Forty-one cases were admitted during the year and six patients died. The case mortality rate was 14·63 per cent.

ENTERIC FEVER.

There were four cases of Enteric Fever. The infecting organism was the Bacillus Typhosus in three cases, one of whom died, and the Bacillus Paratyphosus B. in one case.

CEREBRO SPINAL FEVER.

Of six cases admitted three died. The case mortality rate was 50 per cent.

SMALL POX.

Of 30 patients admitted to Thornton Small Pox Hospital, 26 were diagnosed as cases of Small Pox. There were no deaths.

OTHER DISEASES.

Patients admitted suffering from other conditions to which reference has not yet been made were classified as follows :—

Disease.	Total No. of Cases.	Deaths
INFECTIOUS DISEASES:—		
Chicken Pox	21	—
Influenza	4	—
Rubella	1	—
Whooping Cough	2	—
Bacillary Dysentery	1	—
Vincent's Angina	1	—
PULMONARY DISEASES	8	4
PUERPERAL DISEASES:—		
Septicæmia	8	1
Mania	1	—
Mastitis	2	—
Phlebitis	1	—

SEPTIC CONDITIONS:—		
Ear, Nose, and Throat	35	—
Cellulitis of Face	1	—
Cellulitis of Orbit	1	1
Cellulitis of Abdominal Wall	1	—
Cellulitis of Arm after Vaccination	1	—
Septic Abortion	6	—
Submanillary Abscess	1	—
DISEASES OF ALIMENTARY CANAL:—		
Constipation	2	—
Acute Gastritis	1	—
Gastric Ulcer	1	—
Gastro-Enteritis	4	—
SKIN DISEASES:—		
Various Erythemata	14	—
Insect Bites	1	—
Pityriasis Rubra	1	—
OTHER DISEASES AND CONDITIONS:—		
General Medical Cases (St. Luke's)	28	3
Breast-fed Babies admitted with Mothers	13	—
Acute Prepatellar Bursitis	1	—
Acute Catarrhal Jaundice	1	—
Conjunctivitis	1	—
Injury to Hip	1	—
Pott's Fracture	1	—
Sub-acute Rheumatism	3	—
Total	169	9

EAR, NOSE AND THROAT CASES.

The local authority has treated in this hospital for some years operative cases of diseases of the Ear, Nose and Throat occurring among children referred from the various clinics. The following is a summary of cases treated in 1931: Tonsillectomy and Adenoid Curettage, 1,009 cases; Turbinectomy, 1 case.

Of these cases 869 were reported from the Bradford School Clinics, 62 from the Bradford Maternity and Child Welfare Clinics, and 79 from the other Education Authorities by special arrangements.

SICKNESS OF THE SAFF.

Thirty-one members of the nursing and domestic staff were treated in this hospital for various conditions. The number of days lost to the hospital on this account was 343.

There was one case of Scarlet Fever and one case of Diphtheria. Other diseases affecting the staff were: Septic Condition of the Throat, 13 cases; Influenza, 5 cases; Gastro-enteritis, 5 cases; Gastric Ulcer, 1 case; Jaundice, 1 case; Acute Prepatellar Bursitis, 1 case; Conjunctivitis 1 case; Subacute Rheumatism, 1 case; Injury to Ankle, 1 case.

The usual tabular statements follow.

In conclusion I wish to record my appreciation of the services of the Assistant Medical Officer, Dr. S. L. Rook, the Matron, Miss M. M. Lewis, and the other members of the Staff.

TABLE SHOWING NUMBER OF CASES ADMITTED DURING EACH MONTH.

1931 Month	Scarlet Fever			Diphtheria			Enteric Fever			Other Diseases			Total Admissions		
	M.	F.	T'tal	M.	F.	T'tal	M.	F.	T'tal	M.	F.	T'tal	M.	F.	Total
January	26	29	55	12	11	23	—	1	1	9	12	21	47	53	100
February	28	33	61	8	10	18	—	—	—	9	22	31	45	65	110
March	24	31	55	8	3	11	—	—	—	12	56	68	44	90	134
April	19	26	45	3	7	10	1	1	2	16	23	39	39	57	96
May	29	29	58	2	3	5	—	—	—	11	15	26	42	47	89
June	26	41	67	7	10	17	—	—	—	13	10	23	46	61	107
July	28	36	64	5	10	15	—	—	—	5	10	15	38	56	94
August	11	23	34	6	6	12	—	—	—	26	19	45	43	48	91
September	29	27	56	7	5	12	—	1	1	1	10	11	37	43	80
October	13	16	29	7	8	15	—	—	—	1	9	10	21	33	54
November	15	27	42	8	10	18	—	—	—	7	9	16	30	46	76
December	12	12	24	10	17	27	—	—	—	9	12	21	31	41	72
Total	260	330	590	83	100	183	1	3	4	119	207	326	463	640	1103

TABLE SHOWING AGE AND SEX INCIDENCE IN SCARLET FEVER AND DIPHTHERIA.

Age	Scarlet Fever							Diphtheria						
	Males		Females		Total		Fatality Rate per cent.	Males		Females		Total		Fatality Rate per cent.
	Admitted	Died	Admitted	Died	Admitted	Died		Admitted	Died.	Admitted	Died	Admitted	Died	
Under 1	2	—	—	—	2	—	—	2	—	2	1	4	1	25·0
1—2	7	—	8	—	15	—	—	4	1	2	—	6	1	16·6
2—3	18	—	19	—	37	—	—	11	—	1	—	12	—	—
3—4	23	—	30	—	53	—	—	8	1	4	1	12	2	16·6
4—5	26	—	33	—	59	—	—	8	—	5	—	13	—	—
Total under 5	76	—	90	—	166	—	—	33	2	14	2	47	4	8·5
5—10	114	1	122	—	236	1	0·42	27	3	33	—	60	3	5·0
10—15	33	—	45	—	78	—	—	16	1	27	—	43	1	2·3
15—20	13	—	26	—	39	—	—	3	—	6	—	9	—	—
20—25	8	—	20	—	28	—	—	1	—	8	—	9	—	—
25—30	8	—	14	—	22	—	—	1	—	1	—	2	—	—
30—35	2	—	8	—	10	—	—	—	—	4	—	4	—	—
35—40	2	—	4	—	6	—	—	—	—	1	—	1	—	—
40—45	2	—	1	—	3	—	—	1	—	2	—	3	—	—
45—50	—	—	—	—	—	—	—	1	1	3	—	4	1	25.0
50—55	1	—	—	—	1	—	—	—	—	—	—	—	—	—
55—60	1	—	—	—	1	—	—	—	—	1	—	1	—	—
Total	260	1	330	—	590	1	0·17	83	7	100	2	183	9	4·9

Summary.

Year.	Small-pox.			Enteric Fever.			Scarlet Fever.			Diphtheria.			Other Diseases.			Totals.			From 1920 to 1931.	
	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Aggregate No. of days spent in Hospital.	Average No. of days for each Patient.
1920	—	—	—	25	3	12·0	721	11	1·52	347	22	6·34	134	22	17·9	1,227	58	4·8	41,104	33·5
1921	—	—	—	14	5	35·7	727	12	1·65	282	18	6·38	169	24	14·2	1,192	59	4·9	38,815	32·5
1922	—	—	—	9	1	11·1	924	19	2·05	256	7	2·73	79	8	10·12	1,268	35	2·8	48,753	38·3
1923	—	—	—	13	2	15·4	511	4	0·78	188	14	7·4	187	38	20·3	899	58	6·4	30,465	33·8
1924	—	—	—	13	—	—	334	2	0·59	163	5	3·6	134	21	15·7	644	28	4·3	21,493	33·7
1925	—	—	—	5	1	20·0	387	3	0·77	274	12	4·57	306	42	13·7	972	58	5·96	30,318	31·2
1926	—	—	—	9	—	—	450	—	—	254	16	6·29	223	15	6·72	936	31	3·31	29,127	31·1
1927	—	—	—	11	1	9·0	335	—	—	292	26	8·9	254	31	12·2	892	57	5·6	25,475	28·5
1928	140	4	2·85	12	2	16·6	812	3	0·37	132	4	3·03	126	11	8·6	1,222	24	1·9	35,129	28·7
1929	—	—	—	3	1	33·3	1,103	9	0·81	338	39	11·5	232	23	10·3	1,676	72	4·3	49,060	29·3
1930	—	—	—	5	—	—	875	12	1·37	271	18	6·64	153	13	8·5	1304	43	3·29	38,216	29·3
1931	26	—	—	4	1	25·0	590	1	0·17	183	9	4·92	326	35	10·74	1103	46	4·17	36,672	33·2

VIII.—HOUSING.

(1) *New Houses in* 1931. The average number of new houses certified as fit for human habitation annually during the five years preceding 1917 was 314, and the following statement shows the number so certified each year since then.

Year	New Houses	Year	New Houses	Year	New Houses
1917	32	1922	480	1927	2,069
1918	38	1923	257	1928	1,927
1919	6	1924	711	1929	958
1920	38	1925	1,521	1930	508
1921	479	1926	2246	1931	504
1917-21	119 (average)	1922-26	1043 (average)	1927-31	1,193 (average)

The number of new houses built during the past ten years in each Ward and certified as fit for human habitation in accordance with the Bradford Waterworks and Improvement Act, 1871, is shown in the table on the following page.

The position with regard to house building by the City Council on the 31st December, 1931, was as follows :—

The number of houses under contract at the end of the year was 652, of which 36 were of the " A " 2 type, 572 " A " 3 type, and 44 " B " type. The number of houses in course of erection then was 588, while during the year 120 houses had been completed by the Corporation and occupied. In addition to these there were 254 houses being built by private enterprise at the close of the year.

The total number of new houses built in the City during the 12 years ended 31st December last is 11,783; 6,550 of these houses have been built by the local authority with State assistance; 3,756 houses were built by private enterprise with the aid of the Government subsidy under the Housing Act, 1923; 66 houses and shops were built by the local authority without State assistance, and 1,411 houses were built by private enterprise without State assistance.

The type and accommodation of the houses built by the local authority, together with their locality, are set out on the table on page 130.

New Buildings.

Showing number of New Buildings certified as fit for habitation in each of the Wards, and in the whole City, during the years 1922-1931.

Wards	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Allerton	2	4	25	140	585	481	176	172	32	147
Bolton	2	2	5	58	125	203	388	36	11	22
Bradford Moor	137	59	193	176	176	110	29	46	24	11
Clayton	14	12	17	12	53	40	33	38	25	18
East	—	—	9	14	3	12	—	—	—	—
East Bowling	—	1	—	3	5	36	8	—	9	13
Eccleshill	2	21	66	84	180	304	686	173	43	68
Exchange	—	—	1	—	—	—	1	—	—	—
Great Horton	244	95	71	84	81	161	88	56	26	78
Heaton	7	14	15	33	25	32	—	7	16	14
Idle	8	13	105	106	150	216	87	54	9	40
Listerhills	—	—	2	—	—	—	—	—	3	—
Little Horton	2	3	12	17	36	51	45	57	22	15
Manningham	—	—	10	18	8	15	5	116	144	—
North	—	—	—	3	—	3	—	—	2	—
North Bierley East	1	2	58	403	397	134	264	52	14	13
North Bierley West	60	27	88	213	251	100	74	88	69	35
South	—	—	—	—	6	—	—	—	—	—
Thornton	1	2	7	58	134	118	24	2	3	8
Tong	—	—	2	3	4	2	2	1	1	2
West	—	—	—	56	1	—	—	—	12	—
West Bowling	—	2	25	40	26	51	17	60	43	20
City Total	480	257	711	1521	2246	2069	1927	958	508	504

(2) *Overcrowding.* Many very serious cases of overcrowding continue to come to the knowledge of the department during the year, but despite the increase in the provision of houses there still remains a great scarcity of housing accommodation, which complicates the position. On the 31st December, 1931, the number of applicants for new houses was approximately 3,263, 632 of whom are living in apartments.

Types of Houses Built by the Local Authority.

1920 to 1931.

Site	Parlour and 4 bed-rooms	Parlour and 3 bed rooms	Non-parlour 3 bed-rooms	Non-parlour 2 bed-rooms	Houses for aged persons	Flats	Total	Houses and Shops
Odsal	—	28	386	40	—	—	454	4
Thornbury	—	20	130	16	—	—	166	2
Bradford Moor ...	12	114	468	74	—	—	668	12
Scholemoor	10	122	360	12	—	—	504	6
Thackley	—	—	58	—	—	—	58	—
Eccleshill	—	120	718	40	—	—	878	6
Shirley Manor ...	—	—	350	—	—	—	350	4
Chellow Grange ...	—	8	102	8	—	—	118	—
Bierley	—	50	814	—	—	—	864	16
Thornton	—	100	200	20	—	—	320	—
Swain House ...	—	32	654	52	—	—	738	8
Lower Grange ...	—	68	718	30	—	—	816	8
Whetley Lane ...	—	—	180	36	24	—	240	—
Greengates	—	—	40	—	—	—	40	—
Musgrave Road ...	—	—	42	—	—	—	42	—
White Abbey... ...	—	—	40	—	—	—	40	—
Low Moor	—	—	22	—	—	—	22	—
Idle	—	—	86	—	—	—	86	—
Woodhall Place ...	—	—	6	—	—	—	6	—
Clayton	—	1	73	—	—	—	74	—
Longlands	—	—	—	—	—	66	66	—
Totals ...	22	663	5,447	328	24	66	6,550	66

(3) *White Abbey Area Improvement Scheme.* With regard to the scheme all the properties have been acquired, and 83 per cent. of the properties have been demolished. Substitution accommodation has been provided in the 66 tenement dwellings on the Longlands site; 42 houses at Musgrave Road, Eccleshill; 240 houses on the Whetley Lane site; and 40 houses in the White Abbey area. Plans have been prepared for the erection of 78 tenement dwellings to be erected on the site at an estimated cost of £25,510.

(4) Prosecutions, 1931.

Nature of Offence	No. of Cases	Result
Housing Act 1930, Sec. 39—Recovery of possession of buildings subject to Demolition Orders.	9	Orders for possession in 28 days made in 8 cases. The remaining case was withdrawn, possession being obtained prior to date of hearing.

(5) APPEALS UNDER HOUSING ACTS.

(*a*) *Housing Act*, 1925. Appeals to Ministry of Health.

Premises	Nature of Appeal	Result
1, 3, 5 Marsden Street; 159 Mount Street; 2, 4, 6 Sutcliffe Street.	Appeals against Notices of Demolition.	Full amount demanded by Corporation (£44/18/9) to be paid, less 15/-. Defendant also to pay £7/2/4 costs.

(*b*) *Housing Act*, 1930, *Sec.* 17. Appeal to County Court.

Premises	Nature of Appeal	Result
212/242 New Line, Greengates	Notices to execute works.	Appeal pending.

HOUSING STATISTICS, 1931.

Total number of new houses erected during the year	504
(i) By the Local Authority	120
(ii) By other Local Authorities	—
(iii) By other bodies and persons	384

I. Inspection of dwelling-houses during the year.

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	5,806
(2) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	1,142
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	144
(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	2,674

II. Remedy of Defects during the year without service of formal Notices.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers...	526

III. 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	851
(2) Number of dwelling-houses which were rendered fit after service of formal notices—	
(*a*) by owners	388
(*b*) by Local Authority in default of owners	41

B. Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied...	1,360
(2) Number of dwelling-houses in which defects were remedied after service of formal notices—	
(*a*) by owners	1,328
(*b*) by Local Authority in default of owners	12

C. Proceedings under Sections 19 and 21 of the Housing Act, 1930.

(1) Number of dwelling-houses in respect of which demolition orders were made	25
(2) Number of dwelling-houses demolished in pursuance of demolition orders	6
(3) Number of dwelling-houses in respect of which undertakings were given that houses would not be used for human habitation	43
(4) Number of dwelling-houses in respect of which undertakings were given that houses would be rendered fit for human habitation	63
(5) Number of dwelling-houses in respect of which undertakings were complied with to the satisfaction of the Local Authority	15

D. Proceedings under Section 20 of the Housing Act, 1930.

(1) Number of separate tenements or underground rooms in respect of which closing orders were made	—
(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. Proceedings under Section 3 of the Housing Act, 1925.

Number of dwelling-houses which were rendered fit after service of formal notices—	
(*a*) by owners	—
(*b*) by local authority in default of owners	—

F. Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925.

(1) Number of dwelling-houses in respect of which closing orders were determined, the dwelling-houses having been rendered fit...	12
(2) Number of dwelling-houses in respect of which demolition orders were made	1
(3) Number of dwelling-houses demolished in pursuance of demolition orders	37

IX.—MISCELLANEOUS.

(A) GENERAL DENTAL WORK.

The work carried out at the Health Committee's Dental Clinic has followed the practice of previous years and steady progress has been maintained.

St. Luke's Hospital has been visited regularly bi-weekly.

Bierley and Grassington Sanatoria have been visited every four or five weeks and the Mental Institutions visited bi-annually.

Patients from the Institutions under the control of the Public Assistance Committee have been attended to at the Clinic, and these Institutions have been visited when necessary.

Patients from the Ante-natal Clinics continue to attend in increasing numbers, a former disinclination of this type of patient to attend for treatment being gradually overcome.

The denture work carried out by the department continues to increase. The cost of this work is more than covered by the patients themselves. A tabular statement of the work done is given on page 135.

(B) AMBULANCE WORK AND DISINFECTION.

The ambulance facilities for the city are as follows :—At the City Fever Hospital there is provided a motor ambulance, which during 1931 removed 1,200 cases to Hospital. At the Municipal General Hospital three motor ambulances are provided, which in addition to removing cases to the General Hospital, also removed cases to Bierley Hall Sanatorium and the voluntary institutions in the city, involving 3,264 journeys, with a mileage of 19,431. The police maintain a motor ambulance for street casualties. Two motor ambulances are maintained for the removal of physically defective children to school and one motor ambulance is maintained at Grassington for the removal thereto of cases of Pulmonary Tuberculosis.

The total number of articles disinfected at the Disinfecting Station, Canal Road, was 7,917, as against 11,535 last year. The number of houses disinfected by the Disinfecting Officer was 1,901, as against 1,802 last year. In addition disinfection was carried out at the request of manufacturers, property owners, and others, for which charges were made amounting to £67 14s. 2d. The revenue from this source last year was £21 5s. 6d.

(C) PUBLIC MORTUARY AND CREMATORIUM.

During the past year 121 bodies have been deposited and 44 post-mortem examinations made in the Public Mortuary. Since the opening in October, 1910, 1,972 bodies have been deposited.

The remains of 77 persons were cremated during 1931 at the Scholemoor Crematorium, in comparison with 49 during the previous year.

The table on page 136, prepared by the Cremation Society of Great Britain, shows the number of Cremations carried out in Great Britain since the year 1885.

TABLE SHOWING WORK CARRIED OUT AT THE DENTAL CLINIC DURING THE YEAR.

Source	Number of Patients	Number of Patient's Visits	Temporary Teeth Extracted	Temporary Teeth Filled	Permanent Teeth Extracted	Permanent Teeth Filled	Scalings	Dentures Repairs, etc.	Gas, Ether and Chloro-form	Other Operations		
										Root Cases	Dressings	Crowns & Regs
St. Luke's Hospital	357	575	37	—	1371	87	43	76	106	3	14	–
Tuberculosis Scheme ...	316	425	75	7	396	107	12	41	39	—	69	–
Maternity	214	675	—	—	1083	45	16	116	112	2	16	–
Infants & young Children ...	477	528	1189	165	—	—	—	—	268	—	—	–
School Children ...	32	116	—	—	2	17	—	15	1	5	12	6
Mental Institutions	49	88	2	—	64	56	17	7	6	—	2	–
Public Assistance	56	170	—	—	176	2	4	46	12	—	—	–
Totals ...	1501	2577	1303	172	3092	314	92	301	544	10	113	6

Table of Cremations carried out in Great Britain since the year 1885.

Crematorium	1885 1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	Total
Woking ...	3440	125	128	124	153	125	129	142	181	149	159	193	170	235	271	305	320	344	426	446	476	8041
Manchester ...	1586	149	172	184	165	179	178	197	235	203	228	189	227	251	287	303	357	367	443	442	508	6850
Glasgow ...	391	44	49	57	63	65	65	74	84	80	87	75	90	87	116	98	129	141	172	121	158	2246
Liverpool ...	551	52	66	48	54	58	62	69	89	69	75	74	62	74	75	96	101	103	103	160	163	2204
Hull	227	27	23	16	34	25	24	43	46	30	43	45	45	47	42	55	70	72	97	84	128	1223
Darlington ...	72	15	11	11	16	10	15	17	26	18	20	17	21	28	32	33	38	39	56	52	62	611
Golder's Green	2965	591	602	671	730	633	719	820	919	851	893	939	920	1114	1214	1270	1459	1483	1797	1787	1866	24243
Leicester ...	116	14	11	7	22	23	30	42	36	32	36	23	36	40	57	70	68	61	124	119	89	1057
Birmingham	230	40	59	53	45	63	49	64	76	72	78	98	75	97	126	128	150	157	205	180	257	2302
Leeds ...	119	24	16	28	20	22	17	34	30	26	31	31	27	47	48	40	59	60	66	73	109	927
Ilford ...	135	32	21	42	45	43	68	70	68	58	57	70	69	68	66	84	95	103	99	112	112	1518
Bradford ...	72	9	15	18	12	11	10	20	31	20	24	25	23	24	32	32	50	45	47	49	77	646
Sheffield ...	79	12	15	20	21	14	25	50	41	32	29	38	37	32	48	43	57	51	81	59	87	871
Norwood ...	—	—	—	—	30	89	118	153	169	156	162	186	178	240	266	299	279	306	410	390	415	3847
Hendon Park	—	—	—	—	—	—	—	—	—	—	—	6	6	7	7	8	11	11	14	12	13	97
Pontypridd ...	—	—	—	—	—	—	—	—	—	—	—	—	—	4	14	13	22	20	28	40	43	184
Bristol ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	71	116	143	177	507
Ipswich ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	37	55	68	162
Edinburgh ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20	125	169	314
Brighton ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78	144	222
Guernsey ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	4	10
Nottingham...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	70	70
Total ...	9983	1134	1188	1279	1410	1360	1509	1795	2031	1796	1922	2009	1986	2395	2701	2877	3265	3436	4341	4533	5195	58152

APPENDIX.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1931 AND PREVIOUS YEARS.

Year.	Population estimated to Middle of each Year.	Births.			Total Deaths Registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.			
		Uncorrected Numbers.	Nett.						Under 1 Year of Age.		At all Ages.	
			Number.	Rate.	Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Number.	Rate per 1,000 Nett. Births.	Number.	Rate.
1926	288,700	4717	4708	16·31	3884	13·45	164	201	435	92	3921	13·58
1927	293,200	4316	4318	14·73	4218	14·39	193	246	404	94	4271	14·57
1928	288,500	4471	4421	15·32	3875	13·43	192	242	307	69	3925	13·60
1929	289,200	4396	4347	15·03	4516	15·62	215	227	346	80	4528	15·66
1930	293,254	4445	4376	14·92	4073	13·63	233	180	327	75	4020	13·45
1931	300,900	4167	4081	13·56	4437	14·75	321	161	292	71	4277	14·21

TABLE II.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1931.

Notifiable Disease.	Cases notified in Whole District.								Total Cases notified in each Locality.																				Total Cases Removed to Hospital.
	At all Ages.	At Ages—Years.							Allerton.	Bolton.	Bradford Moor.	Clayton.	East.	East Bowling.	Eccleshill.	Exchange.	Great Horton.	Heaton.	Idle.	Listerhills.	Little Horton.	Manningham.	North.	North Bierley East.	North Bierley West.	South.	Thornton.	Tong.	West.	West Bowling	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	Over 65.																						
Smallpox	26	–	—	5	6	9	5	1	—	—	—	—	—	—	—	—	4	—	—	7	—	—	—	1	6	1	4	—	1	2	26
Diphtheria	247	6	52	134	27	22	6	–	7	10	16	3	13	12	13	1	23	14	1	8	18	22	7	14	19	15	2	8	7	14	222
Erysipelas	141	3	3	4	3	33	67	28	4	4	3	1	5	8	3	1	13	4	4	9	7	15	7	7	5	6	3	1	6	25	38
Scarlet Fever ...	920	3	241	527	89	56	4	–	54	45	131	11	34	62	57	3	83	32	24	25	38	47	10	30	63	29	30	17	36	59	733
Enteric Fever ...	6	–	—	1	2	1	1	1	—	1	1	—	—	2	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	4
Puerperal Fever ...	41	–	—	—	16	25	–	–	—	1	3	—	3	4	4	1	2	1	—	2	7	2	1	3	1	2	1	1	—	2	26
Puerperal Pyrexia	58	–	—	—	22	36	–	–	—	1	4	1	6	6	3	1	—	1	1	3	16	5	1	2	—	3	—	1	1	2	37
Cerebro-Spinal Meningitis ...	7	–	1	3	2	1	–	–	—	—	2	—	—	—	1	—	—	—	—	—	2	—	1	—	—	—	—	—	1	—	7
Poliomyelitis ...	1	–	—	1	–	–	–	–	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Ophth. Neonatorum	27	27	—	—	–	–	–	–	1	1	2	—	3	1	3	—	1	1	2	3	2	1	2	1	—	—	—	2	1	—	6
Measles	3592	132	2000	1419	30	8	3	–	208	147	361	198	285	261	225	34	98	126	27	134	97	228	136	247	159	298	63	22	110	128	—
German Measles ...	66	4	27	34	1	–	–	–	4	1	4	—	—	14	2	1	9	1	2	2	4	1	—	6	3	3	2	1	5	1	—
Whooping Cough ...	568	44	315	202	4	1	2	–	20	39	87	—	63	9	38	9	32	39	14	7	14	64	38	8	7	27	—	3	21	29	—
Chicken Pox ...	1763	60	633	1015	38	14	3	–	57	24	190	8	82	70	34	13	174	46	29	94	86	137	45	124	159	125	81	8	23	154	—
Pulmonary Tuberculosis ...	376	–	7	22	91	156	91	9	8	17	39	8	34	16	19	7	20	10	7	23	24	22	29	13	3	29	5	3	18	22	—
Other forms of Tuberculosis ...	117	1	9	55	30	14	8	–	2	2	11	2	9	4	2	1	9	1	2	6	11	9	4	10	4	11	—	3	7	7	—
Infective Enteritis	11	1	6	3	–	1	–	–	—	—	—	—	—	1	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	6	6
Anthrax	1	–	—	—	1	–	–	–	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Polio-encephalitis ...	—	–	—	—	–	–	–	–	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica ...	2	–	—	—	1	–	1	–	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	2
Pneumonia ...	670	56	163	132	61	116	121	21	31	25	54	—	49	38	20	5	37	28	17	36	78	50	47	33	13	41	3	12	32	21	65
Malaria	6	–	—	—	–	6	–	–	—	—	3	—	—	1	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Dysentery	9	4	—	1	2	1	1	–	—	—	1	—	—	—	—	—	—	2	—	—	5	—	—	—	—	—	—	—	—	1	1
Totals ...	8655	341	3457	3558	426	500	313	60	396	318	912	232	586	509	425	77	507	308	130	359	413	603	328	499	442	591	196	82	269	473	

TABLE III.

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE DURING THE YEAR 1931.

Causes of Death	All Ages	0 to 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 and upwards
All Causes...	4277	292	61	57	80	112	156	264	511	751	1076	917
Typhoid and Paratyphoid Fevers	2	—	—	—	—	—	1	1	—	—	—	—
Measles	30	2	13	10	5	—	—	—	—	—	—	—
Scarlet Fever	1	—	—	—	1	—	—	—	—	—	—	—
Whooping Cough...	6	3	1	2	—	—	—	—	—	—	—	—
Diphtheria	11	1	1	2	7	—	—	—	—	—	—	—
Influenza	124	4	2	1	2	—	5	8	22	26	31	23
Encephalitis Lethargica	2	—	—	—	—	—	1	—	1	—	—	—
Cerebro-spinal Fever	4	—	—	1	2	1	—	—	—	—	—	—
Tuberculosis of Respiratory System	237	2	1	—	2	52	37	50	45	32	16	—
Other Tuberculous Diseas s	44	3	4	4	6	5	3	8	7	3	1	—
Syphilis	7	1	—	—	—	—	—	—	3	3	—	—
General Paralysis of the Insane, Tabes Dorsalis	18	—	—	—	—	—	1	8	7	1	1	—
Cancer, Malignant Disease	486	—	—	—	—	—	8	39	92	132	154	61
Diabetes	44	—	—	—	—	1	3	1	5	16	15	3
Cerebral Hæmorrhage, etc.	257	—	—	—	—	1	2	2	21	50	98	83
Heart Disease	868	—	—	—	2	8	14	27	102	174	287	254
Aneurysm	3	—	—	—	—	—	—	—	3	—	—	—
Other Circulatory Diseases	234	—	—	—	—	—	—	2	6	34	75	117
Bronchitis...	183	12	2	1	—	—	2	7	11	36	55	57
Pneumonia (all forms)	282	48	20	19	11	8	11	20	31	44	43	27
Other Respiratory Diseases	31	—	1	1	2	—	—	6	9	7	2	3
Peptic Ulcer	37	—	—	—	—	1	2	6	6	15	5	2
Diarrhoea, etc.	53	22	2	4	2	—	1	1	1	7	8	5
Appendicitis	26	—	—	1	4	2	3	3	9	1	3	—
Cirrhosis of Liver	21	—	—	—	—	2	—	—	5	6	6	2
Other Diseases of Liver, etc.	33	3	—	—	—	1	1	1	6	10	7	4
Other Digestive Diseases	72	2	1	—	3	1	3	7	16	11	19	9
Acute and Chronic Nephritis	190	—	1	1	2	2	9	9	40	46	50	30
Puerperal Sepsis	7	—	—	—	—	2	5	—	—	—	—	—
Other Puerperal Causes	13	—	—	—	—	1	7	5	—	—	—	—
Congenital Debility, Premature Birth, Malformations, etc.	130	123	4	1	1	1	—	—	—	—	—	—
Senility	252	—	—	—	—	—	—	—	—	3	81	168
Suicide	42	—	—	—	—	—	4	12	12	9	4	1
Other Violence	137	5	1	4	14	8	12	7	14	17	24	31
Other Defined Diseases	367	61	7	5	14	15	20	33	33	62	81	36
Causes ill-defined or unknown	23	—	—	—	—	—	1	1	4	6	10	1

TABLE IV.

INFANT MORTALITY, 1931. NETT DEATHS FROM STATED CAUSES AT VARIOUS AGES UNDER 1 YEAR OF AGE.

CAUSES OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.
Smallpox	—	—	—	—	—	—	—	—	—	—
Chicken-pox	—	—	—	—	—	—	—	—	—	—
Measles	—	—	—	—	—	—	—	1	1	2
Scarlet Fever	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	1	—	2	3
Diphtheria and Croup ...	—	—	—	—	—	—	1	—	—	1
Erysipelas	—	—	—	—	—	1	—	—	—	1
Tuberculous Meningitis ...	—	—	—	—	—	—	—	—	2	2
Tuberculosis of Intestines and Peritoneum	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Diseases	—	—	—	—	—	—	1	—	2	3
Meningitis (*not Tuberculous*)	—	—	—	—	—	—	1	3	1	5
Convulsions	9	4	—	—	13	—	6	1	—	20
Laryngitis	—	—	—	—	—	—	—	—	—	—
Bronchitis	—	—	1	—	1	5	3	1	2	12
Pneumonia (all forms) ...	3	1	1	1	6	10	12	11	9	48
Diarrhœa and Enteritis ...	—	—	2	1	3	7	7	3	2	22
Gastritis	—	—	—	—	—	—	—	—	—	—
Syphilis	—	—	—	—	—	—	1	—	—	1
Rickets	—	—	—	—	—	—	—	—	1	1
Suffocation, overlying ...	1	—	—	—	1	1	1	1	—	4
Injury at birth	—	1	—	—	1	—	—	—	—	1
Atelectasis	14	4	—	—	18	—	—	—	—	18
Congenital Malformations	15	1	—	—	16	5	2	1	—	24
Premature Birth	54	10	2	4	70	7	2	2	—	81
Atrophy, Debility and Marasmus	4	1	3	—	8	6	2	—	1	17
Other Causes	8	1	3	3	15	3	2	4	2	26
All Causes ...	108	23	12	9	152	45	42	28	25	292

Nett Births in the year—Legitimate, 3836; illegitimate, 245.
Nett Deaths in the year—Legitimate infants, 262; illegitimate infants, 30.

TABLE V.

Public Health (Tuberculosis) Regulations, 1930.

Summary of Notifications during the period from 28th December, 1930, to the 2nd January, 1932.

Age Periods	Number of Notifications on Form A												
	Primary Notifications												Total Notifications (i.e., including cases previously notified by other doctors)
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total	
Pulmonary:—													
Males	—	3	3	8	14	26	40	40	38	21	7	200	247
Females	—	4	8	3	22	29	45	31	22	10	2	176	192
Non-pulmonary:—													
Males	1	4	21	12	9	6	7	1	3	2	—	66	71
Females	—	5	11	11	8	7	5	1	3	—	—	51	56

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CITY OF BRADFORD

ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER

1931

P4257—150 (531)

2. CO-ORDINATION.—The School Medical Officer is also Medical Officer of Health, and there is, as far as possible co-operation between all branches of the Medical Staff dealing with childhood. For this purpose there is a joint Health and Education Medical Sub-Committee, which deals with questions referred from the Education Committee.

3. SCHOOL HYGIENE.—On the occasion of each routine inspection of the children at the School the Medical Officer surveys and reports upon the hygienic conditions of the School. In Schools where children have to come from a distance, facilities are provided for the warming of meals brought to School by the children, and where it is necessary arrangements are made for the children to be supervised by a teacher. Tickets for meals, at the Committee's Dining Centres, are obtained by the children in all the schools on payment of full cost, which is very small. The undermentioned table is an analysis of the hygienic conditions tabulated from the summary sheets which are completed by the Medical Officers at the close of each school inspection :—

ANALYSIS OF SUMMARY SHEETS. Items in Schools reported on	Conditions found	
	Provided Schools Inspected 116	Non-provided Schools Inspected 66
1.—Surroundings:—		
Open	100	30
Thickly populated	16	36
2.—Ventilation:—		
Natural, Satisfactory	82	55
Unsatisfactory	7	11
Artificial, Satisfactory	17	—
Unsatisfactory	10	—
3.—Lighting:—		
Natural, Satisfactory	113	61
Unsatisfactory	3	5
Artificial, Satisfactory	112	61
Unsatisfactory	4	5
4.—Heating:—		
Satisfactory	111	65
Unsatisfactory	5	1
5.—Furniture:—		
(*a*) Desks: Old-fashioned, Satisfactory	1	2
Unsatisfactory	6	26
Modern Desks, Satisfactory	102	33
Unsatisfactory	7	5
(*b*) Blackboards: Wall and Easel, Satisfactory	113	60
Unsatisf'ct'ry	3	6
6.—Water Supply:—		
(*a*) Washing (towels, etc.), Adequate	112	63
Inadequate	4	3
(*b*) Drinking Cups, Sufficient	114	65
Insufficient	2	1

7.—Cloakroom:—		
(*a*) Condition, Satisfactory	106	47
Unsatisfactory	10	19
(*b*) Arrangements for drying clothes etc.		
Present	42	23
Absent	74	43
8.—Condition and Cleanliness of Walls and Floors:—		
Satisfactory	101	56
Unsatisfactory	15	8
9.—Sanitary Conveniences:—		
(*a*) Lavatories, Satisfactory	104	52
Unsatisfactory	4	8
Satisfactory, but insufficient ...	8	6
(*b*) W.C.'s Trough System, Satisfactory ...	90	39
Unsatisfactory ...	24	19
Satisfactory, but insufficient ...	1	5
Automatic Flush ...	—	2
Individual Automatic Flush	—	1
Pail System, Unsatisfactory	1	—
(*c*) Urinals, Satisfactory	90	46
Satisfactory, but insufficient ...	—	1
Unsatisfactory	8	8
Hand-flushed, Unsatisfactory ...	3	5
10.—Playgrounds, Satisfactory	100	28
Satisfactory, but inadequate ...	8	24
Unsatisfactory	7	14

A comparison of this Table with the one given in the 1930 Report shows that improvements have taken place in the Schools. In nearly all the items reported on, the number satisfactory has increased, and the unsatisfactory decreased. The most notable improvements are shown in Desks, W.C.'s, Urinals and Playgrounds.

4. MEDICAL INSPECTION.—(*a*) During the year 1931, a Routine Medical Inspection was carried out in every school in Bradford. The numbers of children examined in the three Code Groups show an increase of 1,056 above the numbers examined in 1930, and those in Other Routine Inspections, which include Candidates for entrance to Secondary Schools, a decrease of 54. Special and Nursery Schools show increases of 63 and 34, and those for Secondary Schools an increase of 370, making a net increase in the number of children inspected 1,469. Special Inspections of Elementary, Special and Nursery children show an increase of 1,164, re-inspections a decrease of 564. Special Inspections of Secondary School Children record an increase of 181, and a decrease of 133 Re-inspections. These figures give a net increase of 648 Inspections.

The classes of children medically inspected, with the numbers in each class examined, are as follows:—

(1)	Children admitted for the first time during the year (Entrants)	4389
(2)	Children 8 years of age (Intermediates)	4330
(3)	Children expected to leave School during the year (Leavers)	2147
(4)	Other Ages	968
(5)	Children attending Council Secondary Schools and Bradford Grammar Schools	4233
(6)	Candidates for Secondary Schools	1489
(7)	Children attending Nursery Schools	436
(8)	Children attending Special Schools	339
	Total	18,331

(*b*) There has been no material departure made from the Board's schedule of inspections.

(*c*) Grave defects are in a large number of cases recognised in Bradford before the children arrive at School age through the agency of notification, health visitors, maternity and child-welfare centres and the like. On admission to School all grave defects noted by the School Teachers are notified to the School Medical Officer, and the children examined at once. A census of all children in the City of school age is taken biennially by the School Attendance Officers, and children who have reached five years of age and whose names are not on any School Register for mental or physical reasons, are reported to the School Medical Officer, who has each case either medically examined at the Clinic or obtains satisfactory medical evidence that the child is not fit to attend School. Many of these cases are treated at the School Clinics or Hospitals under the Authority's Scheme.

5. FINDINGS OF MEDICAL INSPECTION :—

CLOTHING AND FOOTGEAR.—Records of the 18,331 children examined at the Routine Medical Inspections during the year show a decrease in the percentage of children found to have inadequate or unsuitable clothing.

The percentage of those found with inadequate or unsuitable clothing was 0·02 and footgear 0·08 against 0·05 and 0·15 in 1930.

Code Group	Numbers Inspected	Clothing Inadequate or unsuitable				Footgear Inadequate or unsuitable			
		B	G	T	%	B	G	T	%
Entrants	4389	—	—	—	—	2	—	2	0·05
Intermediates ...	4330	—	—	—	—	4	2	6	0·14
Leavers	2147	2	—	2	0·09	1	1	2	0·09
Other Ages... ...	968	—	—	—	—	1	2	3	0·31
Special Schools ...	339	—	1	1	0·30	—	—	—	—
Junior Scholarships	1489	—	—	—	—	—	—	—	—
Secondary Schools...	4233	—	—	—	—	1	—	1	0·02
Nursery Schools ...	436	—	—	—	—	—	—	—	—
Totals ...	18331	2	1	3	0·02	9	5	14	0·08

NUTRITION.—The percentage of children found to be below normal Nutrition at the Routine Medical Inspection during 1931 gives a decrease of 1·06 on the number found in 1930, 7·02 having been found below normal in 1931, as against 8·08 per cent. in 1930. At the Special Inspections held at the School Clinics, 367 Elementary and 26 Secondary School children were found to be suffering from this condition, against 354 Elementary and 16 Secondary in the year 1930. The following Table records the findings of the School Medical Officers at the Routine Inspections:—

Code Group	Numbers Inspected	Boys				Girls			
		Above Normal	Normal	Below Normal	Emaciated	Above Normal	Normal	Below Normal	Emaciated
Entrants	4389	280	1803	161	–	254	1740	135	–
Intermediates ...	4330	308	1717	193	–	308	1559	172	–
Leavers	2147	191	785	84	–	238	740	116	–
Other Ages... ...	968	55	358	69	1	86	330	42	6
Special Schools ...	339	16	118	14	–	29	132	21	–
Junior Scholarships	1489	112	671	48	–	117	526	15	–
Secondary Schools...	4233	751	1317	155	–	140	1787	10	–
Nursery Schools ...	436	20	160	26	–	16	151	21	–
Totals ...	18331	1733	6929	750	1	1188	6965	532	6

(*a*) UNCLEANLINESS.—It is again gratifying to note that the gradual improvement which has taken place for a number of years in the cleanliness of children has been maintained. The following table of Routine Inspections records that out of 18,331 children inspected, only 8 boys and 72 girls were found to have uncleanliness of head, 0·44 per cent.,

and 32 boys and 14 girls uncleanliness of body, 0·24 per cent. The percentages for the six years previously were as follows:—

1930	Head 0·59,	Body 0·37.		1927	Head 0·92,	Body 0·54	
1929	,, 0·60,	,, 0·31.		1926	,, 2·01,	,, 1·62	
1928	,, 0·72,	,, 0·34.		1925	,, 3·48,	,, 2·37	

In taking a review of the question of uncleanliness one must not lose sight of the fact that when a Routine Inspection is going to take place in any school, the parent receives a notification that the child is going to be inspected and in most cases the children are sent cleaner on the day the inspection is to take place than on other days A more reliable figure respecting uncleanliness is got from the Nurses' Inspections re cleanliness, which will be found in paragraph 7 (Following-Up).

When a nurse goes to a school to inspect the children re cleanliness, the parent has received no notice, is not present and the child is seen unprepared.

From the records of the Nurses' Inspections it will be found that although 16,755 more inspections were made, 627 less children were found unclean.

Code Group	Numbers Inspected	Head				Body			
		B	G	T	%	B	G	T	%
Entrants	4389	2	20	22	0·50	11	3	14	0·32
Intermediates ...	4330	2	25	27	0·62	7	5	12	0·28
Leavers	2147	1	9	10	0·47	6	1	7	0.33
Other Ages ...	968	—	—	8	0·83	3	1	4	0·41
Special Schools ...	339	2	2	4	1·18	1	1	2	0·59
Junior Scholarships	1489	—	1	1	0.07	—	1	1	0·07
Secondary Schools	4233	—	6	6	0·14	3	1	4	0·09
Nursery Schools ...	436	1	1	2	0·46	1	1	2	0.46
Totals ...	18331	8	72	80	0·44	32	14	46	0·24

(*b*) Minor Ailments.—It will be seen from Table IV, Group 1, that 8,993 defects in Elementary School children and 486 defects in Secondary School children were treated at the School Clinics during 1931, against 10,322 Elementary and 368 Secondary in 1930, a decrease of 1,329 Elementary and an increase of 118 Secondary.

(*c*) Tonsils and Adenoids.—At the Routine Inspections 2,166 Elementary and 254 Secondary School children were found to have enlarged Tonsils and Adenoids, of whom 1,019 Elementary and 104 Secondary were referred for treatment. At the Special Inspections held at the School Clinics, 327 Elementary and 20 Secondary School children were found, of whom 288 and 19 respectively were referred for treatment.

These figures vary from those of 1930 as follows:—Routine Inspections, Elementary, a decrease of 126 children found; Secondary, a decrease of 4. During the year 809 Elementaryand 22 Secondary School children received operative treatment for tonsils and adenoids under this Authority's Scheme. The figures for 1930 were 927 Elementary and 27 Secondary which record a decrease of 118 Elementary and an increase of 6 Secondary.

In addition to the above-mentioned, 1 Elementary School child received an other operation to Nose and Throat under this Authority, and 36 Elementary and 2 Secondary School children received operative treatment by private practitioners or at hospital.

It is interesting to note the advantage taken by the parents of the Authority's Scheme for Nose and Throat operations. Out of a total of 869 children who are recorded to have received operations, 831 were done by this Authority and 38 by private practitioners or at hospital.

(*d*) Tuberculosis.—18 Elementary and 1 Secondary School children were found at Routine Inspections to be suspected of Pulmonary Tuberculosis. At the Special Inspections held at the School Clinics, 4 Definite and 37 Suspected children were found.

The above-mentioned figures total 60, against 112 in 1930, 96 in 1929 and 115 in 1928. Children suspected to be suffering from Tuberculosis are referred to the Anti-Tuberculosis Centre, where a Special Clinic is held each Friday at 1-30 p.m. These cases are generally admitted to Grassington Sanatorium School, of which particulars will be found in paragraph 17, Section 6, pages 48 and 49.

There were 19 Elementary and 1 Secondary School cases of Non-Pulmonary Tuberculosis found at the Routine Inspections, 11 of which were referred for treatment. From the Special Inspections at the School Clinics, 35 Elementary and 1 Secondary School cases were found; 27 of them being referred for treatment and 9 for observation only. These figures record an increase of 6 Elementary found at the Routine Inspections, and a decrease of 28 at the Special Inspections.

(*e*) Skin Disease.—At the Routine Inspections 335 Elementary and 119 Secondary School children were found with skin diseases; 289 Elementary and 93 Secondary were referred for treatment, whilst 46 Elementary and 26 Secondary required to be kept under observation.

At the Special Inspections 1,620 Elementary and 73 Secondary School children were found; 1,618 Elementary and 71 Secondary required treatment and 2 Elementary and 2 Secondary observation only. These figures show a net decrease of 691 children found with skin diseases compared with those for 1930.

Particulars as to the diseases from which these children suffered will be found in Table II, and those treated in Table IV, Group 1.

(*f*) External Eye Disease.—129 Elementary and 15 Secondary School children were found at the Routine Inspections to be suffering from this disease, whilst 588 Elementary and 25 Secondary School children were discovered at the Special Inspections at the Clinics. These figures show a net decrease of 130 from those of last year.

It will also be found in paragraph 7*b* that 558 external eye defects were discovered in Schools by the Nurses, most of which come under the heading of Special Inspections at the School Clinics. A good number of these cases are also referred to the School Clinics by School Attendance Officers and Teachers.

(*g*) Vision.—It will be noticed from Table II that 892 Elementary and 463 Secondary School children were found at the Routine Inspections to require treatment for defective vision, not including 120 Elementary and 2 Secondary who required treatment for squint. At the Special Inspections, 1,859 Elementary and 233 Secondary were referred for treatment of vision.

The figures for the Routine Inspections show an increase of 21 Elementary and 46 Secondary; those for Special Inspections show a decrease of 84 Elementary and an increase of 30 Secondary children.

The reason for the numbers under the heading of Special Inspections being so much larger than those found at the Routine Inspections is that the vision of all Elementary School Children who do not come within the Code Groups for Medical Inspections is tested annually at the Schools by the Nurses, and if they cannot read the Snellen's Test at 6/12 they are referred to the School Clinic for a further test by the Medical Officer.

(*h*) Ear Disease and Hearing.—From the Routine Inspections 197 Elementary and 41 Secondary School children were found to be suffering from ear diseases or defective hearing, of whom 162 Elementary and 28 Secondary were referred for treatment, and 35 Elementary and 8 Secondary placed under observation. At the Special Inspections 682 Elementary and 13 Secondary School children were found, of whom 662 Elementary and 22 Secondary were referred for treatment, and 20 Elementary placed under observation.

These figures are very similar to those for the year 1930. As in the case of External Eye Diseases, most of the Special Cases found in the Schools by the Nurses are referred to the School Clinics; this accounts for the small numbers found at the Routine Inspections.

(*i*) Dental Defects.—In addition to the annual inspection carried out by the School Dentists, the Doctors make an examination of each child's mouth at Routine Inspections. The numbers of children so found with dental defects during the past three years are shown in the appended tables :—

1931	Numbers Inspected	Less than four teeth decayed	More than four teeth decayed	Oral Sepsis
Boys ...	9561	1915	233	2
Girls ...	8770	2558	253	8
Totals ...	18331	4473	486	10

1930	Numbers Inspected	Less than four teeth decayed	More than four teeth decayed	Oral Sepsis
Boys ...	8630	2099	301	2
Girls ...	8232	2236	293	3
Totals ...	16862	4335	594	5

1929	Numbers Inspected	Less than four teeth decayed	More than four teeth decayed	Oral Sepsis
Boys ...	9573	2295	334	8
Girls ...	9337	2396	337	9
Totals ...	18910	4691	671	17

(*j*) CRIPPLING DEFECTS.—At the Routine Inspections during the year 1931, 49 Elementary and 12 Secondary School children were found to require treatment; and 117 Elementary, and 23 Secondary School children were required to be kept under observation on account of Organic Heart Disease. There were also 8 Elementary and 3 Secondary School children referred for treatment, and 13 Elementary and 1 Secondary for observation from Special Inspections.

The aforementioned figures vary from those of 1930 as follows:—Routine Inspections, Elementary, decrease of 22 referred and an increase of 41 for observation; Secondary, increase of 5 referred and 18 for observation; Special Inspection, Elementary, a decrease of 3 referred and an increase of 9 for observation; Secondary, an increase of 2 referred and a decrease of 1 for observation.

The number of cases found at the Routine and Special Inspections of children suffering from Crippling Defects caused by Rickets, Spinal Curvature and other forms which are not mentioned above, for the last four years are shown in the following table:—

Defect or Disease	Elementary Schools				Secondary Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		No. of Defects		No. of Defects	
	For Treatment	For Observation	For Treatment	For Observation	For Treatment	For Observation	For Treatment	For Observation
1931 :—								
Deformities :—								
Rickets	51	73	8	6	14	18	—	—
Spinal Curvature	148	96	21	2	69	53	14	—
Other Forms ...	93	173	67	30	68	64	—	4
1930 :—								
Deformities :—								
Rickets	66	86	10	7	—	17	—	—
Spinal Curvature	193	35	40	2	51	32	18	2
Other Forms	1,100	168	73	31	115	100	—	1
1929 :—								
Deformities :—								
Rickets	80	53	47	9	3	14	1	1
Spinal Curvature	252	48	90	7	50	22	30	3
Other Forms ...	169	167	52	25	111	102	—	1
1928 :—								
Deformities :—								
Rickets	66	59	23	11	5	11	2	—
Spinal Curvature	280	84	86	3	72	11	2	3
Other Forms ...	179	150	51	27	91	100	—	4

(*k*) EPILEPSY.—From the Routine Inspections in Elementary Schools, 6 children were referred for treatment and 6 required to be kept under observation who were suffering from Epilepsy. From the Special Inspections, 11 Elementary School Children were referred for treatment, and 8 to be kept under observation ; these figures total 31, which was the same in the year 1930. In addition to these there were 2 Secondary School children found at the Routine Inspections and 1 at the Special Inspections, all requiring to be kept under observation.

6. INFECTIOUS DISEASES.—The exclusion of children suffering from or in contact with persons suffering from infectious disease for prescribed periods has been carefully carried out, and frequent additional visits to the Schools have been made by the Medical Staff on this account.

Notifiable Infectious Diseases are all notified to the Medical Officer of Health by Assistant School Medical Officers and Private Practitioners. All cases notified to the Medical Officer of Health are visited by the

Health Visitors, or Sanitary Inspectors, who give advice to parents and guardians of children respecting the care of the patients and the welfare of those in contact with the disease, and take steps, in cases necessary, for removal of the children to hospital. The Health Visitor also issues a notice excluding the patient and those in contact from attendance at School. During the year 3,324 exclusion notices were issued by the Health Visitors, a decrease of 176 from 1930.

In cases visited by the Sanitary Inspectors on account of Scarlet Fever, Small-Pox, or other fevers, exclusion notices are also issued by the Medical Officer of Health for children suffering or children who may have been in contact with those suffering from the disease. 2,949 notices were issued by the Medical Officer of Health. This figure records an increase of 66 from 1930.

During the year 39 Infants' Schools were granted certificates of exemption in accordance with the Board of Education's Code of Regulations for periods aggregating to 145 weeks, compared with 28 Infants' Schools and 100 weeks during the year 1930.

It was found necessary to close two Infants' Schools for short periods on account of Measles.

The diseases for which certificates of exemption were granted and the number of Schools infected, often with more than one disease, were as follows:—

Disease	No. of Infants' Schools Infected.			
	1931	1930	1929	1928
Measles	22	19	35	6
Chicken-Pox	19	10	27	6
Mumps	5	1	23	1
Whooping Cough	10	18	19	4
Influenza	18	2	31	2
Scarlet Fever	12	3	22	6
Diphtheria	2	3	6	1

7. FOLLOWING UP.—When a child is found in School presenting a physical defect, the parents or guardians are informed by circular and recommended to consult a Medical Practitioner without delay, or take the child to the School Clinic on the following Wednesday or Saturday morning, when arrangements will be made for treatment. At the Medical Inspections of school children a list of defects is also recorded, from which necessary appointments for treatment are made.

This list is afterwards kept for the purpose of following up the cases, keeping cases under observation, and recording the result and date of treatment. The result of the treatment is afterwards entered on the Medical Schedules, and Record Cards at the School Clinic.

Systematic re-inspection and home visitation is undertaken by the Nurses to follow up all cases.

The records taken from the Nurses' weekly duty sheets show a decrease from 1930 of 35 visits to schools, 16,755 more examinations in Schools and a decrease of 312 visits to homes. The result of more frequent examinations has increased the numbers of children found to be suffering from the defects mentioned below by 1,111 over the figures for 1930.

(*a*) RECORD OF VISITS FOR 1931.

(1) Visits to Schools	3107
(2) Children examined	206988
(3) Visits to Homes	2204

(*b*) DEFECTS DISCOVERED.

(1) Malnutrition	95	(7) Sore Eyes	558
(2) Uncleanliness (Head)	6628	(8) Defective Vision ...	166
(3) Uncleanliness (Body)	958	(9) Squint	145
(4) Ringworm	34	(10) Running Ears ...	502
(5) Scabies	32	(11) Infectious Diseases ...	12
(6) Impetigo	1071	(12) Other Conditions ...	5397

8. MEDICAL TREATMENT.—There are now four School Clinics in Bradford, a Central Clinic at 28a, Manor Row, and Branch Clinics at Green Lane, Lapage Street, and 20, Edmund Street. Under the co-ordination of medical work, arrangements have been made for the treatment of certain defects at places mentioned below :—

(*a*) Minor Ailments ...	School Clinics.
(*b*) Tonsils and Adenoids	Special Hospital, Leeds Road.
(*c*) Tuberculosis	Anti-Tuberculosis Centre and Grassington Sanatorium.
(*d*) Skin Disease	School Clinics.
(*e*) External Eye Disease	School Clinics, Ophthalmic Clinic, Edmund Street and Municipal General Hospital (St. Luke's).
(*f*) Vision	School Clinics, Ophthalmic Clinic, Edmund Street and Municipal General Hospital (St. Luke's).
(*g*) Ear Disease and Hearing	School Clinics and Special Hospital (Leeds Road).

(*h*) Dental Defects ... Central Clinic.

(*i*) Crippling Defects and Orthopædics ... Central School Clinic, School for Physically Defectives, Lister Lane and Municipal General Hospital (St. Luke's).

(*j*) Marasmus, Rickets, Anæmia, and Skin Diseases ... ... Central School Clinic. U.V. and X-Rays.

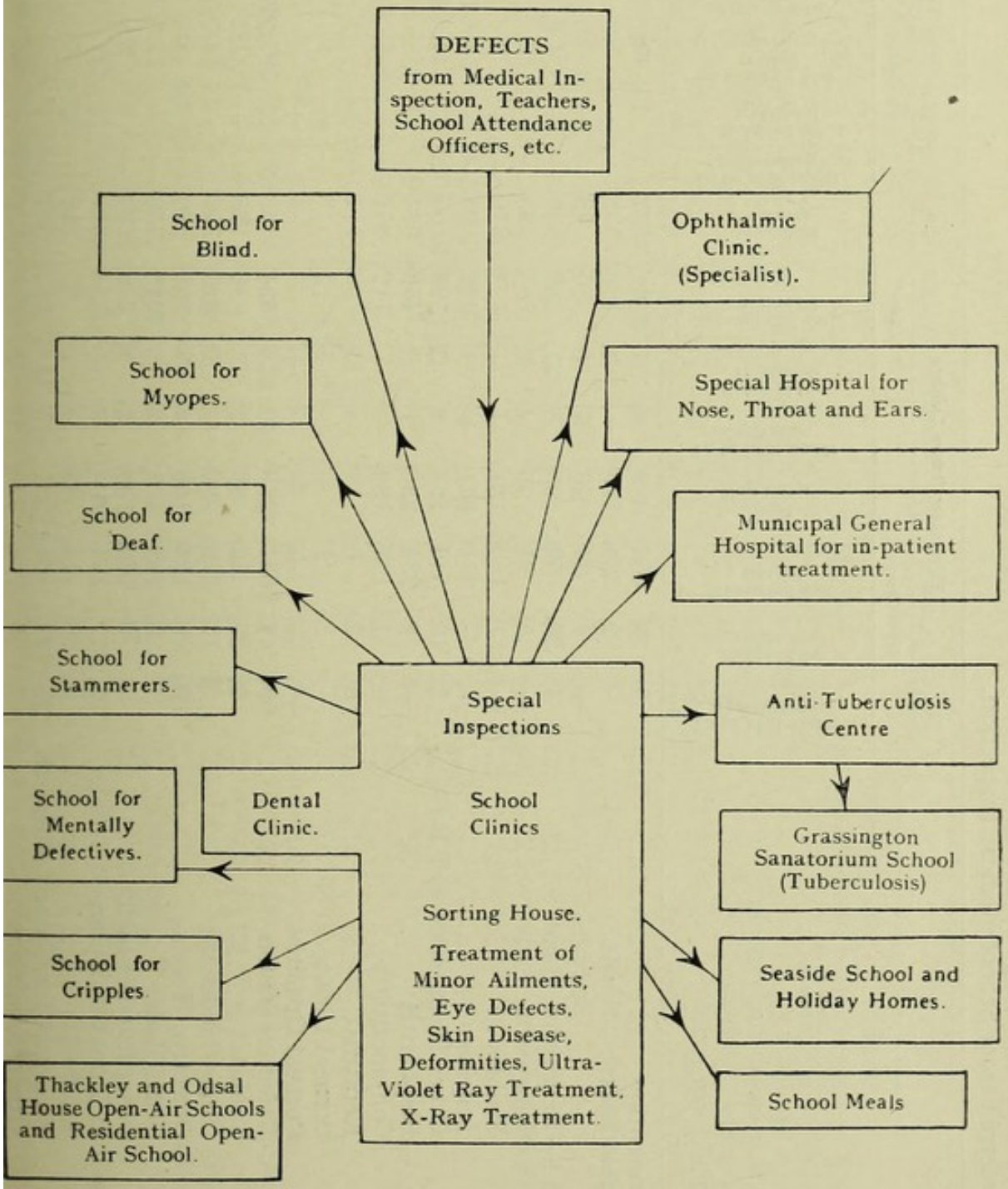
The cases of defects that have attended the School Clinics since 1908 are shewn in the following table :—

Year	Treated	Examined only on first attendance	Total Attendances	Attendances per week
1908	841	590	4050	122
1909	2323	1325	14516	329
1910	3520	2772	19315	439
1911	5019	2655	20325	462
1912	6279	3095	25579	581
1913	8004	4333	34940	791
1914	13991	4155	46982	1068
1915	12469	2769	43346	985
1916	14559	3552	38051	865
1917	12890	3056	44289	1006
1918	9954	3164	35256	801
1919	16459	4177	44876	1019
1920	22114	5894	61565	1502
1921	25460	6364	75209	1791
1922	23718	4158	71663	1706
1923	20255	4811	71646	1706
1924	23013	6176	76476	1821
*1925	37850	7327	88111	2050
*1926	35007	9352	91477	2178
*1927	34180	8279	99449	2368
*1928	33031	9517	94080	2240
*1929	37613	9937	110333	2627
*1930	31961	7431	123514	2941
*1931	30509	8697	118793	2829

* Includes Dental Cases which were not included in first two columns in previous years. This of course duplicates many of the cases as children often come for both Medical and Dental treatment during the same year.

DIAGRAM ILLUSTRATING HOW THE VARIOUS DEFECTS ARE REFERRED AND TREATED UNDER THIS AUTHORITY'S SCHEME.

MEDICAL INSPECTION IN SCHOOLS.



The following table records the attendances at the School Clinics during 1931 and includes cases referred from School Medical Inspection.

Defects or Diseases	Elementary School Children								Secondary School Children							
	New Cases				Old Cases				New Cases				Old Cases			
	To be kept under observation	Referred for treatment	Examined and treated	Total Attendances New Cases	To be kept under observation	Referred for treatment	Examined and treated	Total Attendances All Cases	To be kept under observation	Referred for treatment	Examined and treated	Total Attendances New Cases	To be kept under observation	Referred for treatment	Examined and treated	Total Attendances All Cases
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Malnutrition	9	70	604	683	6	31	2471	3191	1	1	49	51	—	1	99	151
Uncleanliness :—Head	—	2	224	226	—	1	126	353	—	—	5	5	—	—	4	9
Body	—	1	24	25	7	6	40	78	—	—	—	—	—	—	—	—
Skin :—Ringworm, Head	4	22	57	83	6	27	382	498	—	—	4	4	2	2	14	22
Ringworm, Body	—	5	91	96	—	2	287	385	—	—	2	2	—	—	3	5
Scabies	—	1	180	181	—	—	795	976	—	—	3	3	—	—	11	14
Impetigo	—	—	971	971	—	1	5922	6894	—	—	54	54	—	—	295	349
Other Diseases (Non T.B.) ...	2	19	543	564	1	3	1595	2163	2	3	44	49	—	4	210	263
Eye :—Blepharitis	—	2	234	236	1	1	456	694	—	1	8	9	—	—	16	25
Conjunctivitis	—	1	138	139	—	—	712	851	—	—	8	8	—	—	24	32
Keratitis	3	2	6	11	—	1	99	111	—	—	—	—	—	—	—	—
Corneal Ulcers	—	2	1	3	—	1	2	6	—	—	1	1	—	—	1	2
Corneal Opacities	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective Vision	93	541	2634	3268	140	626	5624	9658	10	72	587	669	22	39	869	1599
Squint	6	38	52	96	5	11	46	158	—	—	1	1	—	1	—	2
Other Conditions	3	13	276	292	—	5	429	726	1	—	14	15	—	2	40	57
Ear :—Defective Hearing	20	6	124	150	4	7	209	370	—	1	8	9	—	—	22	31
Otitis Media	1	5	492	498	2	10	7249	7759	—	—	17	17	—	—	273	290
Other Ear Diseases	2	6	160	168	2	1	319	490	—	1	8	9	—	—	15	24
Nose and Throat :—Enlarged Tonsils	13	117	174	304	8	51	954	1317	1	3	21	25	1	3	277	306
Adenoids	5	25	15	45	1	5	97	148	—	2	1	3	—	1	15	19
Enlarged Tonsils and Adenoids	25	191	65	281	13	124	165	583	—	7	—	7	—	—	5	12
Other Conditions	2	39	714	755	8	39	6100	6902	21	2	88	111	22	2	208	343
Breathing Exercises	—	2	392	394	—	—	1195	1589	—	—	26	26	—	—	73	99
Enlarged Cervical Glands (Non T.B.)...	3	40	397	440	2	24	721	1187	1	—	24	25	—	2	92	119

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Defective Speech	9	4	3	16	2	1	—	19	1	—	—	1	—	—	—	1
Heart and Circulation :—																
Heart Disease :—Organic... ...	13	5	10	28	9	4	10	51	1	2	1	4	—	—	—	4
Functional ...	38	17	15	70	29	7	27	133	5	—	2	7	4	1	8	20
Anæmia	56	242	814	1112	56	89	6069	7326	4	10	52	66	—	4	419	489
Lungs :—Bronchitis	8	83	570	661	42	37	1213	1953	—	1	9	10	—	—	4	14
Other Non-T.B. Diseases ...	7	90	830	927	29	28	1580	2564	—	1	12	13	—	—	50	63
Tuberculosis :—Pulmonary Definite ...	—	2	2	4	4	4	—	12	—	—	—	—	—	—	—	—
Pulmonary Suspected	2	26	18	46	15	31	31	123	—	—	—	—	—	—	—	—
Non-Pulmonary :																
Glands	—	3	3	6	—	1	4	11	—	—	1	1	—	—	18	19
Spine	—	1	2	3	—	—	—	3	—	—	—	—	—	—	—	—
Hip	2	—	3	5	—	—	—	5	—	—	—	—	—	—	—	—
Other Bones and Joints	3	1	4	8	1	1	—	10	—	—	—	—	—	—	—	—
Skin	—	1	2	3	—	—	24	27	—	—	—	—	—	—	—	—
Other Forms	4	7	3	14	—	—	5	19	—	—	—	—	—	—	—	—
Nervous System:—Epilepsy	8	8	7	23	5	10	8	46	1	—	—	1	—	—	—	1
Chorea	29	29	108	166	33	20	283	502	1	1	6	8	3	2	70	83
Other Conditions...	10	32	150	192	10	24	463	689	1	3	10	14	1	—	23	38
Deformities :—Rickets...	6	11	29	46	—	2	473	521	—	1	3	4	—	1	5	10
Spinal Curvature ...	3	21	110	134	2	1	1560	1697	—	6	21	27	1	—	352	380
Other Forms	32	53	88	173	10	15	1255	1453	4	11	14	29	—	4	122	155
Mental Condition	86	11	11	108	28	8	11	155	—	—	—	—	—	—	—	—
Infectious Diseases	23	28	73	124	5	1	13	143	—	—	—	—	—	—	1	1
Other Defects and Diseases	135	661	1906	2702	479	234	3616	7031	17	49	98	164	8	13	205	390
Minor Ailments	3	19	5554	5576	—	17	20126	25719	—	6	286	292	2	2	865	1161
No Defect Found	579	—	—	579	—	—	—	579	94	—	—	94	—	—	—	94
Teeth :—Cases treated by appointment	—	—	5264	5264	—	—	1016	6280	—	—	347	347	—	—	313	660
Emergency Cases (Casuals) ...	—	—	4068	4068	—	—	822	4890	—	—	459	459	—	—	142	601
Totals	1247	2505	28215	31967	965	1512	74604	109048	166	184	2294	2644	66	84	5163	7957

In addition to the attendances recorded in the preceding table, the following Medical Inspections were conducted at the School Clinics :

	Elem.	*Secy.*
(1) Children examined as to their suitability for admission to Secondary Schools	1489	—
(2) Re Bursarships	—	199
(3) From School of Art (Routine Medical Inspection)	—	112

The following table shows the examinations made in connection with Special Schools, transference to Convalescent Homes, employment of children and continued attendance at Secondary Schools. These have been analysed under the defects found or no defect found and are all included in the previous table.

Object of Examination	Number of Children	Total Attendances
Transference to Special Schools :—		
Mentally Defective	72	79
Blind, Deaf and Cripple	124	124
Stammerers' Class	1	1
Thackley and Odsal House Open-Air Schools ...	1008	1017
Transference to Convalescent Homes	643	699
Transference to Institutions	11	12
Continued attendance at Infants', Secondary and Special Schools :—		
Stammerers' Class	7	7
Infants' Schools	4	4
Secondary Schools	24	25
Myope School	44	44
Open-Air Schools (Thackley and Odsal House) ...	59	66
Lister Lane School for Physically Defectives ...	24	24
Margaret McMillan School for Mentally Defectives...	7	7
Bolton Royd Deaf School	8	8
Nursery Schools	5	5
Employment at Theatres...	79	79
Street Trading Licences	15	15
Totals	2180	2261

Of the 643 children examined *re* transference to Convalescent Homes:—

473 were for Craig Home, Morecambe.

109 for the Charity Organisation Society.

61 for the Bradford Victoria Children's Convalescent Fund.

EXCLUSIONS FROM SCHOOL.

During the year 15,181 exclusion notices have been issued from the following centres, compared with 16,257 in 1930, 15,025 in 1929, 13,501 in 1928, and 10,642 in 1927.

	1931	1930	1929	1928
Central School Clinic	2483	3082	3031	3029
Green Lane School Clinic	1340	1324	998	2243
Lapage Street School Clinic	2632	2894	3158	2339
Edmund Street School Clinic	1391	1364	926	—
Health Visitors, Edmund Street ...	3324	3500	4656	865
Special Hospital, Leeds Road	741	846	853	503
Anti-Tuberculosis Centre	296	322	142	152
Lister Lane School for Physically Defectives	25	42	49	35
Health Department	2949	2883	1212	4335
Totals	15181	16257	15025	13501

MEDICAL GYMNASTICS AND MASSAGE.

This treatment is carried out at the Central School Clinic and Lister Lane School for Physically Defectives.

The following tables give the number referred and the number treated at the Central School Clinic:—

Cases treated and discharged cured	469
Cases treated and discharged improved	35
Cases treated and referred to Lister Lane School for Physically Defectives for completion	9
Cases treated who left School (over age) before treatment was completed	6
Cases withdrawn from treatment by parents before completion	13
Cases treated and carried forward to 1932 for continued treatment	47
Total number of cases referred	579

	Boys	*Girls*	*Total*
Total number of attendances	2405	3090	5495

Classification of the 579 cases treated :—

Disease	Number	Disease	Number
Scoliosis	56	Paralysis	21
Kyphosis	92	Recent Injuries	49
Chest Deformities ...	10	Post Tonsillectomy Cases ...	297
Foot Deformities ...	54		

TINEA (RINGWORM) OF THE HEAD AND X-RAY TREATMENT.

X-Ray treatment for Ringworm of the Head still continues with the successful results that have been experienced ever since the apparatus was installed in the year 1910. In that year the figure recorded was 623 children treated at the School Clinic, and it was known that there were a good many more who had been under treatment by private practitioner or at home, who had not been to the Clinic. The figures for 1931 are 83 children treated compared with 101 in 1930, 127 in 1929, 108 in 1928 and 165 in 1927.

Of the 79 Elementary and 4 Secondary School children reported in Table IV, Group 1, 41 received X-Ray treatment, and the average length of time from commencement of treatment until re-admission to school was 20·83 days, compared with 22·03 in 1930, 21·7 in 1929 and 20·9 in 1928.

All the children were re-inspected about six months after treatment, and full re-growth of the hair had occurred in all cases.

PROVISION OF SPECTACLES.

It will be noticed from Table IV, Group 2, that most of the spectacles were provided by this Authority.

A contract is made by the Education Committee with a local Optician for the supply of spectacles at a reduced rate.

It will also be seen from Table IV, Group 2, that during the year 2302 Elementary and 480 Secondary School children were supplied with spectacles by this Authority, against 2337 Elementary and 393 Secondary in 1930 and 2,265 Elementary and 324 Secondary in 1929.

Of the 2,782 supplied, in 2015 cases parents paid the full cost to the Authority, 128 pairs were for children at the Myope School, where Spectacles are provided, free of charge, as part of the treatment, and in 516 cases the cost of the spectacles was remitted by the Committee after a full enquiry into the family circumstances had been made, while in 4 cases the Committee remitted part of the cost. In 119 cases the accounts were carried forward to the year 1932.

In addition to these 346 pairs of spectacles were repaired, or in some cases second pairs of spectacles were provided for the Myope School children, and 1451 repairs or second pairs for children attending ordinary Elementary and Secondary Schools: of these 1181 were paid for by the parents, 208 in which the cost was remitted by the Committee, and 62 cases were carried forward. These make a total of 4,579 pairs of spectacles supplied during the year, against 3,868 supplied in the year 1930.

ULTRA VIOLET RAYS TREATMENT.

Ultra Violet Rays treatment is given at the Central School Clinic. During the year 1931, 698 children received this treatment; 449 cases were completed, 123 cases were treated but for various reasons failed to complete the course, and 126 cases were carried forward to 1932. Of the 449 cases completed, 232 received other forms of treatment, and 217 cases received sunlight treatment only. A few cases were admitted to Open-Air Schools, and were discharged in consequence before treatment was completed, and are not included in these figures.

A short dose is given at the first attendance, and this is increased gradually to a maximum of five minutes.

The following tables give particulars of treatment and the results.

CASES TREATED BY ARTIFICIAL SUNLIGHT ALONE.

Defect	Number of Children	Average number of weeks	Minimum number of weeks	Maximum number of weeks	Average number of doses	Number of exposures (Minutes)					Signs of improvement noted by the Medical Officer					Result of treatment				
						1	2	3	4	5	Temperament	Energy	Sleep	Nutrition	Haemoglobin	Condition Cleared	Condition improved: Much	Condition improved: Slight	No change	Treatment discontinued owing to unsuitability
Anæmia	48	11·1	6·0	14·0	22·2	48	65	74	81	798	24	26	25	38	48	2	34	12	—	—
Anæmia and Malnutrition ...	69	11·2	6·5	14·0	22·4	72	108	112	136	1112	44	51	36	68	69	1	50	16	2	—
Anæmia and Alopecia... ...	8	10·9	8·0	14·0	21·8	8	8	11	15	132	4	3	1	7	8	—	5	2	1	—
Anæmia and Bronchial Catarrh	11	10·9	6·5	13·5	21·8	12	22	22	21	162	6	9	6	10	11	1	5	5	—	—
Anæmia and Chorea	4	11·1	9·0	13·0	22·2	4	7	7	8	63	2	2	2	3	4	2	1	1	—	—
Anæmia and Dermatitis ...	1	12·0	—	—	24·0	1	1	1	2	19	—	—	1	1	1	—	1	—	—	—
Anæmia and Enlarged Glands (non-T.B.)	4	11·5	10·0	12·0	23·0	4	5	6	6	71	2	—	1	4	4	—	3	1	—	—
Anæmia and Otorrhœa ...	5	10·8	8·5	13·0	21·6	5	5	7	13	78	1	2	2	3	5	—	3	2	—	—
Anæmia and Psoriasis	2	13·0	12·5	13·5	26·0	2	3	3	5	39	2	2	2	2	2	—	2	—	—	—
Anæmia and Asthma	2	10·25	10·0	10·5	20·5	2	2	2	2	33	2	2	2	2	2	—	1	1	—	—
Anæmia and Rheumatism ...	1	12·0	—	—	24·0	1	2	2	2	17	1	1	—	1	1	—	—	—	1	—
Malnutrition	8	11·3	8·5	14·0	22·6	8	11	10	11	141	5	4	6	8	8	—	4	4	—	—
Malnutrition and Rickets ...	8	11·9	10·0	13·5	23·8	8	12	12	13	146	3	3	4	8	8	—	5	2	1	—
Malnutrition and Eczema ...	1	16·5	—	—	33·0	1	1	2	2	27	1	1	1	1	1	—	—	1	—	—
Bronchitis	6	11·6	8·5	14·5	23·2	6	8	10	12	106	3	4	2	4	6	1	3	2	—	—
Bronchitis and Asthma ...	1	13·0	—	—	26·0	1	1	3	2	19	1	1	1	1	1	—	1	—	—	—
Bronchial Catarrh	2	13·0	12·0	14·0	26·0	2	2	2	3	43	2	2	1	2	2	—	1	1	—	—
Rheumatism	9	11·5	7·0	13·0	23·0	9	12	12	18	156	5	4	8	7	9	4	4	1	—	—
Debility	8	11·4	6·5	12·5	22·8	8	9	10	12	143	5	5	6	6	8	3	4	1	—	—
Acne	3	11·0	10·0	12·5	22·0	3	3	4	7	49	2	2	1	2	3	—	3	—	—	—
Eczema	3	11·8	5·5	18·0	23·6	2	3	4	3	59	1	1	1	1	2	—	—	—	2	1
Psoriasis	2	9·25	6·5	12·0	18·5	2	4	5	5	21	1	—	1	1	2	—	1	—	1	—
Chorea	3	11·5	10·0	12·5	23·0	3	5	5	8	48	3	2	3	2	3	2	—	1	—	—
Other Cond. Nervous System ...	4	10·9	7·5	13·5	21·8	4	8	8	10	57	3	2	3	3	4	—	1	3	—	—
Otorrhœa	2	9·25	6·0	12·5	18·5	2	3	2	4	26	—	—	—	—	2	—	1	—	1	—
Atrophic Rhinitis	1	7·0	—	—	14·0	2	1	1	1	9	1	1	1	1	1	—	1	—	—	—
Nasal Catarrh	1	13·5	—	—	27·0	1	1	1	1	23	—	—	—	1	1	—	—	1	—	—

CASES TREATED BY ARTIFICIAL SUNLIGHT AND OTHER TREATMENT DURING THE SAME PERIOD.

Defect	Number of Children	Average number of weeks	Minimum number of weeks	Maximum number of weeks	Average number of doses	Number of exposures (Minutes)					Signs of improvement noted by Medical Officer					Result of treatment				
						1	2	3	4	5	Tempera-ment	Energy	Sleep	Nutrition	Haemo-globin	Condition cleared	Condition improved: Much	Condition improved: Slight	No change	Treatment discontinued owing to unsuitability
Anæmia	53	11·5	7·0	14·5	23·0	56	72	77	101	913	31	33	25	37	53	5	33	15	—	—
Anæmia and Malnutrition ..	73	10·9	7·0	13·5	21·8	74	108	120	145	1150	39	29	25	72	73	2	49	19	3	—
Anæmia and Asthma	1	10·0	—	—	20·0	1	1	1	2	15	1	1	1	1	1	—	1	—	—	—
Anæmia and Bronchitis ..	7	11·7	10·0	12·5	23·4	7	9	10	11	127	4	3	5	5	7	2	5	—	—	—
Anæmia and Bronchial Catarrh	17	11·6	9·0	15·0	23·2	17	22	22	31	302	9	8	7	15	16	4	12	1	—	—
Anæmia and Enlarged Glands..	5	11·9	11·0	13·0	23·8	5	8	8	9	89	3	2	1	5	5	1	3	1	—	—
Anæmia and Chorea	1	12·0	—	—	24·0	1	1	1	1	20	1	1	—	—	1	—	1	—	—	—
Anæmia and Rheumatism ..	8	10·7	7·0	12·5	21·4	9	16	14	20	112	5	3	3	7	7	1	4	2	1	—
Anæmia and Alopecia	3	12·2	11·5	13·0	24·4	3	4	4	5	57	1	1	2	3	3	1	2	—	—	—
Anæmia and Eczema	1	9·0	—	—	18·0	1	1	2	2	12	1	1	—	1	1	—	—	—	1	—
Malnutrition	15	11·3	7·0	13·5	22·6	15	20	22	25	257	7	5	5	14	15	2	9	4	—	—
Malnutrition and Rickets ..	10	10·6	8·0	14·0	21·2	12	18	20	22	139	5	7	4	10	10	—	4	6	—	—
Malnutrition and Seborrhoea ..	1	11·0	—	—	22·0	1	1	1	1	18	—	—	—	1	1	—	—	1	—	—
Debility	8	11·1	9·0	12·0	22·2	8	8	11	17	133	6	4	7	6	8	4	2	2	—	—
Alopecia	4	15·5	12·0	24·5	31·0	4	6	7	8	99	3	2	2	3	4	1	3	—	—	—
Bronchial Catarrh	5	9·0	6·5	11·5	18·0	5	8	7	12	58	4	5	5	5	5	—	3	2	—	—
Chorea	3	11·8	11·0	12·5	23·6	3	3	3	5	57	3	3	2	2	3	—	2	1	—	—
Otorrhœa	2	13·3	12·5	14·0	26·6	2	5	3	4	39	2	1	2	2	2	1	1	—	—	—
Sinus of Groin	1	10·5	—	—	21·0	1	1	1	1	17	—	—	—	1	1	—	1	—	—	—
Rheumatism	4	12·5	11·0	14·0	25·0	4	6	7	8	75	4	3	3	4	4	3	1	—	—	—
Enlarged Glands (Non T.B.) ..	1	7·0	—	—	14·0	1	1	1	2	9	—	—	—	—	—	—	—	—	—	1
Tachycardia	1	12·0	—	—	24·0	1	1	1	1	20	1	1	1	1	1	—	—	1	—	—
Rickets	2	11·3	10·0	12·5	22·6	2	2	3	3	35	2	2	1	2	1	—	2	—	—	—
Nasal Catarrh	2	10·0	6·5	13·5	20·0	2	2	2	3	31	1	1	1	1	2	—	—	2	—	—
Bronchitis	2	12·3	12·0	12·5	24·6	2	2	3	2	40	1	1	1	1	2	—	2	—	—	—
Bronchitis and Otorrhœa ..	1	7·0	—	—	14·0	1	1	3	3	6	1	1	1	1	1	1	—	—	—	—
Psoriasis	1	12·5	—	—	25·0	1	1	1	2	20	1	1	1	1	1	—	—	—	1	—

CASES WHO RECEIVED ARTIFICIAL SUNLIGHT TREATMENT BUT FAILED TO COMPLETE COURSE.

Defect	Number of children	Minimum number of weeks	Maximum number of weeks	Average number of weeks	Duration of exposures (Minutes)					Reason for discontinuance of treatment							
					1	2	3	4	5	Admitted O.A.S.	Attending Own Doctor	Financial inability	Left district	Illness	No one to bring patient	Decline further treatment	Left school
Anæmia	34	0·5	9·5	4·4	36	37	35	32	154	8	—	3	2	3	4	14	—
Anæmia and Malnutrition ...	41	0·5	9·0	4·2	43	54	48	42	160	5	—	4	2	1	8	21	—
Anæmia and Bronchitis ...	5	0·5	5·5	3·1	6	4	4	3	14	1	1	—	1	—	1	1	—
Anæmia and Bronchial Catarrh	9	1·0	9·0	4·0	10	13	12	9	29	—	—	—	2	—	4	3	—
Anæmia and Rickets	2	3·0	4·5	3·75	3	3	3	2	4	—	—	—	—	—	—	2	—
Anæmia and Acne	1	—	—	9·0	1	1	1	2	13	—	—	—	—	—	1	—	—
Anæmia and Eczema	1	—	—	5·5	2	2	2	4	1	—	—	—	—	—	—	1	—
Anæmia and Urticaria	1	—	—	0·5	1	—	—	—	—	—	—	—	—	—	1	—	—
Malnutrition	6	1·5	5·0	3·3	7	7	7	4	15	—	—	1	—	—	3	2	—
Malnutrition and Enlarged Glands	3	0·5	2·0	1·5	3	2	2	2	—	—	—	1	—	—	2	—	—
Debility	6	1·0	7·5	3·9	6	8	6	6	21	—	1	—	1	1	—	3	—
Bronchitis	2	0·5	3·5	2·0	2	1	1	1	3	1	—	1	—	—	—	—	—
Rickets	2	1·0	6·0	3·5	3	3	3	1	4	—	—	—	—	—	—	2	—
Rheumatism	4	2·0	6·0	4·4	4	5	5	5	16	—	—	1	—	—	—	1	2
Other Con. Nervous System ...	2	2·0	5·0	3·5	2	3	2	2	5	—	—	—	—	—	1	1	—
Nasal Catarrh	1	—	—	0·5	1	—	—	—	—	—	—	—	—	—	1	—	—
Acne	1	—	—	7·5	1	1	1	1	11	—	—	—	1	—	—	—	—
Alopecia	1	—	—	1·5	1	1	1	—	—	—	—	—	—	—	—	1	—
Dermatitis	1	—	—	7·5	1	2	2	1	9	—	1	—	—	—	—	—	—

DENTAL REPORT.

By H. V. Morrell, L.D.S., R.F.P.S. (Glasgow).

The objects of the scheme for dental inspection and treatment is to ensure to every child on leaving school a sound and healthy mouth and to give all the children a genuine appreciation of the value to their health of the preservation of their teeth.

There are at present three dental surgeons engaged in the School Dental Service. The inspection and treatment of defective teeth was carried on much as in previous years. Dental Inspections were conducted in the Schools by the aid of the probe and mirror. Approximately 175 children being examined in a session. This method of inspection enables a large number of children to be dealt with and consequently disorganisation of school work is reduced to a minimum, a fact very much appreciated by the Head Teachers.

An appropriately worded form is given to each child found to require treatment, a space for the parental consent is left at the bottom of these forms, and those that are signed are collected by the teacher and forwarded to the Clinic Offices, where appointments are made as quickly as possible. The total number of children inspected in the Elementary Schools of the City by the Dental Surgeons was 21,609, and of these, 17,611 were found to require treatment, whilst the number actually treated at the Clinic was 10,138 and as a result of following up in the schools, 1,212 promised to obtain treatment from private sources when the defects were pointed out to them and 1,385 children were unable to keep their appointments after agreeing to accept treatment, owing to unforeseen circumstances.

A brief summary of the work shows: 5,811 permanent fillings, 4,248 permanent teeth extracted which were totally unsaveable, 15,651 temporary teeth extracted, making a total of 19,899 extractions; in addition 575 dressings were completed, giving a grand total of 26,285 operations during the year.

An anæsthetic is always given for the extraction of teeth, either a local or general according to the severity of the operation, as the infliction of pain is the chief deterrent of further treatment. It is interesting to note that 2,731 children were treated with general anæsthetics (Nitrous Oxide) during 1931, and the attendance has been extremely satisfactory.

The School Dental Service has again continued to fulfil a great need among the children of the City, and is each year becoming better appreciated, as evidenced by the fact that the children are now brought voluntarily to the Clinic in larger numbers than ever, and in many cases are being referred by private practitioners, so that any slackening of effort at this stage would be unfortunate.

SPECIAL OPHTHALMIC CASES.

By W. Oliver Lodge, M.D., F.R.C.S.

Cases are referred by the School Medical Officers to the Ophthalmic Surgeon at the Ophthalmic Clinic, Edmund Street, each Thursday at 2 p.m. Cases requiring operations or hospital treatment are dealt with at St. Luke's Hospital. The consulting Surgeon also visits, as required, the Myope School.

	Children	*Attendances*
1. Total cases from all sources seen at Special Ophthalmic Clinic	250	380
2. Total cases referred from School Clinics seen at Special Ophthalmic Clinic	164	265
(*a*) Defective Vision and Squint	148	246
(*b*) External Eye Diseases	16	19
3. Total cases referred from the Myope School seen at Special Ophthalmic Clinic	4	4
(*a*) Defective Vision and Squint	4	4
(*b*) External Eye Diseases	—	—
4. Total cases under 5 years (from Nursery Schools, etc.) seen at Special Ophthalmic Clinic ...	82	111
(*a*) Defective Vision and Squint	64	89
(*b*) External Eye Diseases	18	22
5. In-patients (St. Luke's Hospital) admitted from Special Ophthalmic Clinic	54	

Operations for :—

(*a*) Strabismus	42
(*b*) Diseases of the eyelids and lachrymal passages	6
(*c*) Diseases of the cornea	2
(*d*) Cataract	4

ORTHOPÆDIC CASES.

By Mr. F. W. Goyder, M.B., F.R.C.S., Consulting Orthopædic Surgeon.

Lister Lane School.—The Orthopædic Surgeon has made 397 examinations of children at this school, 25 being new cases and 372 previously examined.

Twenty-seven orthopædic cases were sent to St. Luke's Hospital: 7 for X-ray examination only, 2 for non-operative treatment, and 18, as against 11 last year, for operative procedures. The operations performed were as follows:—

For deformity due to Rickets		2
For deformity due to Infantile Paralysis—		
Tenotomy	1	
Stabilisation	2	
	–	3
For deformity due to Spastic Paralysis		4
For Bone and Joint Conditions—		
Non-tuberculous		1
Tuberculous		0
For Congenital Talipes		6
For miscellaneous conditions		3
For enlarged tonsils and adenoids		3
Total ...		22

Two children had tonsil operations in addition to other procedures and two had more than one operation for Talipes.

The two children with Infantile Paralysis marked as "stabilisation" had this operation as the final stage of their treatment at Lister Lane School. This is an operation for which a minimum of twelve years is required, and several preliminary years of treatment are needed. In both cases it has resulted in permanent discarding of splints, which previously had been essential.

St. Luke's Hospital—Out-Patient Clinic.

Cases have been seen at the Out-Patient Clinic held on Saturday mornings as follows:—

New patients referred by School Clinics	33
New patients referred by the Young Child Clinics	24
New patients referred from elsewhere	10
New patients referred from Wards of St. Luke's...	25
	92
Old patients	186
Total ...	278

Orthopædic In-Patients.

In spite of the diminution in cases the operative work has increased, major operations from 73 to 84 and manipulative procedures from 19 to 56; a total increase of 48.

The Ward work has been hampered by two outbreaks of infectious disease, which resulted in complete closure of the Orthopædic Ward.

The 84 major operations referred to above have been performed upon 78 children, three of whom have had tonsils and adenoids removed in addition to other operations. Several children required more than one operation for the cure of their disability.

The following table shows the conditions for which operations were performed:—

Deformities due to Rickets			18
Congenital deformities—			
Talipes	8		
Hip dislocation	5		
Harelip	4		
	–		17
Acquired deformities—			
Torticollis	5		
Others	8		
	–		13
Paralytic deformities—			
Infantile	9		
Spastic single	2		
Spastic double	2		
	–		13
Tuberculous conditions			8
Bone disease not tuberculous			4
Miscellaneous conditions			5
Total ...			78

The increased number both of operations and manipulations are accounted for mainly by an increase in the number of congenital deformities dealt with during the year.

9.—OPEN-AIR EDUCATION.—

(*a*) *Playground Classes.*—The only classes which are regularly held in playgrounds are those for physical training, but in favourable weather other classes are frequently held in the playgrounds.

(*b*) *School Journeys.*—During the Spring and Summer months children are taken for journeys to the outskirts of the city and given instruction in nature study, botany, etc. Classes are also taken into the Parks and Recreation Grounds for one lesson per week, excepting when the weather is unfavourable.

(*c*) *School Camps.*—Camp Schools were not re-opened in 1931.

During the summer holidays, three schools, situated in healthy outskirts of the city, were kept open under camp school arrangements, to which children from the poorer districts were invited to attend for

organised games, etc. The children were given tram tokens to enable them to travel to and from these schools free. They were also supplied with dinners free of cost. There was no registration.

(*d*) *Open-air Classrooms in Public Elementary Schools.*—Excepting Special and Nursery Schools there are only two Schools in Bradford with Open-air Classrooms ; both being Infants' Departments.

(*e*) *Day Open-air Schools.*—During the year 1931 the provision of Open-air Schools consisted of one at Thackley for 275 children and Odsal House for 200 children.

The children are selected for Open-air Treatment because of their debilitated condition, by either (*a*) School Medical Officers or School Nurses when inspecting Schools ; or (*b*) School Medical Officers at the School Clinics ; or (*c*) Doctors, Head Teachers, and School Attendance Officers, the final decision in all cases resting with the Chief Assistant School Medical Officer.

Special attention in this matter is given to all children who are attending School irregularly on account of ill-health, or are on the School meals list.

Very urgent cases are admitted a few days after medical examination, others are placed on a waiting list and are admitted in turn as early as circumstances permit. There are four School Terms in the year, ending at Easter, Midsummer Holidays, end of October and Christmas. All children undergo periodical medical examination whilst in attendance at the Open-air School and only at the end of the School Terms are suitable children selected for discharge.

The children and teachers assemble each morning in the centre of the City. Those who live some distance are supplied with checks for travelling in the tram car. The cars which convey the parties to school leave the City at 8-30 a.m. Odsal House School is on the car route, and Thackley School is only a few minutes' walk from the car. This enables the children to arrive there about 9 a.m.

Medical Supervision.—The children are under the direct supervision of the School Doctor, who visits the school at least once a week. During his visit he makes an inspection of all the scholars. Each child is weighed once a week. The School Nurse also visits the school one or two half-days per week.

All the schools are open all the year round, excepting a short period at Easter and Christmas.

(1) *Thackley Open-Air School.*—Full particulars of this school, which has been in existence since 1908, have been given in previous reports. The accommodation is 275.

The children who attend this school are of all ages from 6 to 14, and are those which live on the North, North-east and North-west sides of the City. The dietary is as follows:—

THACKLEY OPEN AIR SCHOOL—DIETARY.

BREAKFAST:—Porridge with milk and treacle; bread and margarine (or dripping) and cocoa.

DINNER:—

Monday: Soup (vegetable)
Baked jam roll (with custard or white sauce).

Tuesday: Joint and 2 vegetables
Milk pudding.

Wednesday: Stew (meat and vegetables)
Milk pudding.

Thursday: Pie (meat and potato)
Milk pudding.

Friday: Fish (boiled with milk) and potatoes. Thickened with flour, and parsley added
Baked currant or Ginger pudding. Custard.

The Dinner Menu is varied according to seasonable products of the School Garden. Rhubarb (with custard) and rhubarb pies are frequently served as second course, whilst plentiful use is also made of broad beans, peas, lettuce, celery, etc.

TEA:—At the end of the afternoon, before departure for home, each child gets a mug of warmed milk.

This school continues to be conducted along the lines indicated in previous reports. A record is kept of all clinical facts relating to each child, and the height, weight, lung capacity, hæmoglobin content, etc., are also noted.

The following table gives the average increases in height, weight, etc., of the children discharged during the twelve years, 1920-1931 :—

Year	Number of children discharged	Increase in weight (kilos.)	Increase in height (cents)	Increase in hæmoglobin	Increase in chest measurement (ins.)	Average stay in months
1920	177	2·58	5·29	11·33%	0·94	10·5
1921	258	2·20	3·27	9·34%	0·61	7·3
1922	297	2·28	4·78	12·88%	0·37	8·4
1923	257	2·43	4·06	8·04%	1·11	8·7
1924	329	2·48	3·43	14·15%	0·59	7·3
1925	410	2·64	3·46	12·99%	1·02	7·5
1926	415	3·28	3·46	12·43%	1·50	8·4
1927	381	2·81	4·55	10·82%	1·00	9·2
1928	362	2·89	4·36	12·65%	1·20	8·8
1929	414	2·56	3·93	12·77%	0·85	8·7
1930	418	2·52	3.92	14·05%	0·55	9·1
1931	410	2·25	3·28	11·41%	0·32	7·9

The numbers of children in attendance at the Thackley Open-air School during the year 1931 were as follows :—

	Boys	*Girls*
Number on register 1st January, 1931 ...	141	175
Number admitted during 1931	216	217
Number discharged during 1931	199	240
Number on register 31st December, 1931 ...	158	152
Average number present during the year ...	127·8	119·7

(2) *Odsal House Open-Air School.*—Particulars of this school respecting the situation, aspect, area, buildings, etc., were given in the 1927 report.

The children who attend this school are of all ages 6 to 14, and are those residing on the South, South East and South West sides of the City.

All meals are cooked on the premises, and the dietary is very similar to the one at Thackley. The older boys and girls are taught gardening and domestic handiwork, such as repairing of tools, apparatus for all practical arithmetic and geography, elementary upholstery, repairing of desks and chairs, decorative work, etc.

The following table gives the average increases in height, weight, etc., of the children discharged during the four years, 1928 to 1931:—

Year	Number of children discharged	Increase in Weight (kilos.)	Increase in Height (cents.)	Increase in Hæmoglobin (per cent.)	Increase in Chest Measurement (inches)	Average stay in months
1928	184	1·95	3·31	18·7	0·25	7·69
1929	398	2·15	3·63	14·2	0·29	7·97
1930	352	1·88	2·97	14·3	0·06	6·92
1931	419	1·84	2·31	17·7	0·09	5·53

The accommodation is 200. Particulars as to the number of children in attendance at Odsal House Open-Air School during the year are as follows:—

	Boys	*Girls*
Number of children on register 1st January, 1931 ...	147	88
Number admitted during the year	232	226
Number discharged during the year	271	202
Number on register 31st December, 1931	108	112
Average number present during the year	100·9	90·2

(*f*) *Residential Open-air School.*—On Tuesday, 4th November, 1930, 20 boys and 20 girls were taken into residence at the Odsal House Open-air School in buildings which had previously been used as a Residential School for the Blind and later as the School for the Deaf. The upper rooms are used as dormitories for children and the staff. The domestic

staff consists of Matron, Assistant Matron, Cook, and two Maids. The children selected for residence are delicate children from homes which are considered to be overcrowded and generally bad. (The first batch was selected from children who were already in attendance at the School.) The residential record card for each child includes information as to house, type, condition, living rooms, sleeping rooms, number of occupants and number of occupants of child's sleeping room, special comments, e.g. family history, environment, control, etc.

The first batch of children remained in residence for seven weeks which ended at the Christmas vacation, excepting two boys and two girls who on account of their poor physical condition were kept on for a further period. All the children showed signs of great improvement, the chief signs being in hæmoglobin and gain in height and weight. There was also a noteworthy improvement in the general conduct and behaviour of these children.

During the year 1931 76 boys and 79 girls were in residence at this school and the undermentioned table shows the improvement of their physical condition at the time of discharge:—

Sex	Number of children	Increase in Weight (kilos.)	Increase in Height (cents.)	Increase in Hæmoglobin (per cent.)	Increase in chest measurement (ins.)	Average stay in months
Boys ...	76	3·95	0·88	17·0	0·05	2·75
Girls ...	79	4·7	0·62	15·5	0·11	3·10

These numbers are included in the figures showing those in attendance at the Odsal House Open-Air School.

The menu for the residential children is as follows: Breakfasts and Dinners, Monday to Saturday the same as the day open-air children. Breakfasts, Sunday: bacon sandwiches, bread and butter, cocoa or milk. Dinner, Sunday: thin soup, meat and two vegetables, stewed fruit or fruit pie and custard. Teas: Bread and butter with one of the following: cold boiled bacon, meat roll (hot), meat sandwiches (mixed), shepherd's pie, scrambled eggs, fishcakes, fish pie, bananas and custard, fresh fruit salad and fruit and custard, and tea or milk.

10. PHYSICAL TRAINING.—The progress made in Physical Training continues to be satisfactory, particularly in Modern Schools, and no little credit is due to those Head Teachers who have attempted to interest parents as to the importance to their children of the systematic Physical Training carried on.

The principle of the daily practice of some form of organised physical exercise is gradually becoming better understood and posture shows evidence of greater attention.

11. PROVISION OF MEALS.—(*a*) The School Medical Officer has continued to co-operate in the work of the Canteen Committee and the provision of school meals, careful attention being given to the dietaries, quality of foodstuffs, the conditions at the Central Cooking Depot and the various dining centres.

(*b*) Numerous cases have been reported to the Committee of children found during Medical Routine and Clinic Inspections to be suffering from malnutrition, anæmia, etc., and the supply of school meals to these children has been beneficial.

(*c*) In connection with the Special Services Regulations of the Board of Education referring to arrangements for recording the effect of free meals on the physical and mental condition of the children concerned, head teachers have, throughout the year, examined and reported immediately a child is first provided with free meals, at the end of the succeeding fortnight and afterwards at intervals of six months, or on the date on which the child ceases to receive free meals. Particulars of weight and height, under specified conditions, are obtained and the head teacher furnishes a report on the physical and mental condition of the child at such examination.

(*d*) During the twelve months ended 31st March, 1931, by reason of trade depression, there was a large increase in the number of children provided with meals, 1666 more children having been supplied with meals free, and 217 more whose meals were partially paid for. During this period the increase in the number of dinners provided was 244,090, breakfasts 40,466, total increase in meals provided 284,556.

Number of meals provided:—

	Year ended 31st March, 1930		Year ended 31st March, 1931	
1.—Dinners:—				
(*a*) From Green Lane	854,203		1,103,562	
(*b*) By Caterers	21,399		16,130	
		875,602		1,119,692
2.—Breakfasts:—				
(*a*) From Green Lane	111,970		188,537	
(*b*) By Caterers	86,916		50,815	
		198,886		239,352
		1,074,488		1,359,044

(3) Total net cost per meal:—

(*a*) Food only	1·252d.	1·203d.
(*b*) Administration only	1·345d.	1·331d.
	2·597d.	2·535d.

4	Number of children dealt with:—							
	(*a*) Total number of individual children who received any meals free ...				3,844			5,510
	(*b*) Total number of individual children whose meals were partially paid for				732			949
5	Payment by Parents:—	£	s.	d.		£	s.	d.
	(*a*) Amounts recovered from parents after prosecution or threatened prosecution	9	2	0		13	11	6
	(*b*) Amounts received from parents in cases where the full cost has been borne by them voluntarily ...	1,731	6	9		1,639	13	0
	(*c*) Amounts received from parents in cases where the meals have been partially paid for	83	8	0½		107	5	10½
6	Amount received from Public Assistance Committee on account of tickets for meals supplied by them to children, as "Relief"	28	7	0		18	9	9

12. SCHOOL BATHS.—The reorganised scheme for swimming instruction has more than justified itself. Not only has a higher standard of teaching caused much improvement in style, but a greater interest has raised the number of annual attendances from 110,000 to approximately 200,000. The examinations for proficiency certificates which are held bi-monthly and simultaneously in different baths in the city have been so well attended that it has been found necessary to specify times of admission for competitors in the various tests. Two Infant Departments send groups to the Swimming Baths weekly for "showers;" four schools equipped with shower baths have sent groups regularly for some years, while many departments make use of the Cottage Baths provided and managed by the Baths' Committee.

13. CO-OPERATION OF PARENTS.—Parents are invited to attend the Routine Medical Inspection of their children in both Secondary and Elementary Schools and all medical examinations at the various Clinics.

The presence of the parents affords an opportunity to the Medical Officers for giving advice and explanations about the children's health, also in cases where operations for Tonsils and Adenoids or treatment at any of the Special Departments are recommended by the Medical Officer, the consent of the parent is obtained at the time of the inspection, thus causing no delay in these cases being referred and treated.

The percentage of parents present at the Routine Inspections was very much the same as that for the year 1930. From Table VIII at the end of the Report it will be found that 79·0 per cent. of parents were present at the Routine Inspection of boys and 82·6 per cent. present at the Routine Inspection of girls in the group of entrants, against 82·2 and 83·7 in 1930.

14. CO-OPERATION OF TEACHERS.—The School Medical Officer is much indebted to the Teachers for the help given at the Routine Inspections, for cases referred to the School Clinics, reporting outbreaks of infectious disease amongst the scholars and sending reports on Special cases to the School Medical Officer. Their support goes far to lighten the work of the Medical Officer. In return, the School Medical Department does everything possible to arrange the School Medical Inspections at such times and periods as will least interfere with the educational work of the School.

The influence of the Head Teachers with the parents helps the attendance of children at the School Clinics for both medical and dental purposes and the teachers' special knowledge of the children and their environment is very helpful to the Nurses in " following up."

15. CO-OPERATION OF SCHOOL ATTENDANCE OFFICERS. —The information gained by the School Attendance Officers in visiting the homes of the children is given to the School Medical Department in all cases where difficulty is obtained in securing the attendance of children at the School Clinics, and is much appreciated ; many cases having occurred during the year where three appointments have been made for a child to attend the School Clinic without any result, but in each case the Attendance Officer has finally secured the child's attendance. The medical certificates given by private practitioners, collected by the School Attendance Officers, are all kept at the Central Clinic after particulars have been entered on the Medical Record Cards of the children concerned.

The School Attendance Officers also assist in the collection of accounts outstanding for medical treatment and spectacles supplied to children in cases where the parents have failed to pay at the School Clinics.

16. CO-OPERATION OF VOLUNTARY BODIES.—The help given by the Bradford Cinderella Club in providing children referred to them by the Medical Staff with the necessary clothing and boots, also by sending children to the Ambler Home, Morecambe, has been much appreciated.

The Guild of Help visitors have also assisted the School Medical Service by referring cases to the School Clinics, and by giving information obtained during their visits to homes.

The Charity Organisation Society has also assisted the School Medical Service in helping cases referred to them by the School Medical Officers, and also by sending children to Holiday Homes and Convalescent Homes.

During the year many cases of neglected children have been brought to the notice of the National Society for the Prevention of Cruelty to Children's Inspectors, with beneficial results to the children concerned. The Inspectors have also visited cases where the parents had refused to obtain necessary medical attention prescribed by the School Medical Officers.

17. BLIND, DEAF, DEFECTIVE and EPILEPTIC CHILDREN.

(*a*) The methods adopted for ascertaining and dealing with children who are defective within the meaning of Part V of the Education Act, 1921, are as follows :—

The majority of cases are found during the Routine Inspections in the Schools and the Special Inspections at the School Clinics. Others are referred by Head Teachers and School Attendance Officers. Whenever a case is found, or referred, a special appointment is made for the child to be medically examined at the Central School Clinic by the Chief Assistant School Medical Officer, who makes all recommendations to the Local Education Authority for admittance to the various Special Schools in the City.

(*b*) All Mentally Defective Children of School age, not in attendance at Special Schools, are placed under the supervision of a Voluntary Care Committee. The children also attend the School Clinic, at periods named by the Certifying Officer, for re-examination, or are visited at their homes or Elementary Schools by the Medical Officer.

(*c*) The arrangements made for the after care are carried out by the Local Mental Deficiency Committee. All children who pass through the Special Schools are notified to this Committee under Section 2 (2) (a) or (2) (b) of the Mental Deficiency Act, 1913. This Committee has a Voluntary Committee which undertakes the visitation of such persons at regular intervals, and the reports of these visitors are presented to the Committee not less than twice each year.

All blind children reaching 16 years of age are notified to the Blind Persons Act Committee, and are then referred to the Royal Institution for the Blind for Training Courses. All children leaving the Special Schools are visited and kept under the supervision of the Special Schools Sub-Committee.

Each Special School has a House Committee, which is composed of members of the Education Committee, along with voluntary workers, who visit the homes of the children and submit their reports to meetings which are held at regular intervals.

General Review of the Special Schools:—

(1) *The Myope School.*

The school at Daisy Hill is self-contained, exceedingly well lighted built of brick and stucco, and is of the open-air type. It is provided with Dining Hall, Teachers' Room, Medical Officer's Refraction Room, Kitchen, Dressing Rooms and Lavatories, in addition to the requisite Class-rooms and Assembly Hall. It was specially built for short-sighted children in a six-acre field which is encircled by a plantation of trees. The accommodation is 178.

(*a*) Entrance to School.—Children found at the Eye Clinics by the Assistant School Medical Officers to be suffering from Myopia which is likely to become worse if the child's education is continued in an ordinary school are referred to the Chief Assistant School Medical Officer who re-examines the child and makes recommendations as to which school he or she should attend.

The standard adopted is all children with four diopters or over and children with under four diopters in cases where the Myopia is progressive.

(*b*) Methods of teaching.—Each child has a special myope desk with a blackboard suitably sloped, which is easily convertible into a horizontal table for manual work.

The time-table is so arranged as to leave most of the manual work for the afternoon. This includes for the older girls, such work as cookery and laundry, coarse knitting, cane work and nettings; and for the boys, printing, light woodwork, clay-modelling, raffia work, paper work, toy making and gardening.

The ordinary school subjects, literature, singing, arithmetic, geography, history, etc., are taught as efficiently as possible, within the limitations necessarily fixed by the absence of the usual school books. Writing by pen or pencil is replaced by freehand work at arms' length on blackboards.

(*c*) Meals.—The children stay at school all day and their meals, which are sent from the Green Lane Cooking Depot, are served in the Dining and Assembly Hall.

(*d*) Frequent examinations by Medical Officer.—The vision of all the children in the school is re-examined by refraction every three months until discharge.

(*e*) Discharge.—The children remain in the school until they reach 16 years of age, but there are cases in which the myopia has remained stationary for long periods where children are released by the Committee in order to take up suitable light employment, conditional that they attend the School Clinic for re-examination when required; others still of school age are discharged as fit for attendance at an ordinary Elementary School.

(*f*) Further Examination.—In most cases, children are re-examined by the Medical Officer for the school at intervals of six months after they have left the school.

Particulars as to the number of children in attendance at the School during the year are as follows:—

	Boys	*Girls*
Number on register 1st January, 1931	66	113
Number admitted during 1931	11	20
Number discharged during 1931	16	25
Number on register 31st December, 1931 ...	61	108

Children who have left during 1931 :—

		Boys	*Girls*
1.	Transferred to Private School	—	1
2.	Left the City	2	—
3.	Certified fit for Ordinary School ...	5	2
4.	Certified fit for Secondary School ...	—	1
5.	Went to work at 14 years of age ...	9	17
6.	Went to work at 15 years of age ...	—	2
7.	Went to work at 16 years of age ...	—	2
	Totals	16	25

It will be seen from the above figures that 31 children were admitted during the year. The average number admitted during the seven years previous was 51·1. The number discharged was 41, and the average number discharged for the seven years previous was 35·7.

In addition to the 169 children on the register of the school at the end of December, 1931, it will be noticed from Table III at the end of the report that there were 20 children attending Public Elementary Schools and 10 children at no school or institution.

Of the 20 children attending Public Elementary Schools, in 18 cases the parents objected to the children being transferred to the Myope School, and they are being kept under observation in Elementary Schools; 1 was under treatment at the Eye and Ear Hospital; and 1 was in the transition stage of being transferred to the Myope School.

Of the 10 children at no School or Institution, 3 of them were attending the Royal Eye and Ear Hospital or School Clinic for Keratitis and Corneal Opacities, and were excluded from attendance at School; n 1 case the parents objected to the child attending the Myope School, and on account of the state of the vision the child was excluded from school and was under observation; 3 children were receiving private treatment; the remaining 3 were excluded from school until arrangements were made for admission to the Myope School.

Children remain in the school on an average just under three years.

The figures obtained from the observation of 600 myopes, who have attended this school since it was opened, show that 20 per cent. showed no "progression" whatever, in 80 per cent. of the cases there was progression in the myopic condition, the amount varying over the three years from a quarter of a diopter to one diopter. No case showed more progression than one diopter.

Apparently stabilisation is established in from 12 to 24 months, when the children are discharged to ordinary schools or to work.

Further information respecting the condition of children who have left the Myope School will be found under the heading of "Special Enquiries," paragraph 22.

(2) The Deaf School.

On 29th April, 1930, the children were transferred from Odsal House to Bolton Royd which was originally a private house, but had recently been used as a Preparatory Girls' Grammar School. Particulars respecting the site, surroundings and buildings were given in the 1930 Report. The accommodation for deaf children is 45.

The children stay at the school all day and their meals are sent from the Green Lane Cooking Depot.

The Teaching Staff consists of head teacher and three assistants, and in addition one man attends two half-days per week to teach the boys cobbling.

The acquisition of Language is the most important item of the curriculum, and along with it the teaching of Speech and Lip-reading. Arithmetic is taught from the first, but other school subjects follow as language grows.

Speech is taught to all with varying degrees of success. Some learn to speak quite fluently, but it is found that even those who acquire the least, are better for the training, and do make use of the speech they have. No finger spelling is used. Most people fail to realise that when a deaf child comes to school he has no language, and that until a usable amount is acquired no other school subjects, such as geography and history, can be taught.

The semi-deaf or hard-of-hearing are taught in a class by themselves as their needs are very different from those of the really deaf.

The teaching of lip-reading, the correction of minor speech defects which so often accompany partial deafness, the development of the hearing they possess, and the individual attention which can be given in a small class, are the main points which mark their teaching. Otherwise their education proceeds much on the lines of the hearing children, even singing being included.

The usual manual occupations are taken by the younger children. The boys over eleven years of age attend the Frizinghall Manual Centre for Woodwork one half day each week. Boys of 12 and 13 have cobbling one half-day and later two half-days. The girls learn knitting and sewing (hand and machine) and also the renovation and alteration of garments. At 14 years of age they attend the Cookery and Housewifery classes at Green Lane Centre.

Particulars as to the number of children in attendance at the school during the year are as follows:—

	Boys	*Girls*
Number on register 1st January, 1931	18	20
Number admitted during 1931	2	2
Number discharged during 1931	2	5
Number on register 31st December, 1931 ...	18	17
1. Bradford children:—		
(*a*) Totally Deaf	11	10
(*b*) Partially Deaf	4	4
(*c*) Aphasic	1	3
2. Children from other towns:—		
(*a*) Totally deaf	2	—
Children who have left during the year :—		
1. Transferred to Hearing Schools (aphasic)	1	2
2. Went to work at 14 years of age (partially deaf)	1	1
3. Sent to R. C. Institution for Deaf ...	—	1
4. Left the City	—	1
Totals ...	2	5

Evening classes for instruction in Lip-reading are held at the Belle Vue Evening Institute. They are intended for those who have become deaf or hard-of-hearing after school life. The students are mainly people in middle life and they readily acknowledge the value they derive from a knowledge of lip-reading.

(3) Lister Lane School for Physically Defective Children.

This is a special school for children who are so incapacitated, principally on account of deformity or cardiac disease, that they are unable to benefit from education in an ordinary Elementary School.

In January, 1930, accommodation for nursery children (2 to 5) was provided at this school. Other children are admitted on attaining school age, or later, and stay till 16 years old.

Motor ambulances are provided for the conveyance of children unable to travel by the ordinary means of transport. Special chairs and couches are available in the class-rooms.

The School is designed on open-air lines with ample window space and playing grounds. The main block is orientated to get the maximum amount of sun. The children stay all day at school, their dinners being sent from the Green Lane Cooking Centre. Additional milk puddings are prepared in the School Kitchen, where also the girls get cookery lessons. The children rest for an hour on canvas stretchers after their dinners.

The Medical Staff consists of a Nurse and three Masseuses, who are employed whole-time, the Medical Officer, who visits one half-day a week, and a Consulting Orthopædic Surgeon, who visits one half-day a week. Massage, remedial exercises, baths and electricity form part of the routine treatment. Cellulose splints and jackets and simple metal splints are made and fitted at the School, and in a few cases boots and appliances have been provided by the Authority. The Orthopædic Surgeon operates on selected cases at St. Luke's Hospital.

Education is adapted to the needs and capacity of the individual. Although the educational curriculum prevents an early start in what will probably be the child's life work, needlework and knitting are taught at the ages of 7 and 8, and handiwork begins in the lowest classes and is graduated up to the period when definite vocational training can be commenced. Vocational training is becoming increasingly varied at this school. It has been realised that many of the children when they leave will be unable to earn a living. Accordingly a class has been arranged for such boys and girls in simple household tasks, such as cleaning, cookery, and laundry work, home repairs and rugmaking. This has proved immensely popular, the boys being as keen on doing what might be regarded as girls' occupations as the girls are in the more masculine tasks.

Some of the older girls too, help in the Nursery School with the small children during the dinner hour, but their help can only be given at such times as will not interfere with their education.

The disabilities under which these crippled children labour during school age and in after life are so great that every effort should be made during the former period to make them in the latter period independent and self-supporting members of the community. In mental capacity the children vary from those considerably retarded mentally to the acutely intelligent secondary school children. The physical capacity is almost as wide.

An analysis made by the Head Mistress from figures supplied by the After Care Committee regarding the employment of crippled children after they leave school is both interesting and encouraging.

Of 83 children who left during the last five years, 36 boys and 20 girls are in work, while 11 boys and 16 girls have not yet found employment. Of the latter, half a dozen are incapable of going out to earn a living. Of 47 who left at 16 years of age, 36 are working, while of 57 who left at 14 years of age 33 only are working. Though, of course, it is to be expected that older children would more readily find employment, yet it must be remembered that those leaving school at 16 are usually more severely crippled than those leaving at the younger age. So that their longer period of vocational training enjoyed by the older children may be fairly considered the cause of their higher percentage of employment.

There were 228 children on the School Roll at the end of the year, classified as follows :—

Defect	Boys			Girls			Total
	Aged under 5	Aged 5 to 10	Aged 11 to 15	Aged under 5	Aged 5 to 10	Aged 11 to 15	
Congenital Deformities, *e.g.*, Club-foot, Dislocation of Hipjoint, etc.	2	10	2	2	4	1	21
Birth Palsy, Torticollis, Infantile Hemiplegia, etc.	1	8	5	—	4	2	20
Deformities due to Infantile Paralysis ...	4	11	7	1	12	6	41
Deformities due to Rickets	1	1	—	3	2	—	7
Deformities due to Tuberculous Disease of Bones and Joints :							
1. Spine	—	4	5	—	4	5	18
2. Hip	—	3	5	—	6	1	15
3. Other regions ...	—	4	1	—	2	2	9
Heart Disease :—							
Congenital	1	11	4	—	9	4	29
Acquired	1	12	12	1	4	12	42
Other Conditions ...	1	9	6	—	6	4	26
Totals	11	73	47	7	53	37	228

	Boys	*Girls*
Number on Register 1st January, 1931	124	96
Number admitted during 1931	27	19
Number discharged during 1931	20	18
Number on register 31st December, 1931	131	97

Children discharged during the year :—

1.	Fit to attend an Elementary School ...	6	3
2.	Unfit to attend any School	—	—
3.	For employment at 16 years of age ...	7	8
4.	For employment under 16 years of age ...	4	2
5.	Left the City	2	3
6.	Deceased	1	1
7.	Other reasons	—	1
	Totals	20	18

The following table gives particulars of treatment given by the Masseuses at Lister Lane School :—

Defect	Nature of Treatment							
	Massage.		Electrical.		Remedial Exercises.		Splints and Jackets.	
	Children	No. of Treatments	Children	No. of Treatments	Children	No. of Treatments	Children	No. of Treatments
Tubercular Bones and Joints	11	283	—	—	21	1521	18	677
Osteo-Myelitis Left Hip ..	1	19	—	—	—	—	2	111
Rickets	7	208	—	—	3	188	1	8
Spinal Curvature	—	—	—	—	6	374	—	—
Heart Disease	—	—	—	—	6	383	—	—
Paralysis	57	3350	6	367	32	2742	2	69
Congenital Deformities ..	16	862	—	—	5	457	—	—
Arrested development ..	—	—	—	—	—	—	1	4
Congenital Dislocation Left Hip	2	102	—	—	—	—	1	4
Miscellaneous	6	203	1	27	1	106	1	32
Totals	100	5027	7	394	74	5771	26	905

(4) Class for Stammerers.

The Class for Stammerers at the Wibsey Council School was closed 24th July, 1931.

The seven children who had been in attendance were all medically examined and disposed of as follows: five were admitted to ordinary elementary schools and two to open-air schools.

(5) The Margaret McMillan Special Day School for Mentally Defective Children.

The history of Mental Defective Schools, particulars respecting the present buildings, and photographs of the new Boys' School which was opened 23rd September, 1929, appeared in the 1929 report.

As far as possible, with mentally defective children, the chief aim is to teach these children those things which will be most useful and helpful after leaving school, when to a certain extent they have to rely on themselves, so that although limited in many ways they may at least try to be decent and happy citizens by taking a pride in themselves and their homes.

Curriculum.—Boys.—There is about three-quarters of an acre of land attached to the school. Gardening forms the central activity of the boys' work during the "open" months. There is also a greenhouse which gives an added interest in their work, in that they are able to rear plants from seeds and cuttings and watch the growth and development of plant life from its earliest stages even during the "closed" months, besides being able to cultivate their own bedding-out plants.

Much of the woodwork for the younger boys is connected with the garden. For the younger boys, the preparatory handwork includes raffia and basket work as well as lighter woodwork. For the older boys there is more advanced woodwork, and apart from gardening, there is definite vocational training in tailoring and cobbling, for boys who may have shown special aptitude and interest. Simple metalwork is also taught.

Towards the end of their course, a few boys are working definitely at their trade two days a week at cobbling and three days at tailoring. While their general elementary education is carried on, up to the limit of their ability, the work is related as far as possible to the needs of daily life, and thus acquires a meaning from a connection with some practical activity such as carpentry and gardening, in which they are definitely interested.

Curriculum—Girls.—The girls are taught to read numbers, the names and values of coins, simple shopping and giving change, to tell the time, and weighing and measuring. To write names and addresses. Simple reading for higher grades.

A great deal of time is spent on needlework, the higher grades being taught to use a hand sewing-machine, the cutting out and making of suitable garments and decorative stitchery. (Several of the older girls are able to make a simple washing dress under supervision. All the overalls, curtains, cushion cases, etc. in use at the school are made by the girls.) Simple alterations, patching, and darning. Knitting coatees, socks, caps, scarves, etc.

The handwork is varied and includes raffia and canework, leather work, stencilling, wool rug making, chair caning, simple woodwork, and use of tools.

Domestic work is taught as washing up, scrubbing boards and tables, sweeping and dusting, making a bed, cleaning silver and cutlery, etc.

Cookery. Simple homely everyday cookery, using homely measurements.

Laundry. Use and care of boiler and other washing utensils. Washing various articles, starching and ironing.

Gardening. The girls have care of both the kitchen garden and flower garden.

Singing and Recitation. These help the girls in the use of the voice and also to appreciate beautiful words and music.

Country Dancing and Team Games. These are lessons which are keenly enjoyed by the girls, and are most helpful in teaching deportment, a free easy movement and also to take defeat in the proper spirit.

The school for boys provides accommodation for 150, and that for girls 90.

The numbers of children attending this School are shown in the following table :—

	On roll 1st January, 1931	Admitted	Discharged	On roll 31st December, 1931
Boys	82	5	25	62
Girls	56	11	10	57
Totals ...	138	16	35	119

Boys who have left during the year :—

1.	Went to work at 16 years of age	10
2.	Certified fit for ordinary school	1
3.	Transferred to Institution for Mentally Defectives ...	4
4.	Placed under guardianship of parents	8
5.	Left the City	1
6.	Certified ineducable	1
	Total	25

Girls who have left during the year :—

1.	Went to work at 16 years of age	5
2.	Placed under guardianship of parents	4
3.	Transferred to Residential school	1
	Total	10

(6) Grassington Sanatorium School.

Children found at Medical Inspections to be suffering from or suspected to be suffering from Pulmonary Tuberculosis are referred to the Tuberculosis Officer, who holds a Children's Clinic at 2 Howard Street each Friday at 1.30 p.m.

Children are selected by the Tuberculosis Officer for attendance at the Grassington Sanatorium School, and are conveyed there by ambulance.

Excepting an occasional case that is withdrawn by the parent or other reasons, such as infectious diseases, etc., the children remain at this school until discharged by the Medical Officer of the Sanatorium.

On January 1st, 1931, 25 boys and 23 girls were in residence at this school; 37 boys and 15 girls were admitted, 45 boys and 25 girls discharged, 1 boy and 1 girl became over school age during the year, leaving in residence on 31st December, 1931, 16 boys and 12 girls. It will, therefore, be noticed that the numbers in residence at the end of the year were less than those at the commencement by 9 boys and 11 girls.

The 28 children on register 31st December, 1931, were classified by the Medical Superintendent of the Institution, Dr. Cummings, as follows :—

		Boys.	*Girls.*
1.	Active Pulmonary Tuberculosis (including pleura and intrathoracic glands)	8	9
2.	Quiescent or arrested pulmonary tuberculosis (including pleura and intrathoracic glands)	–	–
3.	Tuberculosis of the peripheral glands	5	3
4.	Abdominal tuberculosis	2	–
5.	Tuberculosis of bones and joints (not including deformities due to old tuberculosis) ...	1	–
6.	Tuberculosis of other organs (skin, etc.) ...	–	–

Children under school age in the Sanatorium on 31st December, 1931:—

Boys: 1 under No. 3 as quoted above.
1 under No. 5.

Girls: 1 under No. 3.
1 under No. 5.

The 70 children discharged were dealt with as follows :—

Admitted to	Boys	Girls	Total
Thackley Open-air School	17	11	28
Odsal House Open-air School	10	8	18
Ordinary School	9	3	12
Over 14 years of age	1	—	1
Treatment at the Anti-tuberculosis Centre ..	4	1	5
St. Luke's Hospital, Bradford	2	—	2
McMillan School	1	—	1
Left the City	1	—	1
Transferred to Skipton Isolation Hospital ..	—	2	2
Totals	45	25	70

Mr. F. W. Goyder, M.B., F.R.C.S., Consulting Orthopædic Surgeon, attends this School monthly to supervise the treatment of Surgical Tuberculosis and arranges for any cases requiring Surgical Treatment to be transferred to the Orthopædic Clinic at St. Luke's Hospital.

ANTI-TUBERCULOSIS CENTRE.

The following particulars respecting the treatment of school children at the Anti-tuberculosis Centre have been supplied by Dr. Vallow, the Tuberculosis Officer :—

Children treated at the Anti-tuberculosis Centre :—	*Boys*	*Girls*
Number under treatment on the 1st January, 1931 ...	9	7
Number of new cases during the year	80	66
Number discharged during the year (including cases sent to Sanatoria)	83	57
Number remaining under treatment on 31st December, 1931 (including cases who were not sent to Grassington until January 1st, 1932)	6	16

18. NURSERY SCHOOLS.—At the end of the year there were seven Nursery Schools in Bradford, St. Ann's School was opened in the Spring of 1920, Princeville School in November, 1920, Lilycroft School in May, 1921 Wapping Road in October, 1925, Bowling Back Lane 5th November, 1929, Bierley School 10th November, 1930 and St. Joseph's R. C. 3rd November, 1931.

Full particulars respecting sites, buildings, equipment, gardens, dietary provided and general principles which guide the life of the Nursery School, etc., etc., have been given in previous reports.

The Medical Staff acts in close association with the Education Staff in connection with the general arrangements, equipment and dietary provided. The Assistant School Medical Officer visits the schools one half-day per month and the Nurse one half-day per week.

At the monthly visit to the School the Assistant School Medical Officer makes a general practice of thoroughly inspecting all children admitted since the previous visit, and excepting a few special cases, the children examined can be classed as Entrants to Nursery Schools. The analysis of these inspections will be found in Table II.

The following table gives the number of defects found at the periodical examinations (other than the entrance inspection) of Nursery School Children:—

Defect or Disease.	Number of Defects.			
	To be kept under observation but not referred for treatment.	Referred for Treatment.	Treated by this Authority.	Treated Otherwise.
Malnutrition...	1	36	35	1
Uncleanliness : Head	—	2	2	—
Skin : Ringworm—Head	—	3	3	—
Scabies	—	2	2	—
Impetigo	—	18	18	—
Other Diseases (Non-T.B.)...	—	11	10	1
Eye : Blepharitis	—	6	6	—
Conjunctivitis	—	3	3	—
Squint	3	9	9	—
Other Conditions	1	2	2	—
Ear : Defective Hearing	—	1	1	—
Otitis Media	—	10	10	—
Other Ear Diseases	—	3	3	—
Nose and Throat :				
Enlarged Tonsils ...	16	16	16	—
Adenoids	1	1	—	1
Enlarged Tonsils and Adenoids	8	15	13	2
Other Conditions ...	3	12	12	—
Enlarged Cervical Glands (Non-T.B.)	4	17	16	1
Defective Speech	3	—	—	—
Dental Disease	3	1	1	—
Heart and Circulation:				
Heart Disease—Organic ...	2	1	1	—
Functional ...	2	—	—	—
Anæmia...	1	2	2	—
Lungs : Bronchitis	4	39	37	2
Other Non-T.B.. Diseases	3	7	7	—
Tuberculosis: Skin	—	1	1	—
Nervous System: Other Conditions	5	—	—	—
Deformities : Rickets	1	8	8	—
Spinal Curvature ...	1	—	—	—
Other Forms ...	1	3	3	—
Mental Condition	3	—	—	—
Infectious Diseases	—	4	4	—
Other Defects and Diseases ...	6	36	29	7
Minor Ailments	—	21	21	—
Totals ...	72	290	275	15

19. SECONDARY SCHOOLS.—(1) Medical Inspection:—

(*a*)	Secondary Schools provided by this Authority ...		9
	Secondary Schools not provided but aided ...	...	4
	Junior Technical School provided ...	...	1

(*b*) The pupils of all provided schools also all the City Council Scholarship pupils in the non-provided schools are submitted to a full inspection before admission. In the four non-provided schools paying pupils admitted since the previous Medical Inspection are submitted to an inspection. At the annual medical inspection all children 12 years of age together with all children over the age of 12 years are submitted to a full medical inspection.

(*c*) All pupils attending the Secondary Schools are inspected.

(*d*) The arrangements for following-up the defects discovered at the inspections are the same as those for Elementary Schools. (See paragraph 7, pages 153 and 154.)

(2) Medical Treatment:—

(*a*) Forms of treatment provided under arrangements made by this Authority are given in paragraph 8, Medical Treatment. The summaries of all defects found with the recommendations of the Medical Officers along with the number treated are given in the tables under the heading of "Secondary Schools," also the number of children examined and treated by the School Dentists, which are given in Table IV, Group IV.

(*b*) Treatment is available for all children who reside within the city boundary. Fee-paying pupils who attend the Non-provided Grammar Schools in the city, but who live outside the city are allowed treatment for minor ailments only.

(*c*) In most cases of Secondary School children receiving treatment for which any payment is charged by the Authority, the amount due is paid at the time of treatment; at the end of each month cases that have not paid are notified to the School Attendance Department, who undertakes the collection of amounts due.

During the year the Woman Medical Officer has been employed about five half-days per week on work in connection with the Secondary Girls' Schools. In the Boys' Secondary Schools a similar amount of time has been spent, the Medical Officer in each of the four districts taking the Secondary Boys' School in his particular district. Medical Inspections have been carried out in all the Secondary Schools under this Authority, also in the Bradford Boys' Grammar School, the Girls' Grammar School, St. Bede's Grammar School and St. Joseph's College for Girls.

It will be seen from Table I that 4,233 children were examined during the year, compared with 3,863 in 1930, 3,808 in 1929, 3,863 in 1928, 3,999 and in 1927.

20. CONTINUATION SCHOOLS.—No provision is made for the Medical Inspection of pupils in Continuation Schools by this Authority.

21. EMPLOYMENT OF CHILDREN AND YOUNG PERSONS Education Act, 1921, Part VIII, Section 90 to 108.

There has been no change in the administration of the Bye-laws for the control of young persons trading in the streets, and for the regulation of children in general employment.

The provisions of the Bye-laws controlling these employments have been so widely and thoroughly circulated throughout the City that flagrant offences rarely occur.

Approximately 500 children were known to be employed out of school hours during the year, the chief occupations being those of errand boys or girls in connection with shops of Newsagents, Milk Dealers, Grocers, Butchers, Confectioners, and Greengrocers. The number of offences discovered during this period was 188, these figures relating to 102 children. Warning notices were served in respect of 185 of these complaints, and in three cases proceedings before the magistrates were instituted, when fines amounting to £5 19 0 and 3/- costs were imposed.

Forty-eight children, who were under 12 years of age, were found to be employed contrary to the provisions of the Education Act, and in every case warnings were sent to the employers concerned.

Children Employed in Public Entertainments.

During the year 39 applications were made and granted to enable children to take part in public entertainments. The whole of these children were examined by the School Medical Officer in order to ascertain their fitness for this work, and in each case they were certified as being fit.

Fourteen children have visited Bradford under licences issued by other Education Authorities and have taken part in public entertainments at the various places of amusement in the City.

In addition, 14 children have been engaged in the Alhambra Theatre Christmas Pantomime.

One child was found to be taking part in a public entertainment after 7 in the evening without having a licence so to do. The employer and the parents were warned and the provisions of the Act and the Special Regulations and Orders were explained to them.

The Statutory Rules and Orders are strictly enforced. Apartments in respect of children on tour are very carefully inspected ; the children are chaperoned to and from the theatre, and attend school regularly.

The dressing rooms at the theatres and music halls are regularly inspected, and the children checked as to the time they left the theatre, etc.

STREET TRADING.

No girl under the age of 16 years is permitted to engage or to take part in street trading, and youths desiring to follow this occupation must be 15 years of age and be certified as fit for this occupation by the School Medical Officer.

Six licences were issued during the year and during this period 17 boys and 3 girls were found illegally trading in the streets without licences. The employers and parents of 19 of these children were warned that a repetition of the offence would involve them in legal proceedings, and in the remaining instance the parent was prosecuted and fined 20/-.

Having regard to the size of the City, there is no serious ground for complaint, either with regard to the employers of children or respecting the young persons trading in the streets.

In the work of supervision of Street Traders the Police have readily and effectively co-operated with the officials of the Education Department.

Twenty-six children attending the Secondary Schools of the City have been found employed out of school hours, and the parents were warned as to the breach of the agreement.

(ii) The co-ordination of the work of the School Medical Service with that of the Juvenile Employment Bureau is carried out as far as possible: previous to leaving school a Juvenile Employment Card is completed for each child, on which is entered particulars respecting the physical condition, height, hearing, eyesight, and general health. These particulars are taken into consideration in deciding what occupation a child is suitable for. In exceptional cases, children are medically examined by the Chief Assistant School Medical Officer at the request of the Officer-in-Charge of the Bureau.

The Juvenile Employment Bureau is also of great assistance in placing children in employment who have attended the Special Schools; from the period 1922 to 1930, occupations were obtained by the Bureau for twenty-eight children who had attended Lister Lane School for Physically Defectives and for three children who had attended the Deaf School.

The following information has been taken from the Annual Report of the Juvenile Employment Bureau:—

During the year ended 31st July, 1931, the work of the Bureau has been very difficult owing to the depression in the Textile Industry, which employs the much greater portion of the juvenile labour in

Bradford. Firms which have not been obliged to close down entirely have been working short-time with skeleton staffs and the position for juveniles leaving school during the year has been very discouraging. Thus, "Choice of Employment" which is the primary object for which the Bureau exists, has tended to become somewhat of a misnomer and any suitable employment has often been accepted through sheer necessity.

Still the advisory work of the Bureau goes on and the young people are encouraged and assisted to keep themselves fit both mentally and physically in readiness for the time when the tide turns and their services will be required, reminding them always that when that time comes, those best prepared will be the first to be employed.

In spite of the bad trade conditions, much real progress has been made in many directions and the Bureau continues to be recognised as a necessary part of the educational system of the city. Through its efforts more vacancies have been filled than in any previous year since 1924, when the present scheme came into operation, the placings have been increased by 158 per cent.

For the purpose of After Care, the city is divided into eighteen districts, roughly coinciding with the Municipal Wards, and each district is served by a Committee of Voluntary Helpers. It is pleasing to report that every child leaving school during the year has received at least one visit, and reports from various parts of the city prove that the interest taken in the children and the advice given by the visitors is much appreciated by parents.

The Junior Instruction Centres for Boys and Girls at the Ryan Street and Otley Road Schools respectively were opened on the 1st October, 1930, and have amply justified their existence. Under the 1930 Unemployment Insurance Act, it was made a condition for the receipt of Unemployment Insurance Benefit that juveniles claiming the benefit should be required to attend courses of instruction where such courses were available.

Juveniles have to attend for five days of the week and five hours per day. Half of this time is devoted to Handicraft, the other half being given to General Education, Physical Training and Games, and Swimming.

From the 1st October, 1930, to 31st July, 1931, the total number of boys enrolled (not including re-entries) is 668. The total entries with returns is 973. Of these approximately 85 are non-claimants (boys who are not entitled to unemployment benefit) and who have attended voluntarily. The general level of attendance has been remarkably consistent. For staffing purposes an average weekly attendance of 128 is required, whereas our average weekly attendance over the whole period is approximately 135. The average weekly change-over

(boys leaving for work and boys who have become unemployed) has been about 15. Two of the original boys are still in attendance, not having worked since the Centre opened. The following is an analysis of the occupations of those enrolled: Millhands, 263; Office workers, 35; Shop assistants, 41; Butchers, 12; Errands and messengers, 26; Warehouse and Packing, 45; Labourers, Farm Labourers, Casual Labour, 57; Boot repairers, 5; Apprentice Tailors, 5; Painters and Decorators, 16; Printing, 3; Hairdressing, 3; Engineering, 115; Bakery and Confectione y 13; Joiners, Polishers, etc., 20; Railway workers, 5; Hotel workers, 2; No employment, 2.

On the first day 71 girls were enrolled and on the last day of July, 97 were in attendance. In this time, 687 girls have passed through the Centre, inclusive of those re-admitted after a period of work, but exclusive of those who have continued voluntarily to attend after reaching 18 years of age.

The number of reports received by the Bureau on children leaving school at the end of the several school terms during the year 1st August, 1930, to 31st July, 1931 were as follows:—

	Boys	Girls	Total
October, 1930	232	261	493
December 1930	280	309	589
Easter, 1931	351	380	731
Midsummer, 1931	626	541	1167
Totals	1489	1491	2980

Of the 1,489 boys and 1,491 girls who had taken up first occupations on leaving school, 56 boys and 61 girls had attended Special Schools in the city.

During the year the number of juveniles placed in occupations by the Bureau were as follows:—

	Number between the ages of				Total
	14—15	15—16	16—17	17—18	
Boys	341	123	180	136	780
Girls	450	137	267	190	1044

The figures for the year ended July, 1930, were 639 boys and 815 girls.

(iii) The findings of the School Medical Service as regards the physical conditions of employed children and young persons.

Children employed in Public Entertainments. — Groups of children selected by the Managements for employment at the Pantomimes in the Theatres are medically examined some weeks before the Pantomime season begins.

Each child is examined in the presence of its parent who is asked to supply particulars of the child's previous history and only those children who are found to be physically sound are passed as fit for the training and performances.

During the preliminary training the children are occasionally visited by the Chief Assistant School Medical Officer at their evening instruction class, also during the run of the Pantomime in their quarters at the Theatre.

At the end of the Pantomime season the children are all re-examined at the School Clinic, and records are again made of their heights, weights, etc.

The children are extremely well supervised and well cared for, before, during and after each performance. Their quarters are roomy and comfortable.

Medical examination proves them to have actually improved in health as a result of, or in spite of, their exertions. This improvement is exemplified in their increase in weight, increase in chest capacity, in their marked mental alertness, and in their appearance of general physical well-being. The Medical Officer has repeatedly failed to detect signs of fatigue in the children.

It must be remembered, of course, that these children have been specially selected and that they are in sound physical condition in the first instance, but it is obvious that their occupation in Pantomime is having no detrimental effect upon their health.

During the year 1931, 39 children were examined on the 9th November, and 38 of these were re-examined at the close of the Pantomime Season in February, 1932. Thirty-five children had gained in height and weight and hæmoglobin, and 3 had lost a little in weight. The average net gain per child was: height, half an inch, weight, 2·16 lb., and their average hæmoglobin content was 85 per cent.

It would appear that regular exercise is a factor that plays an important part in the development and maintenance of growth and good health. One is inclined to believe that the part played by exercise is no less important than, for instance, an adequate supply of suitable food or fresh air.

22. SPECIAL INQUIRIES.—(1) During the year 1928 a system of re-examination at six to twelve monthly intervals of all children who had been discharged from the Myope School during recent years was commenced, to obtain the incidence of increase of myopia.

At these re-examinations information is obtained respecting their occupations and the conditions under which they are employed.

In all cases a careful correction of the myopia was made, new lenses were prescribed where necessary, and advice on visual hygiene and general health was given.

In cases where the present occupation appeared to be placing an undesirable strain on the eyesight, recommendations were made to alleviate this as far as possible.

During the period 1928 to December 1931, 154 children were re-examined, some of them only had one, others had five or six re-examinations. All these cases have been tabulated showing the degree of myopia at each re-examination and their occupations. The following is a summary of the 154 children re-examined:—

(1) Occupations—

Attending ordinary Elementary Schools	12
Shop assistants	25
Employed in Textile Mills	42
Errand boys or girls	8
Boys learning various trades	11
Box makers (all girls)	4
Domestic Service and Home Duties (all girls) ...	10
In Warehouses (boys)	4
Newsvendor, Coal Carter, and Bottle Washer (boys)	3
No occupation or occupation unknown	35
Total ...	154

(2) Vision—

Improved	26
Stationary	59
Since leaving Myope School Myopia has progressed	
From $\frac{1}{4}$ to 1 diopter	47
From 1 to 2 diopters	14
From 2 to 3 diopters	5
From 3 to 4 diopters	2
Myopia increased 6 diopters right eye ... ... } Decreased 0·5 left eye ... ... }	1
Total ...	154

The case of increase of 6 diopters right eye, was a boy who left the Myope School in 1924 and is employed as a shop assistant. At the first re-examination the Myopia had increased from 11 to 13 diopters right eye, left eye no change (7 diopters). At the last re-examination, four and a half years after leaving school, the Myopia was 17 diopters right eye and 6·5 diopters left eye. His vision was 3/60, 6/60 without glasses, and 6/36, 6/6 with glasses. The two cases showing increases of 3 to 4 diopters were as follows: 1 boy with 17 diopters right and 18 diopters left on leaving school. Twelve months later and 18 months later no change. Two years later 20·5 diopters right and 19 diopters left. Two and a half years later no change, still 20·5 and 19. Vision without glasses 6/0, 6/0; with glasses 6/36, 6/18; no occupation. One girl 6·5 diopters right and 8·75 diopters left, 12 and 18 months later no change. Two years later 6·5 diopters right, 12 diopters left. No occupation, without glasses 6/36, 6/36, with glasses 6/18, 6/36.

Of the cases which had progressed over one and up to two diopters, eight of them were in one eye only and the five progressed over 2 and up to 3 diopters, four had progressed in one eye only; also of the 46 progressed up to one diopter most of them were in one eye only.

(2) Care of the Myopes in Schools other than the School for the Myopes.

Certain rules of management as applied to children attending the Myope School were adopted in the cases of:—

(1) Children who had been recommended for attendance at the Myope School, but had not been admitted for various reasons.

(2) A series of cases in the Girls' Secondary and Grammar Schools.

These were as follows:—

(i) The children should never under any circumstances use their eyes for near work in artificial light.

(ii) Instructions were given with regard to food and rest.

This advice was on the whole carried out effectively and was given to all cases not attending the School for Myopes. There were three classes of such cases:—

1. *Those who attended an ordinary open-air school* and who required a toning up of the whole system. There were 15 such cases. In only two was there "progression" of the myopia and in both cases this was slight.

2. *Those who attended ordinary schools* and who were treated as ordinary pupils with the proviso that they must do no near work in an artificial light, etc. There were 35 such cases, in only 6 of which was there any "progression" and that only just appreciable.

3. *Those who attended secondary schools.* There were 163 such cases, all girls. These pupils were given the usual advice and were also excluded from home-work. The Headmaster and Headmistress did all they could to see that this advice was carried out. In 53 out of the 163 cases there was no "progression" of the myopia.

The rest showed some "progression," the average annual amount being a quarter of a diopter.

(3) In the autumn of 1931 Head Teachers of all schools were asked to notify the Director of Education of any child who in their opinion was suffering from defective hearing.

Thirty-three children were reported. These were examined by the Chief Assistant School Medical Officer in November and the following table gives the result of the examinations:—

Number of children referred	Children examined	Hearing normal	Hearing slightly defective			Deaf recommended Deaf School
			Right ear	Left ear	Both ears	
33	32	17	2	3	9	1

The child who was not examined was found to be under treatment at the Eye and Ear Hospital.

23. MISCELLANEOUS.—During the Summer of 1931, 1489 Junior Scholarship candidates were medically examined a decrease of 51 from the previous year. Of that number 283 boys and 236 girls, or 34·8 per cent. were found to be suffering from some abnormality, full particulars of which will be found in the undermentioned table, which again proves the necessity of children being medically examined before they are allowed to enter Secondary Schools.

Of the 519 found abnormal, 299, or 20·08 per cent. of the number examined were referred for treatment.

Defect or Disease.	Number of Defects.	
	To be kept under observation, but not referred for treatment.	Referred for treatment.
Malnutrition	29	26
Uncleanliness : Head	—	1
Body	1	1
Skin : Impetigo	—	1
Other Diseases (Non-Tub.)	—	5
Eye: Blepharitis	—	1
Defective Vision	114	140
Squint	4	4
Other Conditions...	2	—
Ear: Otitis Media	—	3
Nose and Throat: Enlarged Tonsils	73	75
Enlarged Tonsils and Adenoids ...	1	12
Other Conditions	2	23
Enlarged Cervical Glands	26	7
Defective Speech	1	—
Dental Disease	2	58
Heart and Circulation: Heart Disease—Organic ...	8	3
Functional	14	3
Anæmia ...	2	16
Lungs: Bronchitis	4	5
Other Non-Tubercular Diseases	2	3
Tuberculosis : Pulmonary : Suspected	—	2
Glands	1	—
Hip	1	—
Nervous System: Chorea	—	3
Other Conditions	2	2
Deformities: Spinal Curvature	11	11
Other Forms	6	6
Infectious Diseases	—	1
Other Defects and Diseases	5	15
Minor Ailments...	1	3
Totals	313	430

In practically all cases where the Medical Officer had recommended treatment, the treatment was carried out at the School Clinic or Special Departments under this Authority. Of the numbers found abnormal, 1 boy and 1 girl were certified by the Assistant School Medical Officers after consultation with the Chief Assistant School Medical Officer, to be physically unfit for Secondary School education.

In the cases of 5 boys and 6 girls, it was recommended that the scholarships be postponed for twelve months, 1 boy for six months, and 1 boy for three months.

In addition to the above, several children were certified to be fit providing that the treatment recommended by the School Medical Officers was obtained before the date fixed for their commencement at the Secondary Schools.

Other cases were certified fit on conditions that they were excluded from homework, and in other cases from gymnastics and games.

The number of cases certified as "unfit" and recommended for postponement of scholarship is much less than previous years not because of less defects having been found, but from past experience it has been realised that if parents would only act upon the advice and treatment recommended by the School Medical Officers it would not be necessary (save in exceptional cases) to interfere with the children's education by postponement of scholarship.

Particulars of cases found unfit for Junior Scholarships:—

1 boy—High Myopia.
1 girl—High Myopia.

Particulars of cases for whom scholarships were recommended to be postponed:—

Boys.

1. Malnutrition, bronchitis, rickets, spinal curvature, pigeon chest. Postpone 12 months.
2. High myopia. Postpone 12 months.
3. High myopia. Postpone 6 months.
4. Chorea. Postpone 12 months.
5. Progressive myopia, malnutrition. Postpone 12 months. (Admitted Thackley Open-Air School.)
6. Bronchitis. Postpone 3 months. (Admitted Odsal Open-Air School.)
7. Progressive myopia. Postpone 12 months.

Girls.

1. Myopia. Postpone 12 months.
2. Organic heart disease. Postpone 12 months.
3. Malnutrition, anæmia, slightly enlarged tonsils. Postpone 12 months.
4. Progressive myopia. Postpone 12 months.
5. Progressive myopia. Postpone 12 months.
6. Myopia. Postpone 12 months.

24. STATISTICAL TABLES.—The numbers of scholars on the registers of the Schools in the City on June 30th, 1931, were as follows :—

	Number of children on Register	Average Attendance
Elementary Schools	36403	32106
Secondary Schools	3594	3392
Central Schools	466	427
Special Schools	1133	984
Nursery Schools	483	312
Totals	42079	37221

In addition to the above, there were 96 pupils on the Register at the Junior Technical School (College of Arts and Crafts) and 2,044 on the Registers at the four "Non-provided, but Aided" Grammar Schools in the city.

TABLE I
RETURN OF MEDICAL INSPECTION

A.—Routine Medical Inspections.

Code Group	Boys	Girls	Total
Entrants	2260	2129	4389
Intermediates	2253	2077	4330
Leavers	1051	1096	2147
Totals	5564	5302	10866
Other Routine Inspections:			
Other Ages	492	476	968
Candidates for Secondary Schools ...	829	660	1489
Totals	1321	1136	2457
Special Schools	150	189	339
Nursery Schools ...	242	194	436

Secondary Schools.

Age.	Student Teachers and Bursars.	Routine Inspections.									Grand Total
		10	11	12	13	14	15	16	over 16	Total	
Boys ...	98	48	209	425	376	446	413	154	115	2186	2284
Girls ...	101	32	71	387	363	393	384	133	85	1848	1949
Total ...	199	80	280	812	739	839	797	287	200	4034	4233

B.—Other Inspections.

1. *Elementary Schools:*	Special Inspections	11307
	Re-inspections	13941
	Total	25248
2. *Nursery Schools:*	Special Inspections	672
	Re-inspections	835
	Total	1507
3. *Special Schools:*	Special Inspections	2187
	Re-inspections	3432
	Total	5619
4. *Secondary Schools:*	Special Inspections	1284
	Re-inspections	3096
	Total	4380

TABLE II

RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED, 31ST DECEMBER, 1931.

Defect or Disease	Elementary Schools				Secondary Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		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	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
Malnutrition	861	153	357	7	151	15	25	1
Uncleanliness (*see* Table IV, Group V) ...	—	—	—	—	—	—	—	—
Skin :								
Ringworm, Scalp ...	10	1	62	1	1	—	3	—
Ringworm, Body ...	10	—	82	—	—	—	2	—
Scabies	31	—	128	—	1	—	3	—
Impetigo	57	1	825	—	3	—	51	—
Other Diseases (Non-T.B.)	149	39	391	1	88	26	12	2
Eye :								
Blepharitis	62	3	151	—	8	—	2	—
Conjunctivitis ...	15	—	99	—	2	1	7	—
Keratitis	1	1	6	3	—	—	—	—
Corneal Ulcers ...	1	—	3	—	—	—	1	—
Corneal Opacities ...	—	—	—	—	—	—	—	—
Defective Vision (Ex. Squint)	881	611	1619	83	463	653	233	9
Squint	112	112	231	6	2	15	5	—
Other Conditions ...	15	7	251	2	1	3	14	1
Ear :								
Defective Hearing ...	43	17	83	13	7	4	2	—
Otitis Media ...	89	12	385	—	20	3	3	—
Other Ear Diseases ...	11	3	144	1	1	1	8	—
Nose and Throat :								
Enlarged Tonsils only	688	1012	69	11	89	159	17	1
Adenoids only ...	30	5	24	3	3	—	—	—
Enlarged Tonsils and Adenoids	245	38	178	23	12	1	2	—
Other Conditions ...	155	37	486	2	27	8	50	2
Enlarged Cervical Glands (Non-T.B.) ...	292	504	159	3	39	71	6	1
Defective Speech ...	13	36	—	4	3	2	—	1

TABLE II—*continued.*

Defect or Disease	Elementary Schools				Secondary Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		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	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
Teeth—Dental Disease (*see* Table IV, Group IV)	507	70	111	—	79	2	6	—
Heart and Circulation :								
Heart Disease Organic	46	110	8	11	12	23	3	1
Heart Disease Functional	38	179	16	33	12	45	2	5
Anæmia	410	85	661	51	113	60	31	4
Lungs :								
Bronchitis	393	99	294	4	19	1	5	—
Other Non-T.B. Diseases	109	41	808	5	6	3	7	—
Tuberculosis :								
Pulmonary Definite	—	—	4	—	—	—	—	—
Pulmonary Suspected	11	5	32	2	1	—	—	—
Non-Pulmonary—								
Glands ...	6	3	5	—	—	—	1	—
Spine	—	—	3	—	—	—	—	—
Hip	1	3	3	—	—	—	—	—
Other Bones and Joints	—	—	5	1	—	1	—	—
Skin	—	—	3	—	—	—	—	—
Other Forms ...	3	1	7	3	—	—	—	—
Nervous System :—								
Epilepsy	6	6	10	6	—	2	—	1
Chorea	33	9	104	25	3	2	4	1
Other Conditions ...	78	26	112	9	17	5	3	1
Deformities :—								
Rickets	37	63	8	4	14	18	—	—
Spinal Curvature ...	147	87	20	2	69	53	14	—
Other Forms ...	90	154	64	26	68	64	—	4
Mental Condition ...	18	45	6	80	—	1	—	—
Infectious Diseases ...	13	4	87	22	—	—	—	—
Other Defects and Diseases	431	120	6773	100	89	40	363	11
Totals ...	6148	3702	14877	547	1423	1282	885	46

TABLE II

RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31ST DECEMBER, 1931.

Defect or Disease	Special Schools				Nursery Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		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	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
Malnutrition	25	4	1	—	41	4	2	—
Uncleanliness (*see* Table IV, Group V)	—	—	—	—	—	—	—	—
Skin:								
Ringworm, Scalp ...	—	—	3	—	2	—	4	—
Ringworm, Body ...	—	—	4	—	1	—	—	—
Scabies	—	—	17	—	—	—	7	—
Impetigo	2	—	47	—	11	—	29	—
Other Diseases (Non T.B.)	4	3	13	—	12	2	6	—
Eye:								
Blepharitis	1	—	23	—	9	—	—	—
Conjunctivitis	1	—	24	—	5	—	—	—
Keratitis	—	2	1	—	—	—	—	—
Corneal Ulcers	—	—	—	—	—	—	—	—
Corneal Opacities ...	—	1	—	—	—	—	—	—
Defective Vision (Exc. Squint)	10	28	240	1	1	—	—	—
Squint	1	12	7	—	7	9	2	—
Other Conditions ...	1	1	22	—	2	1	3	—
Ear:								
Defective Hearing ...	1	—	9	5	2	1	—	—
Otitis Media	4	—	30	1	12	—	—	—
Other Ear Diseases ...	—	—	8	—	—	2	3	—
Nose and Throat:								
Enlarged Tonsils only ...	7	17	4	1	26	72	—	—
Adenoids only	1	—	2	—	3	—	1	—
Enlarged Tonsils and Adenoids	—	—	10	—	19	3	—	1
Other Conditions ...	3	4	45	—	16	4	—	—
Enlarged Cervical Glands (Non T.B.)	6	12	23	—	13	24	—	—

TABLE II—*continued.*

Defect or Disease	Special Schools				Nursery Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		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	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
Defective Speech	—	2	1	5	—	2	—	—
Teeth—Dental Disease (*see* Table IV, Group IV) ...	8	—	2	—	6	6	—	—
Heart and Circulation:								
Heart Disease, Organic...	1	1	—	2	2	6	—	—
Heart Disease, Functional	—	2	—	5	—	3	—	—
Anæmia	13	1	3	2	20	3	3	1
Lungs:								
Bronchitis	4	1	10	1	35	11	—	1
Other Non T.B. Diseases	7	—	5	—	14	1	—	—
Tuberculosis:								
Pulmonary, Definite ...	—	—	—	—	—	—	—	—
Pulmonary, Suspected ...	—	—	3	—	—	2	—	—
Non-Pulmonary:								
Glands	—	—	—	—	—	—	—	—
Spine	—	—	—	—	—	—	—	—
Hip	—	—	—	2	—	—	—	—
Other Bones and Joints	—	—	—	2	—	—	—	—
Skin	—	—	—	—	—	—	—	—
Other Forms	—	—	—	1	1	1	—	—
Nervous System:								
Epilepsy	—	—	1	2	—	—	—	—
Chorea	—	—	4	3	—	—	—	—
Other Conditions ...	—	3	—	—	2	1	—	—
Deformities:								
Rickets	—	—	—	1	14	10	—	1
Spinal Curvature ...	—	8	1	—	1	1	—	—
Other Conditions ...	—	14	3	4	3	5	—	—
Mental Condition	—	1	3	5	—	3	—	—
Infectious Diseases ...	—	—	4	—	2	—	—	—
Other Defects and Diseases	1	—	911	8	40	7	56	4
Totals ...	101	117	1484	51	322	184	116	8

TABLE II—*continued.*

B.—Number of Individual Children Found at Routine Medical Inspection to Require Treatment (Excluding Uncleanliness and Dental Disease).

Group	Number of Children		Percentage of Children found to require Treatment
	Inspected	Found to Require Treatment	
Code Groups :—			
Entrants	4389	1551	35·34
Intermediates	4330	1422	32·84
Leavers	2147	674	31·39
Total (Code Groups)	10866	3647	33·56
Other Routine Inspections:			
Other Ages	968	365	37·71
Candidates for Secondary Schools ...	1489	299	20·08
Total (Other Routine Inspections) ...	2457	664	27·02
Special Schools	339	62	18·29
Nursery Schools	436	209	47·94
Secondary Schools (Routine Inspections including other ages)	4233	1012	23·91

TABLE III

RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

			Boys	Girls	Total
Blind (including partially blind)	(1) Suitable for training in a School for the totally blind	At Certified Schools for the Blind	6	7	13
		At Public Elementary Schools	—	—	—
		At other Institutions ...	—	—	—
		At no School or Institution	3	2	5
	(2) Suitable for training in a School for the partially blind	At Certified Schools for the Blind or Partially Blind...	61	108	169
		At Public Elementary Schools	6	14	20
		At other Institutions ...	—	—	—
		At no School or Institution	4	6	10
Deaf (including deaf and dumb and partially deaf)	(1) Suitable for training in a School for the totally deaf or deaf and dumb	At Certified Schools for the Deaf	11	10	21
		At Public Elementary Schools	—	—	—
		At other Institutions ...	—	1	1
		At no School or Institution	—	—	—
	(2) Suitable for training in a School for the partially deaf	At Certified Schools for the Deaf or Partially Deaf ...	4	4	8
		At Public Elementary Schools	—	—	—
		At other Institutions ...	—	—	—
		At no School or Institution	—	—	—
Mentally Defective	Feebleminded	At Certified Schools for Mentally Defective Children	62	57	119
		At Public Elementary Schools	—	—	—
		At other Institutions ...	10	3	13
		At no School or Institution	14	8	22
	Notified to the Local Mental Deficiency Authority *during the year*	Details should be given on Form 307M	27	11	38
Epileptics ...	Suffering from severe epilepsy	At Certified Schools for Epileptics	4	2	6
		At Certified Residential Open Air Schools ...	—	—	—
		At Certified Day Open Air Schools	—	—	—
		At Public Elementary Schools	—	—	—
		At other Institutions ...	1	—	1
		At no School or Institution	2	2	4
	Suffering from epilepsy which is not severe	At Public Elementary Schools	7	4	11
		At no School or Institution	1	—	1

TABLE III—*continued.*

			Boys	Girls	Total
Physically Defective	Active pulmonary tuberculosis (including pleura and intrathoracic glands)	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	8	9	17
		At Certified Residential Open Air Schools ...	—	—	—
		At Certified Day Open Air Schools	1	1	2
		At Public Elementary Schools	—	—	—
		At other Institutions ...	—	1	1
		At no School or Institution	4	5	9
	Quiescent or arrested pulmonary tuberculosis (including pleura and intrathoracic	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	—	—	—
		At Certified Residential Open Air Schools ...	—	—	—
		At Certified Day Open Air Schools	25	15	40
		At Public Elementary Schools	26	18	44
		At other Institutions ...	—	1	1
		At no School or Institution	2	2	4
	Tuberculosis of the peripheral glands	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	5	3	8
		At Certified Residential Open Air Schools ...	—	—	—
		At Certified Day Open Air Schools	—	—	—
		At Public Elementary Schools	—	—	—
		At other Institutions ...	—	—	—
		At no School or Institution	1	—	1
	Abdominal tuberculosis	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	2	—	2
		At Certified Residential Open Air Schools ...	—	—	—
		At Certified Day Open Air Schools	—	—	—
		At Public Elementary Schools	—	—	—
		At other Institutions ...	—	—	—
		At no School or Institution	2	—	2

TABLE III—*continued.*

			Boys	Girls	Total
Physically Defective—*continued.*	Tuberculosis of bones and joints (not including deformities due to old tuberculosis)	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	1	—	1
		At Public Elementary Schools	—	—	—
		At other Institutions ...	—	—	—
		At no School or Institution	1	—	1
	Tuberculosis of other organs (skin, etc.)	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	—	—	—
		At Public Elementary Schools	—	—	—
		At other Institutions ...	—	—	—
		At no School or Institution	—	2	2
	Delicate Children, i.e. all children (except those included in other groups) whose general health renders it desirable that they should be specially selected for admission to an Open Air School	At Certified Residential Cripple Schools	—	—	—
		At Certified Day Cripple Schools	—	—	—
		At Certified Residential Open Air Schools ...	20	20	40
		At Certified Day Open Air Schools	220	228	448
		At Public Elementary Schools	244	223	467
		At other Institutions ...	—	—	—
		At no School or Institution	9	12	21
	Crippled Children (other than those with active tuberculous disease) who are suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life	At Certified Hospital Schools	—	—	—
		At Certified Residential Cripple Schools	—	—	—
		At Certified Day Cripple Schools	88	65	153
		At Certified Residential Open Air Schools ...	—	—	—
		At Certified Day Open Air Schools	—	—	—
		At Public Elementary Schools	5	1	6
		At other Institutions ...	2	2	4
		At no School or Institution	4	4	8
	Children with heart disease, i.e. children whose defect is so severe as to necessitate the provision of educational facilities other than those of the public elementary school	At Certified Hospital Schools	—	—	—
		At Certified Residential Cripple Schools	—	—	—
		At Certified Day Cripple Schools	40	30	70
		At Certified Residential Open Air Schools ...	—	—	—
		At Certified Day Open Air Schools	—	—	—
		At Public Elementary Schools	—	—	—
		At other Institutions ...	1	—	1
		At no School or Institution	1	3	4

TABLE III—ADDENDA

CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

	Combination of Defects	Sex	Type of School or Institution
1	Mentally Defective and Infantile Paralysis	F.	Attending Certified School for Mentally Defectives.
2	Mentally Defective and Infantile Paralysis	F.	Attending Certified School for Mentally Defectives.
3	Mentally Defective and Infantile Paralysis	M.	Excluded from School Attendance.
4	Mentally Defective and Infantile Paralysis	M.	Attending Certified School for Mentally Defectives.
5	Mentally Defective and Infantile Paralysis	F.	Excluded from School Attendance.
6	Mentally Defective and Infantile Paralysis	M.	Excluded from School Attendance.
7	Mentally Defective and Tuberculosis ...	F.	At Sanatorium. Usually attends Certified School for Mentally Defectives.
8	Mentally Defective and Tuberculosis ...	F.	Attending Certified School for Mentally Defectives.
9	Mentally Defective and Epilepsy ...	F.	Attending Certified School for Mentally Defectives.
10	Mentally Defective and Partially Blind...	M.	Attending Certified School for Mentally Defectives.
11	Blindness and Epilepsy	M.	Is being Educated at Home.
12	Blindness and Epilepsy	M.	Excluded from School Attendance.
13	Blindness and Infantile Paralysis ...	M.	Excluded from School Attendance. Being Educated at Home.
14	Epilepsy and Infantile Paralysis ...	M.	Excluded from School Attendance. Refuses Certified School for Epileptics.
15	Partial Blindness and Infantile Paralysis	M.	Attending Certified Day Cripple School.
16	Partial Blindness and Heart Disease ...	F.	Attending Certified Day Cripple School.
17	Hydrocephalus and Spina Bifida ...	M.	Excluded from School Attendance.
18	Epilepsy and Infantile Paralysis ...	F.	Attending Certified Day Cripple School.

TABLE IV.

RETURN OF DEFECTS TREATED DURING THE YEAR ENDED 31st DECEMBER, 1931.

TREATMENT TABLE: Elementary Schools.

Group 1.—Minor Ailments (excluding Uncleanliness, for which *see* Group V).

Disease or Defect	Number of Defects treated, or under treatment during the year		
	Under the Authority's Scheme	Otherwise	Total
Skin :—			
Ringworm, Scalp	70	1	71
Ringworm, Body	92	—	92
Scabies	157	2	159
Impetigo	882	8	890
Other Skin Diseases	528	12	540
Minor Eye Defects :— (External and other, but excluding cases falling in Group II)	591	10	601
Minor Ear Defects	726	19	745
Miscellaneous :— (*e.g.*, Minor Injuries, Bruises, Sores, Chilblains, etc.)	4694	5	4699
Totals	7740	57	7797

TABLE IV—GROUP 1—*continued.*

SECONDARY SCHOOLS.

Disease or Defect	Number of Defects treated, or under treatment during the year		
	Under the Authority's Scheme	Otherwise	Total
Skin :—			
Ringworm, Scalp	4	—	4
Ringworm, Body	2	—	2
Scabies	3	1	4
Impetigo	54	—	54
Other Skin Diseases	47	8	55
Minor Eye Defects :—			
(External and other, but excluding cases falling in Group II)	32	3	35
Minor Ear Defects	35	4	39
Miscellaneous :—			
(*e.g.*, Minor Injuries, Bruises, Sores, Chilblains, etc.)	292	1	293
Totals	469	17	486

SPECIAL SCHOOLS.

Defect or Disease	Number of Defects treated, or under treatment, during the year		
	Under the Authority's Scheme	Otherwise	Total
Skin:			
Ringworm, Scalp	3	—	3
Ringworm, Body	4	—	4
Scabies	17	—	17
Impetigo	49	—	49
Other Skin Diseases	17	—	17
Minor Eye Defects (External and other, but excluding cases falling in Group II) ...	73	—	73
Minor Ear Defects	52	—	52
Miscellaneous (e.g. Minor Injuries, Bruises, Sores, Chilblains, etc.)	821	—	821
Totals	1036	—	1036

TABLE IV—GROUP 1—*continued.*

NURSERY SCHOOLS.

Defect or Disease	Number of Defects treated, or under treatment, during the year		
	Under the Authority's Scheme	Otherwise	Total
Skin:			
Ringworm, Scalp	6	—	6
Ringworm, Body	—	—	—
Scabies	7	—	7
Impetigo	40	—	40
Other Skin Diseases	17	—	17
Minor Eye Defects (External and other, but excluding cases falling in Group II) ...	15	2	17
Minor Ear Defects	15	—	15
Miscellaneous (e.g. Minor Injuries, Bruises, Sores, Chilblains, etc.)	58	—	58
Totals	158	2	160

GROUP II—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I).

Defect or Disease	Number of Defects dealt with			
	Under the Authority's Scheme	Submitted to refraction by private practitioner or at hospital, apart from the Authority's Scheme	Otherwise	Total
Errors of Refraction (including Squint) (Operations for Squint are recorded separately in the Body of the Report)	2592	27	7	2626
Other Defect or Disease of the Eyes (excluding those recorded in Group I)	11	—	—	11
Totals	2603	27	7	2637

TABLE IV—*continued.*

GROUP II.—(*Cont.*).

Total number of children for whom spectacles were prescribed :—

(*a*) Under the Authority's Scheme	2122
(*b*) Otherwise	24

Total number of children who obtained or received spectacles :—

(*a*) Under the Authority's Scheme	2092
(*b*) Otherwise	24

SECONDARY SCHOOLS.

Defect or Disease	Number of Defects dealt with			
	Under the Authority's Scheme	Submitted to refraction by private practitioner or at hospital, apart from the Authority's Scheme	Otherwise	Total
Errors of Refraction (including Squint) (Operations for Squint are recorded separately in the Body of the Report)	653	35	11	699
Other Defect or Disease of the Eyes (excluding those recorded in Group I)	2	—	—	2
Total	655	35	11	701

Total number of children for whom spectacles were prescribed :—

(*a*) Under the Authority's Scheme	487
(*b*) Otherwise	25

Total number of children who obtained or received spectacles :—

(*a*) Under the Authority's Scheme	480
(*b*) Otherwise	25

TABLE IV—*continued.*

GROUP II—*continued.*

SPECIAL SCHOOLS.

Defect or Disease	Number of Defects dealt with			
	Under the Authority's Scheme	Submitted to refraction by private practitioner or at hospital apart from the Authority's Scheme	Otherwise	Total
Errors of Refraction (including Squint). (Operations for Squint are recorded separately in the body of the Report)	249	—	—	249
Other Defect or Disease of the eyes (excluding those recorded in Group 1)	—	—	—	—
Totals ...	249	—	—	249

Total number of children for whom spectacles were prescribed:—

(*a*) Under the Authority's Scheme 212
(*b*) Otherwise ... ... —

Total number of children who obtained or received spectacles:—

(*a*) Under the Authority's Scheme 207
(*b*) Otherwise ... ... —

NURSERY SCHOOLS.

Defect or Disease	Number of Defects dealt with			
	Under the Authority's Scheme	Submitted to refraction by private practitioner or at hospital apart from the Authority's Scheme	Otherwise	Total
Errors of Refraction (including Squint). (Operations for Squint are recorded separately in the body of the Report)	8	—	—	8
Other Defect or Disease of the eyes (excluding those recorded in Group 1)	—	—	—	—
Totals ...	8	—	—	8

TABLE IV—*continued.*

Total number of children for whom spectacles were prescribed:—

(*a*) Under the Authority's Scheme 3

(*b*) Otherwise ... ... —

Total number of children who obtained or received spectacles:—

(*a*) Under the Authority's Scheme 3

(*b*) Otherwise ... ... —

GROUP III—Treatment of Defects of Nose and Throat.

	Received operative treatment			Received other forms of treatment	Total number treated
	Under the Authority's Scheme in Clinic or Hospital	By Private Practitioner or at Hospital apart from the Authority's Scheme	Total		
Elementary Schools...	808	36	844	1086	1930
Secondary Schools ...	22	2	24	119	143
Special Schools ...	1	—	1	64	65
Nursery Schools ...	—	—	—	48	48
Totals ...	831	38	869	1317	2186

GROUP IV—Dental Defects. ELEMENTARY SCHOOLS.

(1) Number of children who were :—

(*a*) Inspected by the Dentist:

	Age				
Routine Age Groups	3	...	239	Total	17541
	4	...	859		
	5	...	1564		
	6	...	1729		
	7	...	2073		
	8	...	2313		
	9	...	2524		
	10	...	2370		
	11	...	1555		
	12	...	1092		
	13	...	1039		
	14	...	184		
Specials					4068
Grand Total					21609

TABLE IV—*continued.*

GROUP IV—Dental Defects (*continued*).

(*b*)	Found to require treatment ...		17611
(*c*)	Actually treated		9118
(*d*)	Re-treated during the year as the result of periodical examination ...		1824
(2)	Half-days devoted to Inspection	190	
	Treatment	1363	
			1553
(3)	Attendances made by children for treatment		10942
(4)	Fillings, Permanent Teeth	3468	
	Temporary Teeth	890	
			4358
(5)	Extractions, Permanent Teeth	3334	
	Temporary Teeth	15348	
			18682
(6)	Administrations of general anæsthetics for extractions		2476
(7)	Other Operations, Permanent Teeth ...	127	
	Temporary Teeth ...	298	
			425

SECONDARY SCHOOLS.

(1) Number of children who were :—

(*a*) Inspected by the Dentist :—

	Age			
Routine Age Groups	10 ...	31	Total	889
	11 ...	213		
	12 ...	150		
	13 ...	119		
	14 ...	142		
	15 ...	144		
	16 and over	90		
Specials				459
Grand Total				1348

(*b*)	Found to require treatment ...		1165
(*c*)	Actually treated		806
(*d*)	Re-treated during the year as the result of periodical examination ...		455
(2)	Half-days devoted to Inspection	6	
	Treatment	34	
			40

(3) Attendances made by children for treatment		1261
(4) Fillings, Permanent Teeth	1300	
Temporary Teeth...	—	
		1300
(5) Extractions, Permanent Teeth	879	
Temporary Teeth	159	
		1038
(6) Administrations of general anæsthetics for extractions		241
(7) Other Operations, Permanent Teeth ...	54	
Temporary Teeth ...	6	
		60

GROUP IV—Dental Defects.

	Special Schools.
(1) Number of children who were:—	
(*a*) Inspected by the Dentist	220
(*b*) Found to require treatment	214
(*c*) Actually treated	214
(*d*) Number re-treated	14
(2) Half-days devoted to Inspection and Treatment ..	38
(3) Total Cases treated	228
(4) Fillings: Permanent Teeth 102	
Temporary Teeth 51	
—	153
(5) Extractions: Permanent Teeth 35	
Temporary Teeth 144	
—	179
(6) Administrations of general anæsthetics for extractions	14
(7) Other Operations: Permanent Teeth .. 46	
Temporary Teeth .. 44	
—	90

NOTE.—Of the 228 children found to require treatment 214 were treated at school and the remaining 14 were treated under general anæsthetics at the Central Clinic.

GROUP V—Uncleanliness and Verminous Conditions.

ELEMENTARY SCHOOLS.

(1) Average number of visits per school made during the year by the School Nurses	12·2
(2) Total number of examinations of children in the School by the School Nurses	179384
(3) Number of individual children found unclean	5841

(4) Number of children cleansed under arrangements made by the Local Education Authority 209

(5) Number of cases in which legal proceedings were taken :—

(*a*) Under the Education Act, 1921 ... ... —
(*b*) Under the School Attendance Byelaws ... ... —

SECONDARY SCHOOLS:

(1) Average number of visits per school made during the year by the School Nurses ... ... 16·3

(2) Total number of examinations of children in the Schools by the School Nurses 4749

(3) Number of individual children found unclean 17

(4) Number of children cleansed under arrangements made by the Local Education Authority 5

(5) Number of cases in which legal proceedings were taken—

(*a*) Under the Education Act, 1921 ... ... —
(*b*) Under the School Attendance Byelaws ... ... —

SPECIAL SCHOOLS:

(1) Average number of visits per school made during the year by the School Nurses ... ... 76·8

(2) Total number of examinations of children in the schools by the School Nurses 13994

(3) Number of individual children found unclean 334

(4) Number of children cleansed under arrangements made by the Local Education Authority 20

(5) Number of cases in which legal proceedings were taken—

(*a*) Under the Education Act, 1921 ... ... —
(*b*) Under the School Attendance Byelaws ... ... —

NURSERY SCHOOLS:

(1) Average number of visits per school made during the year by the School Nurses ... ... 41·2

(2) Total number of examinations of children in the schools by the School Nurses 8861

(3) Number of individual children found unclean 436

(4) Number of children cleansed under arrangements made by the Local Education Authority 22

(5) Number of cases in which legal proceedings were taken—

(*a*) Under the Education Act, 1921 ... ... —
(*b*) Under the School Attendance Byelaws ... ... —

TABLE V. PREVIOUS MEDICAL HISTORY.

ENTRANTS.

Number examined :— Males 2260, Females 2129 ; Total ... 4389	Three Years				Four Years				Five Years				Six Years			
	Males 191		Females 154		Males 510		Females 472		Males 1079		Females 1041		Males 480		Females 462	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Measles	71	37·2	112	72·7	267	52·4	254	53·8	623	57·7	616	59·2	294	61·3	297	64·3
Whooping Cough ...	44	23·0	38	24·7	147	29·0	163	34·5	474	43·9	360	34·6	190	39·6	207	44·8
Scarlet Fever ...	6	3·1	6	3·9	31	6·1	25	5·3	77	7·1	74	7·1	42	8·8	42	9·1
Diphtheria	2	1·0	2	1·3	3	0·6	5	1·1	24	2·2	18	1·7	12	2·5	9	1·9
Mumps	5	2·6	5	3·2	14	2·7	24	5·1	56	5·2	56	5·4	43	9·0	44	9·5
Chicken Pox... ...	38	19·9	29	18·8	111	21·8	111	23·5	223	20·7	246	23·6	128	26·7	141	30·5
Vaccinia	26	13·6	26	16·9	107	21·0	118	25·0	262	24·3	235	22·6	109	22·7	95	20·6
Typhoid Fever ...	1	0·5	—	—	1	0·2	—	—	—	—	—	—	—	—	1	0·2
Pneumonia	14	7·3	9	5·8	26	5·1	35	7·4	91	8·4	62	6·0	54	11·3	51	11·0
Bronchitis	22	11·5	16	10·4	43	8·4	39	8·3	116	10·8	118	11·3	72	15·0	73	15·8
Rheumatism ...	—	—	—	—	3	0·6	1	0·2	2	0·2	5	0·5	3	0·6	5	1·1
Tuberculosis... ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE VI. AVERAGE HEIGHTS AND WEIGHTS.

Age	Total Number Examined		Leavers, Intermediates and Other Ages				Candidates for Junior Scholarships				Secondary School Children			
	Males	Females	Males		Females		Males		Females		Males		Females.	
			Height C.M.	Weight Kilos.	Height C.M.	Weight Kilos.	Height C.M.	Weight Kilos.	Height C.M.	Weight Kilos.	Height C.M.	Weight Kilos.	Height C.M.	Weight Kilos.
8	1757	1661	121·8	24·5	122·6	24·3	—	—	—	—	—	—	—	—
9	496	416	125·6	26·7	125·7	25·6	—	—	—	—	—	—	—	—
10	630	516	132·4	31·0	130·9	28·8	134·6	30·3	134·8	30·1	—	—	—	—
11	642	457	134·5	31·3	136·3	31·8	138·2	31·9	136·4	31·3	140·3	33·3	141·0	34·2
12	1227	1171	138·1	34·3	142·3	35·1	139·5	32·4	142·6	34·9	142·9	35·4	144·7	36·6
13	603	645	142·5	36·4	145·1	37·9	—	—	—	—	147·4	38·5	151·0	42·5
14	488	416	144·7	38·7	148·2	41·7	—	—	—	—	155·8	45·1	154·5	45·4
15	413	384	—	—	—	—	—	—	—	—	161·1	49·5	156·9	49·8
16	154	133	—	—	—	—	—	—	—	—	166·0	53·7	161·2	54·5
17 and over	115	85	—	—	—	—	—	—	—	—	173·9	60·8	163·7	56·9

TABLE VII.

AVERAGE HEIGHTS AND WEIGHTS. ENTRANTS.

Age	Number Examined		Males		Females	
	Males	Females	Height C.M.	Weight Kilos.	Height C.M.	Weight Kilos.
3	191	154	94·6	16·5	93·8	15·0
4	510	472	101·0	17·3	98·5	16·4
5	1079	1041	107·1	18·5	105·8	17·9
6	480	462	109·6	19·5	110·4	19·5
7	237	211	122·5	24·2	120·0	22·9

AVERAGE HEIGHTS AND WEIGHTS. NURSERY CHILDREN.

Age	Number examined		Males		Females	
	Males	Females	Height C.M.	Weight Kilos.	Height C.M.	Weight Kilos.
2	89	79	82·2	12·8	84·9	12·4
3	90	63	94·7	14·8	92·1	14·3
4	55	43	96·9	16·4	98·7	16·1
5	8	9	102·0	17·7	101·1	14·3

TABLE VIII.

PARENTS PRESENT AT MEDICAL INSPECTION.

Group	MALES			FEMALES		
	Number of Children Examined	Number of Parents Present	Percentage of Parents Present	Number of Children Examined	Number of Parents Present	Percentage of Parents Present
Entrants ...	2260	1786	79·0	2129	1758	82·6
Intermediates	2253	1479	65·6	2077	1506	72·5
Leavers ...	1051	325	30·9	1096	561	51·2
Other Ages	492	290	59·0	476	334	70·2
Junior Scholarships...	829	624	75·3	660	594	90·0
Secondary Schools ...	2284	38	1·7	1949	474	24·3
Totals ...	9169	4542	49·5	8387	5227	62·3

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