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County Borough of Halifax
Health Department

ANNUAL REPORT

ON THE HEALTH *of the* BOROUGH

FOR THE 52 WEEKS ENDED DECEMBER 28, 1912

Printed by Order of
the Health Committee.

1913.

Messrs. Edward Mortimer, Printers, Regent Street,
Halifax.


Sigillum Communitatis Burgensium de Tuttle

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Staff of the Health Department.

JAS. T. NEECH, M.A., D.P.H.,
Medical Officer of Health, Superintendent of the Borough Fever Hospital, and Chief Tuberculosis Officer.

D. M. TAYLOR, M.A., M.D., D.P.H.,
Assistant Medical Officer of Health, and Clinical Tuberculosis Officer.

J. A. DEWHIRST, F.I.C., F.C.S., Public Analyst.

DAVID TRAVIS, A.R.S.I., F.S.I.A.,
Chief Sanitary Inspector and Scavenging Superintendent.

J. POLLARD, M.R.C.V.S., D.V.S.M.,
Veterinary and Meat Inspector.

J. E. FIRTH. R. PICKARD. F. TEAL.
J. G. WALSHAW.
District Sanitary Inspectors.

T. FEARNLEY, Shops Inspector.

ALICE M. THOMPSON, C.M.B., Lady Health Visitor.

E. WILCOX, Tuberculosis Nurse.

R. TRAVIS., Assistant Scavenging Superintendent.

J. W. JACKSON, Chief Clerk.

CHARLES CARLTON. ERNEST JUBB.
Assistant Clerks.

M. ROBISON, Matron of the Borough Hospital.

W. GUEST, Laundry Engineer and Disinfector.

A. GREENWOOD, Porter.

Goux Department.

D. TYSON, Yard Foreman.

J. HEATH, H. DAWRANT,
Goux Inspectors.

HARRY ASKE, Clerk.

H. LEAPER, Assistant Clerk.

Health Committee.

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ALDERMAN T. HEY, J.P., *Chairman.*

COUNCILLOR J. ASQUITH, *Vice-Chairman.*

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,, G. T. RAMSDEN.	,, W. M. BRANSON, L.R.C.P.
Councillor R. HODGSON.	,, T. N. HELLIWELL.
,, J. REDMAN.	,, C. H. SMITHSON.
,, A. D. OATES.	,, A. TAYLOR, J.P.

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Appointed by the Health Committee.

Hospital Sub-Committee.

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ALDERMAN COE.
,, RAMSDEN.
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COUNTY BOROUGH OF HALIFAX.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

JAS. T. NEECH, M.D., D.P.H.

FOR THE YEAR 1912.

INTRODUCTION.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I have the honour of presenting to you my 13th Annual Report on the health of the Borough of Halifax, which is the Fortieth Annual Report of the Medical Officer of Health for the year ending December 31st, 1912.

The following Report I consider is a very satisfactory one in many respects. The general deathrate, though not the lowest on record, is below the average. There was considerably less infectious disease in the Borough, and the Zymotic deathrate is the lowest ever recorded. The Phthisis deathrate was satisfactory, also that from Respiratory diseases, the latter being, with one exception, the lowest on record. The infant mor-

tality was highly satisfactory, viz.:—81 per 1,000, and is much below anything that has ever been previously recorded.

There were no changes in the staff during the year, but there was an addition thereto of a tuberculosis nurse, in the person of Miss Eva Wilcox, who was appointed in August last, and a Shops Inspector.

In conclusion, I desire to acknowledge the assistance rendered me by Mr. Travis, and the District Sanitary Inspectors, as well as Messrs. Jackson & Carlton. I have also to acknowledge the generous support of your Committee during the year.

I am,

Gentlemen,

Your obedient Servant,

Jas. J. Keech M.D. D.P.H.

MEDICAL OFFICER OF HEALTH.

TOWN HALL,

HALIFAX,

June 18th, 1913.

STATISTICAL SUMMARY.

	1912	1911
	ACRES	
Area of County Borough ...	13,650	...
Rateable Value	£495,040	£490,285
Population, estimated to middle of 1912	101,500	...
Population, 1911 Census ...	101,556	...
Persons per Acre	7·4	7·4
Average number of Persons per Inhabited House, 1911 Census...	3·92	...
Average number of Persons per House, 1911 Census ...	3·65	...
Birth Rate	18·0	18·3
,, Average for previous 10 years	19·7	20·1
Death Rate	15·5	16·0
,, Average for previous 10 years	15·3	15.4
,, Corrected for Institutions	14 7	15·3
Death Rate for seven principal Zymotic Diseases ...	·49	1·4
Death Rate, the mean for previous 10 years of Zymotic Diseases	1·0	·9
Deaths of Infants under 1 year per 1000 Births	81	123
Illegitimate Births... ...	110	81
Average Age at Death, Males	46·3 years	42·2 years
Average Age at Death, Females	51·6 years	45·6 years
Latitude—North	50° 43′	...
Longitude—West	1° 52′	...
Height above Sea Level, feet...	625	...
Total Rainfall, inches ...	44·04	29·01

Area and Population of the Borough.

Halifax was one of the few large towns in the Country which at the last Census showed a considerable decrease in population compared with the previous Census. Since then, however, I am of opinion that this decrease has not continued, but that on the contrary, there has been a slight increase. There are now more houses occupied than during 1911, and the number of Burgesses have increased by 444. I am therefore of opinion that the population of Halifax to-day is over 102,000. In this report however, the various rates have been calculated on a estimated population of 101,500, which practically corresponds to the number of inhabitants, as shown by the last Census returns.

The Borough is divided into 15 wards, and has an area of 13,650 acres. The area, population, &c., of the wards, are set out in the following table.

WARDS	Population Estimated to Middle of 1912	Acreage	Persons per Acre	Number of Houses Built during 1912
Ovenden	6600	531	12·4	...
Akroydon	6075	582	10·4	9
North	7610	168	45·3	...
Central	7100	82	86·5	...
West	8490	86	98·7	...
South	7360	296	24·8	12
East	6140	191	32·1	...
Southowram... ...	6930	777	8·9	5
Skircoat	10675	513	20·8	37
Copley	3060	532	5·7	6
Pellon	8975	241	37·2	3
Kingston	10080	238	42·3	10
Illingworth	6511	4504	1·4	4
Northowram... ...	3139	1555	2·0	...
Warley	2755	3354	·8	1
Totals	101500	13650	...	87
Average... ...	...	...	7·4	...

Marriages.

There were 1,045 marriages solemnised within the Borough during the year 1912, compared with 1072 during the previous year, and this gives a rate of 10·2 against 10·5 during the previous year, or a decrease of ·3 per 1,000.

the marriage rate for 1912 was below that of 1910 and 1911, but is equal to the average of the past five years.

The marriage rate of Halifax is remarkably low, compared with many other large towns, although the year under review is an improvement upon the marriage rates for the years 1902 to 1908.

The following table serves to compare the marriage rate of Halifax with that of England and Wales for the past 16 years.

YEAR	Marriage Rate	
	Halifax	England & Wales
1897	15 9	16·0
1898	10·4	16·2
1899	12·3	16·5
1900	11·2	16·0
1901	10·5	15·9
1902	9·9	15·9
1903	9·7	15·8
1904	9·9	15·2
1905	10·1	15·2
1906	9·9	15·6
1907	10·4	15·7
1908	9·8	14·9
1909	9·6	14·5
1910	10·9	14·7
1911	10·5	15·1
1912	10·2	15·4

The above table shows how unfavourably the marriage rate of Halifax compares with the average of England and Wales.

The following table shows where the marriages were solemnised.

In Churches of Church of England	574
In Nonconformist places of Worship... ...	309
At Register Office	162
Total	1045

Births.

During 1912 there were 1,841 births registered in Halifax, but 15 of these belonged to outside districts. There occurred also 2 births outside the Borough belonging thereto. By subtracting the 15 births which occurred belonging to outside districts, and adding thereto the 2 belonging to the Borough, there were 1,828 births, or a decrease of 40 compared with the previous year. Unfortunately therefore there is a slight decrease in the birthrate for the year under review.

The 1,828 births give a birthrate for the year of 18·0 per 1,000, compared with 18·3 for the year 1911.

Of the registered births there were 914 males, and an equal number of females.

The decreased number of deaths during the year under review has increased the excess in the number of births over deaths, and the following table compares these figures for the past 12 years.

Year	Births	Deaths	Excess of Births over Deaths
1901	2351	1709	642
1902	2225	1634	591
1903	2248	1592	656
1904	2154	1643	511
1905	2072	1618	454
1906	2070	1674	396
1907	1927	1558	369
1908	2118	1561	557
1909	1840	1552	288
1910	1860	1431	429
1911	1868	1554	314
1912	1828	1495	333
Average ...	2046	1585	461

The birthrates in the country generally have been gradually falling, but the fall in Halifax has been more rapid than in most of the great towns.

The birthrate of the country generally has been falling during the past 30 years, and the following table serves to compare the birthrate of England and Wales with Halifax, in quinquennial periods, since the year 1875.

Period	England and Wales	Halifax	Difference
1875-9	35·3	35·7	+ 0·4
1880-4	33·8	30·7	— 3·1
1885-9	31·4	28·0	— 3·4
1890-4	30·7	25·4	— 5·3
1895-9	29·7	23·1	— 6·6
1900-4	28·4	21·7	— 6·7
1905-9	26·5	19·4	— 7·1
1910-2	24·3	18·1	— 6·2

There were 110 illegitimate births registered during the year, against 81 during the previous year. This is the highest number of illegitimates since 1908, and with the exception of that year, and 1904, it is the highest number registered in one year since 1884.

The following table shows the number of illegitimate births registered during the past 40 years, and the rate per cent. these births bear to the total number of births registered.

Year.	Number of Illegitimate Births.	Rate per cent. to whole Number of Births.	Average
1873	101	4·2	
1874	123	5·0	
1875	104	4·2	
1876	121	4·4	4·5
1877	116	4·6	
1878	No Record		
1879	108	4·6	
1880	118	4·8	
1881	113	4·8	
1882	105	4·6	
1883	86	3·9	
1884	130	5·7	4·5
1885	101	4·5	
1886	90	3·9	
1887	103	4·5	
1888	96	4·2	
1889	99	4·5	
1890	77	3·2	
1891	51	2·3	
1892	78	2·3	2·9
1893	73	3·2	
1894	73	3·4	
1895	51	2·3	
1896	65	2·7	
1897	44	2·0	
1898	58	2·6	
1899	58	2·5	
1900	75	3·2	4·7
1901	101	4·2	
1902	89	4·0	
1903	102	4·5	
1904	113	5·2	
1905	97	4·6	
1906	99	4·7	
1907	84	4·3	
1908	120	5·6	4·9
1909	83	4·5	
1910	102	5·4	
1911	81	4·3	
1912	110	6·0	

From the above table it will be observed that the period during the 10 years extending from 1890 to 1899 the percentage of illegitimate births was at its lowest

point, it having fallen considerably when compared with the previous 17 years. We have no records dating back further than the year 1873. Since the year 1900 there has been a gradual rise in the percentage of illegitimate births, and during the year under review, that percentage is higher than any recorded since the year 1873.

The average birthrate of the 95 great towns for 1912 was 24·9 per 1,000, and only 8 of these had a lower birthrate than Halifax, viz.:—Hornsey, 15·9; Ilford, 17·6; Hastings, 15·0; Eastbourne, 16·2; Bournemouth, 14·4; Bath, 16·7; Southport, 14·4; Blackpool, 15·9 per 1,000 respectively.

The birthrate of Halifax is considerably below that of the 33 great provincial towns.

The birthrate of England and Wales for 1912 was 23·8, against 24·4 for the previous year, or a decrease of ·6 per 1,000.

The birthrates of the other Yorkshire great towns were, Leeds, 23·2; Sheffield, 27·6; Bradford, 19·4; Hull, 27·7; Huddersfield, 18·9; York, 22·8; and Rotherham, 29·5 per 1,000 respectively.

The number of births and birthrates during each quarter of the year are shown in the following table.

Period	Males		Females		Totals		Birthrate per 1000 living	
	1912	1911	1912	1911	1912	1911	1912	1911
1st Quarter	232	264	235	210	467	474	18·4	18·6
2nd ,, ...	243	256	223	229	466	485	18·3	19·1
3rd ,, ...	214	232	231	231	445	463	17·5	18·2
4th ,, ...	225	220	225	226	450	446	17·7	17·5
Whole Years ...	914	972	914	896	1828	1868	18·0	18·3

The following table gives the birthrates of the different Wards of the Borough during the past 5 years.

WARDS	Birthrates					
	1908	1909	1910	1911	1912	Average
Ovenden	21·6	17·6	18·5	20·4	17·1	19·0
Akroydon... ...	22·3	19·8	18·5	23·3	20·4	20·8
North	25·6	22·9	24·1	23·1	20·3	23·2
Central	22·0	20·9	20·7	20·8	18·7	20·6
West	17·8	16·4	18·4	14·9	18·8	17·2
South	15·6	13·6	12·2	13·0	11·6	13·2
East	16·2	15·8	13·2	14·9	16·4	15·3
Southowram ...	24·7	20·3	25·0	24·0	23·9	23·5
Skircoat	19·5	15·1	17·3	16·6	15·3	16·7
Copley	16·9	21·8	13·0	17·3	18·6	17·5
Pellon	17 7	14·6	15·3	18·0	18·2	16·7
Kingston	17·9	13·1	12·8	16·7	17·2	15·5
Illingworth ...	16·1	15·9	13·2	15·6	17·3	15·6
Northowram ...	25·0	15·5	20·0	21·3	22·3	20·8
Warley	17·9	19·1	15·1	19·6	27·4	19·8

It will be observed from the above table that the birthrate varies from 11·6 in South Ward, to 27·4 per 1,000 in Warley Ward; while the average for 5 years varies between 13·2 in South, and 23·5 in Southowram Ward.

According to information kindly furnished by the Sextons and Caretakers of the burial grounds in the Borough, it appears there were 90 still-born children buried during the year, against 93 during the previous year.

There were 56 still-births notified, against 59 during the previous year, or a decrease of 3,

The number of still-born children buried in each of the burial grounds during the past 2 years is shown in the following table.

Name of Burial Ground	Number of Still-born Children Buried therein	
	1912	1911
Moor End Chapel	0	0
Nursery Lane Wesleyan	0	0
St. George's, Ovenden	0	0
Providence Chapel, Ovenden ...	1	2
Illingworth Church	1	4
Christ Church, Pellon	5	6
Illingworth Wesleyan Chapel ...	0	1
Mount Zion, Ovenden	2	0
Borough Cemetery	21	27
Wesleyan Chapel, Northowram ...	0	0
All Saints' Church	5	4
Heywood Cemetery	2	2
Bradshaw Church	0	0
Mount Tabor Burial Ground ...	0	0
King Cross Wesleyan	7	6
St. Paul's Church, King Cross ...	18	13
All Souls' Cemetery	10	12
Warley Church	1	1
Wesleyan Chapel, Luddenden ...	0	0
Lister Lane Cemetery	4	4
St. Thomas' Church	13	11
Totals	90	93

The number buried during each of the previous 10 years was:—1901, 108; 1902, 86; 1903, 118; 1904, 121; 1905, 113; 1906, 112; 1907, 113; 1908, 101; 1909, 104; 1910, 94.

These figures appear to show that the number of still-births is on the decline.

Deaths.

During the year 1912 there were 1,574 deaths registered within the Borough. Of these, 125, which occurred in institutions in the Borough, did not belong to the district.

The following table gives the institutions in which these deaths occurred, and the districts to which they belonged.

	Poor Law Hospital	Infirmary	Stoney Royd Hospital	Other Places
Otley	...	...	...	1
Luddenden Foot ...	1	1	...	...
Greetland	2	4	...	...
Brighouse	22	1	...	...
Southowram	4	3	...	2
Sowerby Bridge ...	17	4	...	3
Sowerby	1	1	...	1
Wadsworth	...	2	...	...
Elland	2	5	2	1
Stainland	3	1	2	1
Queensbury	3	1	...	1
Walsden	...	2	...	...
Stockton	...	...	...	1
Hartshead	1	...	...	...
Rastrick	...	1	...	...
Hipperholme ...	3	...	...	...
Bradford	1	...	...	1
Leeds	...	1	...	...
Rishworth	2	1	...	...
Heptonstall	...	1	...	...
Batley	1	...	...	...
Clifton	2	...	...	...
Shelf	...	...	...	1
Heysham	...	...	...	1
Huddersfield ...	...	...	1	...
Soyland	1	1	...	...
Hebden Bridge ...	...	3	...	...
Todmorden	...	1	...	...
Colne	...	...	...	1
Manchester	...	1	...	...
Blackshaw	...	1	...	...
Midgley	2	...	...	...
Barkisland	...	...	1	...
Totals ...	68	36	6	15

In consequence of the arrangement made by the Registrar General, we have now a more complete list of deaths of persons belonging to the Borough which occur in outside districts, and which it is necessary to take into account in arriving at our proper deathrate. The number of such deaths received during the year from the Registrar General was 46, against 53 for the previous year.

The following table shows where these deaths occurred.

Where Death occurred	Number
West Riding Asylums ...	25
Sowerby Bridge	1
Stockport	1
Burton-on-Trent ...	1
Leeds	3
Barnsley	1
Bridlington	1
Southport	2
Huddersfield	1
Wellington	1
Queensbury	1
Liverpool	1
Hipperholme	1
Yeadon	1
Bury	1
Batley	1
Carlton, Notts.	1
Brighouse	2
Total ...	46

In making the necessary adjustment by excluding the deaths in the Borough not belonging thereto, and

including the above, the corrected number of deaths for the year was 1,495, against 1,554 during the previous year.

Of the above 1,495 deaths, 714 were males, and 781 were females, which gives a deathrate for the year of 14·7 per 1,000, or a decrease in that rate of ·6 compared with the deathrate of the previous year.

As the age and sex constitution of the population varies in different towns, and in different parts of the country, the Registrar General prepares a factor, based upon the population of the Country at each Census period, which factor it is necessary to multiply the deathrate with, in order to obtain the deathrate corrected for age and sex constitution.

Dr. Stephenson, of the Registrar's Office, informs me that the factor for correcting the general deathrate of the Borough of Halifax is 1·0239. By multiplying our deathrate with this factor, the deathrate is increased from 14·7 to 15 per 1,000.

Under the circumstances I feel sure that a deathrate of 15 per 1,000 for the past year is too high for Halifax. I am sure we are calculating our deathrate upon apopulation which is less than the population of the Borough for the year 1912, and therefore the deathrate of 14·7 is nearer the mark than the so-called corrected deathrate of 15 per 1,000. Had our deathrate been calculated upon an increase in population, as is usually the case, then the factor would have been necessary in order to arrive at a deathrate which would be comparable with other towns.

The following table shows the deathrates of the Borough during the past 13 years.

Period	Deathrate
1900	18·1
1901	16·2
1902	15·6
1903	15·2
1904	15·8
1905	15·6
1906	16·2
1907	15·1
1908	15·2
1909	15·1
1910	14·0
1911	15·3
1912	14.7

The deathrate of the Borough is ·1 above the average of the 95 great towns, of which 71 have a lower deathrate, but of the latter, 40 have a smaller population.

The deathrates of the other Yorkshire great towns were as follows:—Leeds, 14·2; Sheffield, 14·2; Bradford, 14·4; Hull, 14·4; Huddersfield, 13·6; York, 13·4; and Rotherham, 15·7 per 1,000 respectively.

The following table shows the average deathrate of England and Wales for the undermentioned periods, and compares it with that of Halifax.

Period	Deathrates	
	Halifax	England and Wales
1876-80	23·5	20·9
1881-5	21·1	19·4
1886-90	21·2	18·9
1891-5	17·9	18·7
1896-00	17·5	17·7
1901-5	15·6	16·0
1906-10	15·1	14·6
1911-12	15·0	13·9

The deathrates of the different wards vary from 9·8 in Copley, to 19·7 per 1,000 in East Ward. This variation is shown in the following table, which also gives the density of population in the various wards.

WARDS	Population	Acreage	Persons per Acre	Total Deaths	Death-rate per 1000
Ovenden	6600	531	12·4	88	13·3
Akroydon	6075	582	10·4	98	16·1
North	7610	168	45·3	128	16·8
Central	7100	82	86·5	118	16·6
West	8490	86	98·7	138	16·2
South	7360	296	24·8	90	12·2
East	6140	191	32·1	121	19·7
Southowram ...	6930	777	8·9	105	15·1
Skircoat	10675	513	20·8	130	12·1
Copley	3060	532	5·7	30	9·8
Pellon	8975	241	37·2	115	12·8
Kingston	10080	238	42·3	149	14·7
Illingworth ...	6511	4504	1·4	108	16·5
Northowram ...	3139	1555	2·0	37	11·7
Warley	2755	3354	·8	40	14·5
Totals ...	101500	13650	7·4	1495	14·7

As deathrates fluctuate so much from year to year, the following table shows the average general deathrate of each Ward over a period of 5 years.

WARDS	Deathrates					
	1908	1909	1910	1911	1912	Average
Ovenden ...	15·1	14·6	15·4	15·4	13·3	14·7
Akroydon ...	15·8	16·9	12·0	17·9	16·1	15·7
North	20·5	18·1	18·4	17 3	16·8	18·2
Central... ...	15·9	17·8	14·6	17·4	16·6	16·4
West	16·7	15·4	14·8	16·0	16·2	15·8
South	15·4	15·1	14·6	14·9	12·2	14·4
East	17·0	17·1	21·0	20·7	19·7	19·1
Southowram ...	15·2	13·9	13·7	17 3	15·1	15·0
Skircoat ...	11·7	10·8	8·8	10·9	12·1	10·8
Copley	9·0	6·5	11·8	12·4	9·8	9·9
Pellon	10·9	11·2	11·8	12·4	12·8	11·8
Kingston ...	12·0	13·8	9·7	12·5	14·7	12·5
Illingworth ...	13·8	14·4	10·8	17·0	16·5	14·5
Northowram ...	14·6	14·9	12 0	15·6	11·7	13·7
Warley	12·7	12·7	9·4	14·1	14·5	12·6

From the above table it will be observed that East Ward, as usual, has the highest average deathrate. Undoubtedly the fact that nearly all the Common Lodging Houses are situated in this Ward, may have something to do in helping to swell this deathrate, because a number of deaths occur in the Poor Law Institutions, of persons drafted from these lodging houses.

Copley has the lowest average deathrate, being 9·9 per 1,000, and is followed very closely by Skircoat and Pellon.

The following table shows the total number of deaths of each sex which occurred in the Borough, the total ages lived, and the average age at death during the past 17 years.

MALES				FEMALES			
	Deaths	Total Years	Average Ages		Deaths	Total Years	Average Ages
0-1	79	79	...	0-1	70	70	...
1-2	14	20	1·4	1·2	20	27	1·3
2-5	24	68	2·8	2-5	14	39	2·7
5-15	19	155	8·1	5-15	22	211	9·5
15-25	33	655	19·8	15-25	25	510	20·4
25-45	93	3286	35·3	25-45	88	3110	35·3
45-65	245	13571	55·3	45-65	209	11606	55·5
65 and upwards	207	15257	73·7	65 and upwards	333	24798	74·4
Total .. 1912.	714	33091	46·3	Total... 1912.	781	40371	51·6
1911	Average		42·2	1911	Average		45·6
1910	,,		42·3	1910	,,		47·1
1909	,,		42·0	1909	,,		47·3
1908	,,		40·6	1908	,,		44·8
1907	,,		41·4	1907	,,		47·8
1906	,,		39·0	1906	,,		44·9
1905	,,		38·6	1905	,,		44·1
1904	,,		37·5	1904	,,		41·2
1903	,,		40·0	1903	,,		43·3
1902	,,		36·6	1902	,,		40·2
1901	,,		36·2	1901	,,		40·1
1900	,,		38·3	1900	,,		41·2
1899	,,		35·1	1899	,,		38·4
1898	,,		34·4	1898	,,		38·2
1897	,,		35·3	1897	,,		37 9
1896	,,		35·5	1896	,,		38·4

It will be observed that the average age at death was considerably higher, especially in the case of females, during 1912, than during the previous year. The cause of this was the low infant mortality during the year, and the large number of persons who died above 65 years of age. There was also considerably less infectious disease during the past year, consequently a smaller number of persons under 15 died than usual.

Zymotic Deathrate.

The deathrate from the seven principal Zymotic diseases for the year 1912 was the lowest ever recorded in the Borough From these diseases there died 61 persons during 1912, against 144 during the previous year. This gives a deathrate of ·6 per 1,000, against 1·41 for the previous year.

It appears that the Registrar General, commencing with the year under review, now excludes from the Zymotic deathrate all those deaths from diarrhœa and enteritis occurring in persons over two years of age. There were 11 of such deaths in Halifax during 1912, consequently it is necessary to exclude these from the above number of Zymotic deaths, as this is the only method which will enable a comparison to be made of our Zymotic deathrate with that of other towns.

Excluding the above, a total of 50 Zymotic deaths occurred within the Borough during the year, which gives a deathrate of ·49 per 1,000.

Halifax comes out very favourably in comparison with the 44 great towns of England with regard to its Zymotic deathrate, as only one town, viz.:—Brighton,

had a lower rate than Halifax. The Zymotic rate of Brighton for 1912 was ·44 per 1,000.

The Zymotic deathrate of the other Yorkshire great towns was as follows:—Leeds. 1·03; Sheffield, 1·35; Bradford, ·71; Huddersfield, ·82; Hull, 1·10; York, .84; and Rotherham, 2·39 per 1,000 respectively.

It will be observed therefore that Halifax had a much lower Zymotic deathrate than any of the other Yorkshire great towns.

The following table compares the deathrates from the principal Zymotic diseases during 1912 in England and Wales, and Halifax.

	Deathrate from						
	Small-pox	Measles	Scarlet Fever	Diph-theria	Whoop-ing Cough	Fever	Diarrhœa and Enteritis (under 2 years of age)
England and Wales...	0·00	0 35	0·05	0·11	0·23	0·04	8·53
95 Great Towns ...	0·00	0·47	0·06	0·13	0·26	0·04	10·88
146 Smaller Towns ...	0·00	0·35	0·05	0·11	0·24	0·05	8·03
England and Wales, less the 241 towns...	0·00	0 20	0·04	0·10	0·17	0·04	5·54
Halifax	0·00	0·14	0 07	0·05	0·07	0·03	4·92

In this report the above table has been altered in accordance with the arrangement of the Registrar General, and the 11 deaths from diarrhœa and enteritis in persons below 2 years of age are shown therein, but these deaths are calculated, not upon the basis of population, but like the infant deathrate, upon the number of children born.

From the above table it will be observed that the Zymotic deathrate of the Borough compares very favourably with that of the country generally.

The following table compares the Zymotic deathrate of Halifax with the average rate of the 33 great towns.

	33 Great Towns	Halifax
Seven Zymotic Diseases ...	1·21	·49
Smallpox	·001	·00
Measles	·47	·14
Scarlet Fever	·06	·07
Whooping Cough	·24	·07
Typhoid Fever	·05	03
Diarrhœa and Enteritis ...	·25	·08
Diphtheria	·14	·05

The following table gives the number of Zymotic deaths, and the deathrate of each Ward, during the year under review.

WARDS	Small-pox	Measles	Scarlet Fever	Diph-theria	Whooping Cough	Fever	Diarr-hœa and Enteri-tis (under 2 years)	Zymotic Death-rate per 1000
Ovenden ...	...	1	...	...	...	...	1	0·3
Akroydon ...	...	3	1	...	1	...	...	0·8
North ...	...	2	1	...	...	2	...	0·6
Central ...	...	2	...	...	1	...	1	0·5
West ...	...	1	1	...	1	...	1	0·4
South ...	...	...	...	...	...	...	...	0·0
East ...	...	2	...	...	...	1	1	0·6
Southowram ...	...	2	2	2	1	...	2	1·2
Skircoat ...	...	...	...	...	...	...	1	0·09
Copley ...	...	...	...	...	...	...	...	0·0
Pellon ...	...	...	1	1	1	1	...	0·4
Kingston ...	...	...	1	3	...	...	..	0·3
Illingworth ...	...	1	1	...	2	...	2	0·9
Northowram ...	...	...	...	...	...	...	...	0·0
Warley ...	...	1	...	...	1	...	...	0·7
Totals ...	...	15	8	6	8	4	9	avg·49

On referring to the above table it will be observed that Southowram had the highest Zymotic deathrate, viz:—1·2 per 1,000, whereas in South, Copley, and Northowram, not a single Zymotic death occurred during the year.

It is very unusual for three Wards to remain a year without any Zymotic deaths.

The following table gives the Zymotic deathrates of the various Wards during the past five years, together with the average for each Ward.

WARDS	ZYMOTIC DEATHRATE					
	1908	1909	1910	1911	1912	Average
Ovenden ...	0·8	0·6	2·1	1·2	0·3	1·0
Akroydon ...	1·9	2·6	0·4	2·6	0·8	1·6
North	3·0	1·6	1·4	2·2	0·6	1·7
Central	0·4	0·4	1·0	1·5	0·5	0·7
West	1·2	0·8	0·4	2·7	0·4	1·1
South	0·1	0·1	0·4	0·9	0·0	0·3
East	1·7	0·8	1·0	1·2	0·6	1·0
Southowram ...	1·9	1·2	0·6	2·5	1·2	1·4
Skircoat ...	0·9	0·5	0·1	0·8	·09	0·4
Copley	1·5	0·0	1·2	0·9	0·0	0·7
Pellon	0·8	0·2	0·4	0·4	0·4	0·4
Kingston ...	0·2	0·6	0·5	0·6	0·3	0·4
Illingworth ...	0·7	0·4	0·0	0·9	0·9	0·5
Northowram ...	0·2	0·2	0·8	0·9	0·0	0·4
Warley	0·3	0·6	0·0	1·4	0·7	0·6

There has been a marked fall in the average Zymotic deathrate of the Borough, as the following table will show.

Period	Deathrate
1877-81	2·50
1882-6	1·55
1887-91	1·43
1892-6	1·33
1897-01	1·40
1902-6	1·02
1907-11	·90

Owing to the alterations made by the Registrar General in calculating the Zymotic deathrate, by excluding deaths from diarrhœa and enteritis over two years of age, the Zymotic deathrate for 1912 cannot be included for comparison in the above table. The Zymotic deathrate for 1912 was ·49 per 1,000.

Infantile Mortality.

Owing a certain extent to the wet summer of last year, I have to report a very low infantile deathrate for the year under review. There died only 149 infants under one year of age, against 231 during the previous year, and this corresponds to an infant mortality of 81 deaths per 1,000 births, against 123 for the previous year. This is the lowest infantile deathrate that has ever been recorded in the Borough.

The average infant deathrate of the different Wards of the Borough varies considerably, even if the average rate for a period of 5 years be taken.

In Northowram, South, and Skircoat, the infant deathrates were 61, 62, and 54 respectively per 1,000 born; whilst in East, North, and Central, the average was as high as 159, 147, and 146 respectively. These latter figures are far too high, and the attention of the Lady Visitors of the Public Health Association should be specially directed towards these Wards.

The following table gives the number of births, birthrates, the number of death of infants, and the mortality per 1,000 births, for each ward of the Borough.

WARDS	Number of Births	Birthrates	Number of Deaths under 1 year	Mortality per 1000 Births
Ovenden ...	113	17·1	11	97
Akroydon ...	124	20·4	11	88
North ...	155	20·3	18	116
Central ...	133	18·7	19	142
West ...	160	18·8	11	68
South ...	86	11·6	3	34
East ...	101	16·4	14	138
Southowram ...	166	23·9	11	66
Skircoat ...	164	15·3	8	48
Copley ...	57	18·6	2	35
Pellon ...	164	18·2	13	79
Kingston ...	174	17·2	13	74
Illingworth ...	113	17 3	9	79
Northowram ...	70	22·3	4	57
Warley ...	48	27·4	2	41
Totals ...	1828	18·0	149	81

The following table shows the causes of death of infants under one year of age for the period under review.

CAUSE OF DEATH.		Under 1 Week	1-2 Weeks
All Causes.	Certified	49	8
	Uncertified	...	...
Common Infectious Diseases.	Small-pox	...	...
	Chicken-pox	...	...
	Measles	...	...
	Scarlet Fever	...	...
	Diphtheria (including Membranous Croup) ...	...	...
	Whooping Cough	...	...
Diarrhœal Diseases.	Diarrhœa, all forms ...	...	...
	Enteritis	...	...
Tuberculous Diseases.	Tuberculous Meningitis ...	...	...
	Tuberculous Peritonitis : Tabes Mesenterica ...	...	...
	Other Tuberculous Diseases	...	...
Wasting Diseases.	Congenital Malformations ...	1	2
	Premature Birth	25	5
	Atrophy, Debility, Marasmus	9	...
Other Causes.	Atelectasis	3	...
	Injury at Birth	3	...
	Erysipelas	...	...
	Syphilis	...	...
	Rickets.....	...	...
	Meningitis *(not Tuberculous)*	...	...
	Convulsions	3	...
	Gastritis	...	...
	Laryngitis	...	...
	Bronchitis	1	...
	Pneumonia (all forms) ...	...	...
	Suffocation, overlying ...	1	...
	Other causes	3	1
		49	8

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 One Year
10	3	70	26	23	18	11	148
...	...	...	1	...	...	...	1
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	1	1	2
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	1	...	...	1	2
...	...	...	2	...	...	...	2
...	...	...	4	1	1	...	6
...	...	...	...	...	2	1	3
...	...	...	...	...	...	1	1
...	...	...	...	...	1	...	1
1	...	4	...	1	1	...	6
7	...	37	5	...	...	...	42
2	1	12	4	3	...	...	19
...	...	3	...	...	...	...	3
...	...	3	...	...	...	...	3
...	...	...	...	...	...	...	...
...	...	...	2	3	...	...	5
...	...	...	...	...	...	1	1
...	...	...	2	...	1	1	4
...	...	3	...	2	1	...	6
...	...	...	1	...	...	...	1
...	...	...	...	...	...	...	...
...	1	2	4	3	3	1	13
...	...	...	...	5	5	4	14
...	...	1	2	...	...	...	3
...	1	5	...	5	2	...	12
10	3	70	27	23	18	11	149

I notice two more deaths were recorded under the heading of Atrophy, Debility, and Marasmus, than during the previous year. It is satisfactory to note that the number of deaths under this heading is now little more than half what it was 5 or 6 years ago.

There were 110 illegitimate births, and 13 deaths under one year of age during the year, which gives an illegitimate infant mortality of 118 per 1,000 born, against 86 during the previous year.

The following table shows the causes of death of the illegitimate infants

Disease	Age at Death
	Under 1 year
Malnutrition	2
Congenital Defects ..	1
Premature Birth ...	2
Injury at Birth ...	1
Debility	1
Bronchitis	2
Suffocation, Overlaying	1
Tuberculous Enteritis	1
Congenital Syphilis ...	1
Atelectasis	1

I have already pointed out the fact that the infant mortality of the various Wards differs considerably. The following table shows this and also the birthrates of each Ward during the past five years.

WARDS	Deaths under 1 Year to 1000 Births Registered						Average Birthrate during the past five years
	1908	1909	1910	1911	1912	Average	
Ovenden ...	93	106	57	103	97	91	19·0
Akroydon ...	86	120	39	77	88	82	20·8
North ...	154	127	149	193	116	147	23·2
Central ...	154	114	111	209	142	146	20·6
West ...	138	121	88	173	68	117	17·2
South ...	103	69	54	52	34	62	13·2
East ...	131	126	220	184	138	159	15·3
Southowram	95	108	102	149	66	104	23·5
Skircoat ...	80	66	35	44	48	54	16·7
Copley ...	92	57	93	94	35	74	17·5
Pellon ...	56	61	54	111	79	72	16·7
Kingston ...	81	125	111	112	74	100	15·5
Illingworth	104	87	50	117	79	87	15·6
Northowram	59	76	58	59	57	61	20·8
Warley ...	56	52	177	111	41	87	19·8

In a previous annual report I called attention to the considerable fall which had occurred in the infant death-rate of East Ward. This improvement was maintained even during the year 1910, notwithstanding the abnormal conditions of that summer, and I am glad to be again able to report a further fall in the infant deathrate of this Ward for the year under review. This Ward, as will be seen from the above table, still however shows the highest average infant mortality, viz. :—159. North comes next with 147, and then Central with 146 per 1,000 respectively.

The following table shows the number of deaths which took place in the Borough from some of the chief infantile diseases, and gives the deathrates therefrom of each disease per 1,000 of the population.

DISEASES	Number of Deaths under 1 year					Rate per 1000 of Population				
	1908	1909	1910	1911	1912	1908	1909	910	1911	1912
From all causes ..	216	183	166	231	149	2·00	1·69	1·53	2·27	1·46
Respirat'ry Diseas's	36	21	23	39	27	·33	·19	·21	·38	·26
Premature Birth ...	36	37	45	44	42	·33	·34	·41	·43	·41
Diarrhœa and Enteritis	7	5	5	45	8	·06	·04	·04	·44	·07
Whooping Cough	10	6	8	9	2	·09	·05	·07	·08	·01
Convulsions ...	18	20	6	10	6	·16	·18	·05	·09	·05
Scrofula, Tuberculosis ..	4	6	7	9	5	·03	·05	·06	·08	·04
Measles	37	1	2	2	2	·34	·009	·01	·01	·01

On referring to the above table it will be observed that there has been a satisfactory fall in most of the above deathrates.

The following table serves to compare the average infant mortality of England and Wales, the great towns, &c., with that of Halifax for the past two years.

	Deaths under 1 year per 1000 Births	
	1911	1912
England and Wales	130	95
95 Great Towns	140	101
146 Smaller Towns	133	98
England and Wales less the 241 Towns	118	86
Halifax	123	81

It will be observed from the above table that the infant mortality of Halifax compares most favourably with the rest of the country, being lower even than the average of Rural England.

The infant mortality of the other Yorkshire great towns was as follows:—Leeds, 101; Sheffield, 106; Bradford, 99; Hull, 101; Huddersfield, 96; York, 95; and Rotherham, 120 respectively.

The following table compares the average infant mortality in quinquennial periods from 1875 to the present time, of the Borough, with that of England and Wales.

Period	Halifax	England and Wales
1875-9	173	145
1880-4	161	141
1885-9	158	142
1890-4	163	148
1895-9	154	157
1900-4	132	143
1905-9	109	121
1910-12	97	110

The above table shows that 35 years ago, the infantile deathrate of the Borough was considerably above that of the average of the Country, while now, the rate for the Borough is well below it.

The following table shows the average infant mortality of 36 of the largest towns of the Country, having a population of 100,000 and upwards, and it will be seen that only two have a lower average than that of Halifax, viz.:—Brighton and Croydon.

36 Large Towns	Deaths under 1 year to 1,000 Births Registered.					
	1908	1909	1910	1911	1912	Average
Burnley	200	156	168	210	145	175
Middlesborough..	159	158	144	169	125	151
Preston	154	136	158	172	123	148
Rhondda	183	129	136	164	128	148
Blackburn ...	150	126	136	188	118	143
Stockport ...	167	132	137	170	107	142
Nottingham ...	145	150	128	162	117	140
Liverpool ...	141	144	140	154	125	140
Salford	153	141	130	149	128	140
Manchester ...	151	134	131	154	121	138
Birmingham ...	145	134	130	164	112	137
Oldham	160	119	127	160	117	136
Sunderland ...	146	135	129	151	115	135
Bolton	149	128	117	163	98	131
Gateshead ...	149	112	151	136	103	130
Leeds	138	122	132	158	101	130
Hull	145	114	135	155	101	130
South Shields ...	134	137	113	147	106	127
Sheffield	140	118	127	140	106	126
Leicester... ...	131	127	126	132	110	125
Plymouth ...	129	131	114	145	107	125
Bradford	143	116	127	138	99	124
Birkenhead ...	135	123	135	134	97	124
Newcastle ...	136	119	121	136	101	122
Wolverhampton ..	132	138	107	135	88	120
Cardiff	125	103	111	135	110	116
Norwich	115	119	103	135	104	115
Bristol	126	100	90	141	103	112
London	113	107	102	128	90	108
Huddersfield ...	111	95	99	132	96	106
Derby	112	123	85	123	79	104
Southampton ...	113	106	79	134	85	103
Portsmouth	98	96	104	126	82	101
Halifax	**101**	**99**	**89**	**123**	**81**	**98**
Brighton	104	96	109	98	76	96
Croydon	99	80	88	106	76	89

Comparison of Ward Deathrates.

The following table compares the undermentioned deathrates of the different Wards of the Borough for the year 1912.

WARDS	General Deathrates	Zymotic Deathrates	Respiratory Deathrates	Phthisis Deathrates	Infantile Mortality
Ovenden ...	13·3	·3	2·4	·9	97
Akroydon ...	16·1	·8	1·9	1·1	88
North ...	16·8	·6	3·0	1·0	116
Central ...	16·6	·5	3·3	1·1	142
West ...	16·2	·4	2·3	1·4	68
South ...	12·2	...	2·3	...	34
East ...	19·7	·6	2·9	2·9	138
Southowram ...	15·1	1·2	2·3	1·4	66
Skircoat ...	12·1	·09	2·1	·5	48
Copley ...	9·8	...	1·3	·6	35
Pellon ...	12·8	·4	1·7	·6	79
Kingston ...	14·7	·3	2·2	·9	74
Illingworth ...	16·5	·9	2·9	·4	79
Northowram ...	11·7	...	1·9	1·2	57
Warley ...	14·5	·7	2·9	1·8	41
Average ...	14·7	·49	2·4	1·0	81

From the above table it will be observed that East Ward had considerably the highest general deathrate. This has been invariably the case. Central Ward had the highest respiratory deathrate.

The next table shows the average deathrates from the undermentioned causes for the past 10 years in each Ward.

WARDS	Average Deathrate, 10 years			
	General	Zymotic	Phthisis	Respiratory
Ovenden	14·7	1·1	1·0	2·3
Akroydon	16·0	1·3	·7	2·4
North	17·4	1·5	1·4	3·3
Central	16·8	·6	1·3	3·2
West	15·0	·7	1·1	2·6
South	14·3	·5	·6	2·3
East	19·9	1·0	2·0	3·7
Southowram... ...	15·0	1·4	1·0	2·5
Skircoat	12·5	·3	1·0	2·2
Copley	11·7	1·0	·8	1·8
Pellon	12·9	·6	·8	1·8
Kingston	12·0	·4	·9	2·0
Illingworth	14·5	·6	·9	2·6
Northowram... ...	14·3	·8	1·3	2·2
Warley	14·6	·4	1·4	2·2

It will be observed that East Ward has the highest average general deathrate, Phthisis deathrate, and Respiratory deathrate.

The average general deathrate of the Borough for the past 10 years was 15·2 per 1,000, consequently the above table shows that four Wards had a higher average rate than that of the Borough Copley and Kingston had the lowest average rates, while the averages for Pellon and Skircoat must be considered very satisfactory.

The following table serves to compare the death-rates from some of the chief diseases of the 3 Wards having respectively the highest and lowest deathrates during the past five years.

WARDS	Average Deathrate per 1000 for 5 years, 1908 to 1912						Total of Average
	Zymotic Diseases	Respiratory Diseases	Phthisis	Heart Diseases	Diseases Brain and Nervous System	Other Tubercular Diseases	
Copley ..	·7	1·5	·7	1·3	·7	·2	5·1
Skircoat ...	·3	1·6	·7	1·3	1·3	·1	5·3
Pellon ...	·4	1·7	·7	1·0	1·2	·3	5·3
Average ...	·4	1·6	·7	1·2	1·0	·2	...
East ...	1·1	3·7	1·6	2·0	1·5	·3	10·2
North ...	1·7	3·2	1·7	1·6	1 7	·2	10·1
Akroydon ...	1·6	2·3	1·1	2·4	1·2	·4	9·0
Average ...	1·4	3·0	1·4	2·0	1·4	·3	...

Notification of Infectious Diseases.

The notification of certain of the more important infectious diseases was made compulsory in the Borough under a Local Act, as far back as the year 1882.

Notifiable infectious disease was much less prevalent in the Borough than during the previous year, there being 340 cases notified, against a total of 501 during the previous year.

The following table shows the total number of cases notified, and the distribution of those cases among the Wards of the Borough and Institutions situated therein.

WARDS	Polio Myelitis	Typhoid Fever	Scarlet Fever	Puerperal Fever	Diphtheria	Erysipelas	Total
Ovenden ...	...	2	5	...	4	7	18
Akroydon ...	...	1	17	...	3	5	26
North	...	5	19	...	2	8	34
Central... ...	...	3	3	...	3	1	10
West	...	4	7	..	6	2	19
South	...	1	8	...	4	2	15
East	...	4	10	1	6	3	24
Southowram ...	...	4	29	...	7	1	41
Skircoat ...	...	3	13	...	8	7	31
Copley	...	...	22	...	2	...	24
Pellon	...	2	13	...	8	2	25
Kingston ...	...	5	16	...	28	4	53
Illingworth ...	...	...	3	...	...	4	7
Northowram ...	1	...	8	...	...	...	9
Warley	...	1	3	...	...	...	4
Total, 1912	1	35	176	1	81	46	340

PUBLIC INSTITUTIONS (which are included in the above).

Royal Infirmary...	...	4	...	...	...	2	6
Poor Law Hospital	...	2	2	...	...	4	8
Girls' Home ...	...	...	1	...	...	...	1

Bi-weekly intimations were sent to the Chief Librarian, of the names and addresses of persons notified as suffering from infectious diseases, and all books found

in infected houses were disinfected before being returned to the libraries.

The following table shows the number of cases of each disease notified during each month of the year under review.

MONTH	Poliomyelitis	Typhoid Fever	Scarlet Fever	Puerperal Fever	Diphtheria	Erysipelas	Total
January	...	4	14	...	22	7	47
February	...	5	11	...	9	4	29
March	...	2	15	...	6	...	23
April	...	1	12	...	10	5	28
May	...	1	25	...	3	2	31
June	...	1	30	...	9	5	45
July	...	3	25	...	5	6	39
August	...	6	10	...	...	6	22
September	1	4	11	...	6	2	24
October	...	3	10	...	7	1	21
November	...	3	7	1	1	5	17
December	...	2	6	...	3	3	14
Totals	1	35	176	1	81	46	340

From the above table it will be observed that cases of Typhoid Fever occurred in the Borough during each month of the year, and that the period of greatest prevalence was during the month of August.

Scarlet fever was most prevalent during May, June, and July, but from August onwards very few cases were reported.

With regard to Diphtheria, January was the period of greatest incidence, the disease being more prevalent during that month than any other. In fact, nearly one-fourth of the whole cases notified were reported during January. No case was reported during the month of August.

The following table shows the number of cases of each disease notified yearly since the year 1883, when compulsory notification was put in force.

Year	Small-pox	Cholera	Typhus Fever	Enteric Fever	Scarlet Fever	Continued Fever	Puerperal Fever	Relapsed Fever	Diphtheria	Erysipelas	Chicken-Pox	Membranous Croup	Polio Myelitis	Total	Rate percentage of population
1883	2	...	2	108	158	43	2	1	14	...	...	...	...	330	·43
1884	1	...	1	69	269	24	4	4	13	...	...	...	...	385	·50
1885	7	...	1	56	214	22	1	...	25	...	...	...	...	326	·42
1886	3	1	...	57	124	7	5	...	59	...	...	...	...	256	·32
1887	1	...	1	66	727	8	7	...	26	...	...	...	...	836	1·05
1888	1	...	1	36	440	16	1	...	29	...	...	...	...	524	·65
1889	2	...	...	94	153	18	1	3	31	...	...	...	...	302	37
1890	..	...	...	67	328	8	8	1	62	...	...	...	...	474	·58
1891	...	1	...	99	429	14	5	2	23	...	...	...	...	573	·68
1892	159	...	1	56	256	9	4	2	71	...	...		...	558	·66
1893	346	5	...	69	150	5	6	...	57	..	...	...	...	638	·69
1894	16	...	...	52	114	3	6	...	43	...	...	...	...	234	·25
1895	..	...	...	58	52	3	4	...	29	...	...	...	...	146	·15
1896	..	...	...	105	44	2	4	...	37	...	...	...	...	192	·20
1897	...		...	78	476	1	8	...	67	...	...	...	...	630	·66
1898	...	...	...	79	626	1	9	...	23	...	...	...	...	738	76
1899	...	...	...	92	762	2	3	...	58	...	...	...	..	917	·93
1900	2	...	5	79	330	1	4	3	41	1	...	...	..	466	·46
1901	3	...	...	67	736	...	1	...	61	15	...	...	...	883	·83
1902	1	..	...	65	452	1	3	...	37	27	...	...	...	586	·56
1903	130	...	...	61	320	2	1	...	50	81	328	1	...	974	93
1904	80	...	...	47	486	...	9	...	80	73	...	...	...	775	·74
1905	49	...	...	50	338	...	6	...	87	54	...	...	...	584	·56
1906	...		...	38	214	...	7	...	158	56	...	...	...	473	·45
1907	...	...	...	60	89	...	7	...	118	36	...	...	.	310	·30
1908	...	...	...	53	186	1	6	...	72	44	...	...		362	·35
1909	...	...	...	44	545	...	4	...	128	45	...	...	...	766	·74
1910	...	...	...	33	237	...	7	...	137	50	...	...	...	464	·45
1911	...		1	35	287	1	2		110	65	..	...	...	501	·49
1912	...	...	...	35	176	...	1	...	81	46	...	...	1	340	·33

It will be observed from the above table that there has been a satisfactory diminution in the amount of Typhoid Fever in the Borough. Scarlet Fever was also much less prevalent, and fewer cases of Diphtheria were

notified during the year under review than in any year since 1908. Only one case of Puerperal Fever was reported during the year.

The following table shows the average number of notifications of the chief notifiable diseases in each ward of the Borough during the past ten years.

Wards	Averages, 10 years—1902 to 1911							
	Notifications					Total Average of Notifications	Average Population	Average attack rate per 1000 population per annum
	Small-pox	Typhoid	Scarlet Fever	Puerperal Fever	Diphtheria			
Ovenden ...	1·5	1·5	39·1	·2	12·0	54·3	6780	8·0
Akroydon ...	·6	2·5	23·3	·3	7·6	35·3	6260	5·6
North	1·5	3·6	24·3	·9	5·2	35·5	7835	4·5
Central ...	4·4	3·4	15·8	·6	5·1	29·3	7416	3·9
West	2·5	4·0	22·5	·3	8·2	37·5	8822	4·2
South	·9	3·0	15·5	...	6·9	26·3	7445	3·5
East	7·5	3·2	12·5	·6	4·5	28·3	6504	4·3
Southowram ...	·7	4·7	18·5	·4	7·1	31·4	7142	4·3
Skircoat ...	1·9	7·2	23·6	·3	12·6	45·6	10016	4·5
Copley	·4	1·5	10·4	·1	4·4	16·8	2995	5·6
Pellon	1·0	2·6	22·1	·5	10·4	36·6	9015	4·0
Kingston ..	·6	3·1	26 9	·6	8·9	40·1	10070	3·9
Illingworth ..	1·1	3·2	14·0	·1	4·3	22·7	6730	3·3
Northowram ...	...	1·2	12·0	...	1·7	14·9	3170	4·7
Warley	1·3	·9	7 3	·1	3·3	12·9	2760	4·6

It will be observed from the above table that the attack rate per 1,000 from the notifiable diseases is the highest in Ovenden ward. This ward appears to be more susceptible to Scarlet Fever and Diphtheria than the other Wards, because these are the two diseases which chiefly account for the higher attack rate in this Ward.

In East Ward, where the general deathrate is the highest in the Borough, strange to say, its attack rate from infectious diseases is only about half that of Ovenden Ward.

Causes of Death.

The following table serves to classify the causes of death in the Borough of persons belonging thereto during 1912.

CAUSES OF DEATH	Number
Whooping Cough	8
Measles	15
Scarlet Fever	8
Diphtheria and Membranous Croup	6
Diarrhœa	8
Typhoid Fever	4
Epidemic Influenza	7
Enteritis	12
Erysipelas	1
Other Septic Diseases	5
Phthisis	105
Other Tuberculous Diseases	11
Cancer, Malignant Diseases	116
Bronchitis	144
Pneumonia	98
Pleurisy	3
Other Diseases, Respiratory Organs	18
Alcoholism, Cirrhosis of Liver	7
Diseases and Accidents of Parturition and Pregnancy ...	11
Heart Diseases	175
Other Diseases, Circulatory System	24
Accidents	33
Suicides	12
Appendicitis	11
Diseases of Brain and Nervous System	179
Diseases of Digestive System...	45
Diseases of Urinary System	8
Old Age	157
Acute Rheumatism	2
Rheumatoid Arthritis	3
Nephritis and Bright's Disease	55
Diseases of Reproductive System	2
Atelectasis	3
Premature Birth	42
Congenital Defects	6
Convulsions	7
Lead Poisoning (Water)	1
Gastritis, Gastro Intestinal Catarrh	3
Injury at Birth	3
Want of Breast Milk	1
Atrophy, Debility, &c.	22
Tubercular Meningitis	15
Tuberculous Peritonitis, Tabes Mesenterica	13
Syphilis	7
Rickets...	1
Meningitis (not Tuberculous)	13
Laryngitis	2
Suffocation, Overlaying	3
Diabetes Mellitus	20
Diseases of Bone	1
Diseases, Organs of Special Sense	6
Poliomyelitis	.
Other Causes	32
All Causes	1,495

Smallpox.

No case of this disease occurred within the Borough during the year under review.

We received information from certain Port Authorities that three persons who had been in contact with the disease landed in the Country, whose ultimate destination was Halifax. These contacts were all kept under observation for a period of 15 days.

Scarlet Fever.

It is satisfactory to me to be able to report that there was a considerable diminution in the prevalence of this disease within the Borough during the year under review. There were 176 cases notified, against 287 during the previous year, the smallest number that has been notified during any year since 1907.

The mortality from Scarlet Fever below the age of one year is practically a negligible quantity, and the disease is most prevalent between the ages of 5 and 15 years, as the following table will show.

Age Period	0-1	1-5	5-15	15-25	25-45	45-65	65 up
Cases... ...	2	24	125	22	2	1	...
Deaths		2	6	...	...	...	...

The mortality, as shown by the above figures, under five years of age was 7·6 per cent., while over that age it was 4 per cent. only, or slightly more than half. The fact that the mortality among children under five years of age is so much higher, from this, as well as certain other diseases, shows the importance of doing everything

possible to protect children under five years of age from contracting these diseases.

The following table shows the average number of cases notified and the average attack rate, in quinquennial periods, since the year 1885.

Period	Average No. of Cases of Scarlet Fever per annum notified	Average Population	Average attack rate per 1000 population	Average case Mortality per cent. attacked
1885-9	331	79,207	4·1	6·1
1890-4	255	86,808	2·9	5·8
1895-9	392	95,755	4·0	3·4
1900-4	465	103,780	4·4	3·4
1905-9	274	102,908	2·6	2·9
1910-12	233	101,650	2·2	2·8

The above table shows that the attack rate per 1,000 of the population, from this disease, remained about the same up to the period ending 1904, while there has been a marked improvement in this direction since then. It is hoped that this favourable result will continue in the future.

The above table also shows what a marked decrease has taken place in the average case mortality from this disease. The average mortality per cent. is now less than half what it was 25 years ago.

The following table gives the number of cases notified during each month of the year.

Scarlet Fever	January	February	March	April	May	June	July	August	September	October	November	December	Total
Cases notified...	14	11	15	12	25	30	25	10	11	10	7	6	176

Of the above 176 cases, 8 died, which gives a death-rate of ·07, and a case mortality of 4·5 per cent. of those notified, against a deathrate of ·07, and a case mortality of 2·7 per cent. during the previous year.

Fever.

In the term Fever are included Enteric or Typhoid, Typhus, and Continued Fevers.

There were 35 cases of Fever notified, all of which were Typhoid Fever, against a total of 37 during the previous year.

Typhoid Fever was most prevalent during the month of August, six cases being notified during that month.

The following table gives the sanitary conditions connected with, and the probable or assigned causes of, the notified cases of Typhoid Fever.

Disease	Number of Cases reported	Drainage			Old Middens	Goux Closets	Water Closets	Probable or assigned cause				
		Good	Bad	Fair				No trace	From a previous case in same house	From Eating Shell Fish	Washing Clothes from an Infected House	From a Cold
Typhoid Fever...	35	29	2	4	1	27	7	28	2	3	1	1

It is probable that at least three of the above cases were due to eating shell fish, as the following notes will show.

I might mention that C.E. was not notified as a case of Typhoid Fever, but circumstances point to the fact that she most probably suffered from the disease.

E.S.—Commenced to be ill August 13th, while away on holiday at Llandudno, after eating oysters. Returned home, and was notified on September 2nd to be suffering from Typhoid Fever.

W.E.—Ate mussels on September 25th, also on subsequent dates. Notified on November 14th to be suffering from Typhoid Fever, and was removed to hospital on November 15th.

C.E.—Wife of the above, also partook of some of the same mussels on September 25th. Was not well at the time. Went to Blackpool on September 30th; returned home on October 4th; commenced to be ill on October 10th, and died on November 9th.

A.F.—Sister of the above case. Did not eat any mussels, but nursed C.E., probably contracting the disease in that way.

Information was received by this department that mussels obtained from a certain source were suspected to be dangerously polluted. Enquiries were made in the town, and a consignment of 3 cwts. from this particular source was found. Samples were submitted for bacteriological examination, the result of which confirmed the information received. These mussels were destroyed by consent of owner.

The following table gives the number of cases of Typhoid Fever notified since the year 1899, and the number of deaths each year since that date.

Year	Number of Cases Reported	Number of Deaths
1899	92	22
1900	79	20
1901	67	15
1902	65	14
1903	61	11
1904	47	10
1905	50	9
1906	38	4
1907	60	9
1908	53	10
1909	44	8
1910	33	9
1911	35	10
1912	35	4

Of the 35 cases of fever reported during the year, 4 died, giving a deathrate of ·03, and a case mortality of 11 per cent., against a deathrate of ·09, and a case mortality of 27 per cent. during the previous year.

Diphtheria.

I am pleased to be able to report that Diphtheria was less prevalent in the Borough than during the previous year, in fact fewer cases of this disease were reported during the year under review, than since the year 1908.

The disease was present in the Borough more or less throughout the year, and cases were notified from every Ward except Illingworth, Northowram, and Warley.

The period of greatest prevalence however was during the months of January and April. In the former month 22 cases were notified.

Kingston Ward suffered most from this disease, there being 28 cases reported therein, or 34 per cent. of the total cases notified.

Previous to the year 1904 the Borough appeared to have remained comparatively free from this disease, but during the above year there was a considerable increase in the number of notifications, and the disease has continued very much more prevalent ever since as the following table will show.

Year	Number of Cases Reported	Number of Deaths
1904	80	17
1905	87	27
1906	158	42
1907	118	28
1908	72	11
1909	128	27
1910	137	23
1911	110	23
1912	81	6

As stated above the disease was most prevalent in Kingston Ward. Next to this the other Wards chiefly affected were Pellon and Skircoat.

The following table gives the sanitary conditions connected with, and the probable or assigned causes of the notified cases of Diphtheria.

Disease	Number of Cases Reported	Drainage				Old Middens	Goux Closets	Water Closets	Probable or assigned cause									
		Good	Bad	None	Fair				No Trace	From other cases in the neighbourhood	From a cold	From bad drains	From previous case in same house	Contracted away from home	Contracted at school	From a suspicious case in same house	Contracted at work	From house visiting
Diphtheria	81	62	12	1	6	...	60	21	53	4	4	1	7	1	3	6	1	1

In connection with the Order for the supply of Anti-diphtheritic Serum to poor persons, 24 doses were supplied to 11 medical practitioners during the year, the cost of which was about £5, a similar amount to that of the previous year.

Of the 81 cases reported 6 died, giving a deathrate of ·05, and a case mortality of 7 per cent., against a deathrate of ·22 and a case mortality of 20 per cent. during the previous year.

The following table gives the deathrate per 1,000, and the case mortality from the disease during the past eight years.

Year	Deathrate per 1000	Mortality per cent
1905	·26	31
1906	·40	26
1907	·27	23
1908	·10	15
1909	·26	21
1910	·22	16
1911	·22	20
1912	·05	7

Erysipelas.

There were 46 cases reported, and one death occurred therefrom, against 65 notified, with one death during the previous year.

Measles.

This disease was more prevalent in the Borough than during the previous year, but it did not at any time assume a serious epidemic form. It caused 15 deaths, against seven during the previous year, and 14 of the deaths were of children under five years of age.

The deathrate for the year from this disease was ·14 per 1,000, against ·06 during the previous year.

Whooping Cough.

This disease was considerably less prevalent in the Borough than during the previous year, the period of maximum prevalence being during the month of June.

This disease caused eight deaths, against 26 during the previous year. All the deaths were of children under five years of age.

The above deaths give a deathrate for the year of ·07 per 1,000, against ·25 during the previous year.

Diarrhoea.

This disease was much less prevalent during the year under review than during the previous year, as the cold wet summer was not conducive to its development. There occurred 20 deaths therefrom, against 70 during the previous year.

The Registrar General now excludes from the zymotic deathrate all deaths due to Diarrhœa and Enteritis above two years of age, and the number of deaths under two years of age from these causes, in the Borough during the year, was nine only.

The Registrar General now calculates the Diarrhœa deathrate under two years in proportion to the number of children born, and the following table serves to compare this deathrate with the average Diarrhœa deathrate of England and Wales and other towns.

	Mortality under 2 years of age per 1,000 Births
England and Wales	8·53
95 Great Towns	10·88
146 Smaller Towns	8·03
England and Wales, less the 241 Towns ...	5·54
Halifax	**4·92**

It will be observed from the above table that Halifax occupied a very favourable position in regard to this deathrate when compared with that of England and Wales.

If we take the 20 deaths from this disease in Halifax, it gives a deathrate of ·19 per 1,000 against ·68 for the previous year.

The deathrate from Diarrhœa and Enteritis, under two years of age, of the other Yorkshire great towns for the year under review was as follows:—Leeds, 9·9; Sheffield, 10·7; Bradford, 4·4; Hull, 10·6; Huddersfield, 5·3; York, 7·9; and Rotherham, 8·0 per 1,000 born respectively.

Influenza.

Influenza was not very prevalent in the Borough during the year. There were seven deaths registered therefrom, the same number which occurred during the previous year. The majority of the deaths occurred during the months of March and April.

Respiratory Diseases.

Under this heading are included Bronchitis, Pneumonia, and Pleurisy, and there were 245 deaths registered therefrom, against 262 during the previous year.

Of the above 245 deaths, 144 were due to Bronchitis, 98 to Pneumonia, and 3 to Pleurisy, and they give a deathrate of 2·4 per 1,000, against 2·5 during the previous year.

The Respiratory deathrates for the previous 11 years were 2·5; 2·3; 2·8; 2·4; 2·7; 2·7; 2·7; 2·7; 2·9; 3·1, and 3·0 respectively, showing that the deathrate from these diseases has been gradually improving.

Respiratory diseases among children under five years of age accounted for a considerably less number of deaths than during the previous year, the number being 44, against 65 during the latter year.

The following table gives the number of deaths from Respiratory Diseases during each month of the year under notice and the ten previous years, also the average of those years.

Deaths from Respiratory Diseases	January	February	March	April	May	June	July	August	September	October	November	December	Total
1912	27	31	21	24	20	13	7	14	17	22	22	27	245
1911	26	27	27	20	32	18	15	9	20	22	22	24	262
1910	27	17	22	27	28	16	15	18	15	15	12	28	240
1909	29	30	58	23	25	18	7	6	8	16	24	46	290
1908	26	31	42	20	18	14	7	15	6	12	24	37	252
1907	27	38	25	36	21	12	13	14	8	25	33	29	281
1906	32	28	27	29	29	14	11	18	10	30	28	33	289
1905	48	26	31	24	24	16	7	8	9	29	31	33	286
1904	38	28	25	28	18	20	13	10	13	23	26	43	285
1903	39	29	30	34	29	18	16	15	14	21	24	40	309
1902	35	46	38	30	22	23	21	16	15	15	30	37	328
Average ...	32	30	31	27	24	17	12	13	12	21	25	34	...

This table shows that deaths from Respiratory Diseases are most frequent during the month of December, and also that these diseases are pretty fatal during the first quarter of the year.

Phthisis.

There were 105 deaths registered from Phthisis Pulmonalis during the year, against 94 for the previous year.

This gives a deathrate of 1·03 per 1,000, against ·92 for the previous year.

The deathrate from this disease is higher in certain parts of the Borough than in others, consequently I have got out the average deathrate in each Ward of the Borough for the past eleven years.

WARD	No. of Deaths—Phthisis Pulmonary.											Average No. of Deaths	Average Pop'lation	Death-rate per 1,000
	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912			
Ovenden ...	9	10	10	12	10	5	8	6	5	4	6	8	6780	1·1
Akroydon ...	2	4	4	4	2	4	12	4	8	9	7	5	6260	·7
North ...	9	17	10	11	7	7	20	22	8	10	8	12	7835	1·5
Central ..	8	14	9	8	16	14	8	9	11	5	8	10	7416	1·3
West ...	12	8	13	9	7	7	16	11	14	10	12	11	8822	1·2
South ...	9	6	4	6	5	7	10	7	4	2	...	5	7445	·6
East ...	7	15	14	18	17	19	6	12	9	11	18	13	6504	1·9
Southowram	9	4	6	10	10	8	9	9	9	11	10	9	7142	1·2
Skircoat ...	7	13	20	12	9	8	12	12	7	6	6	10	10016	·9
Copley ...	4	1	5	5	2	3	4	...	2	4	2	3	2995	1·0
Pellon ...	11	11	10	8	10	10	9	6	8	7	6	9	9015	·9
Kingston ...	5	11	12	12	11	12	14	9	5	6	10	10	10070	·9
Illingworth .	7	4	10	11	3	11	6	6	9	5	3	7	6730	1·0
Northowram	8	6	3	4	5	4	8	3	4	2	4	5	3170	1·5
Warley ...	1	9	4	5	8	1	4	4	...	2	5	4	2760	1·4
Totals	108	133	134	135	122	120	146	120	103	94	105	120	102960	1·16

From the above table it will be observed that East Ward has considerably the highest Phthisis deathrate, while five of the Wards, viz., Akroydon, South, Skircoat, Pellon, and Kingston, have average Phthisis deathrates below that of the Borough for the year under review.

The average Phthisis deathrate of the 15 Wards of the Borough during the past 11 years was 1·16 per 1,000, and the 11 years average of eight of the Wards was above that figure, and seven below it.

The following table shows the deathrate from this disease during the last 12 years.

Year	Deathrate	Average
1901	1·38	
1902	1·03	
1903	1·27	1·25
1904	1·28	
1905	1·30	
1906	1·18	
1907	1·16	
1908	1·42	1·18
1909	1·17	
1910	1·01	
1911	·92	
1912	1·03	·97

The above table shows that the deathrate from this disease is gradually falling, and the decline in the Phthisis deathrate is marked, if the figures be shown in decennial periods as set out in the following table, for the past 30 years.

	Average Deathrate from Phthisis
Ten Years - 1881-1890 ...	2·00
Ten Years - 1891-1900 ...	1·50
Ten Years - 1901-1910 .	1·22
Two Years - 1911-1912 ..	·97

There were 39 deaths from other forms of tubercular disease, which, added to the above, make a total of 144 deaths for the year due to the various forms of Tuberculosis.

This gives a total deathrate from all Tubercular diseases of 1·4 per 1,000, against 1·2 during the previous year.

The causes of death from Tubercular disease other than Phthisis were as follows.

Tubercular Meningitis	15
Tuberculous Peritonitis Tabes Mesenterica	13
Other Tubercular Diseases ...	11

Under the regulations of the Local Government Board, which make the occurrence of Phthisis in a poor person compulsorily notifiable to the Medical Officer of Health, 105 notifications were received during the year.

The above notifications were in respect of 66 persons, of which number 42 referred to primary cases, and 24 to cases which had been reported during previous years. The remainder were duplicates.

The following table shows the ages of the 42 primary cases above referred to, and the Wards to which they belonged.

At all Ages	AGE PERIOD							WARD													
	Under 1 year	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards	Ovenden	Akroyden	North	Central	West	South	East	Southowram	Skircoat	Copley	Pellon	Kingston	Illingworth	Northowram	Warley
42	...	...	1	3	10	26	2	...	1	2	4	7	3	15	2	6	...	...	2	...	...	...

Of the above 42 cases, 35 were males, and 7 females.

The following table shows the number reported more than once, and the number of duplicate notifications received in connection therewith.

Number of Primary Cases	34	5	2	1	...	...	42
Cases reported during 1912, which had been notified during the previous year	13	6	1	1	2	1	24
Total Cases notified...	47	11	3	2	2	1	66
Number of times each case was notified during 1912	1	2	3	4	5	9	...
Number of notifications received	47	22	9	8	10	9	105

The usual enquiries were made into the family history of persons reported under the above regulations, and in three families previous cases were found to have occurred, two of which had one, and one, two previous cases respectively.

In seven cases nothing was known about the family. We were unable to trace three cases at the addresses given on discharge, and in 29 cases there was no history of the disease in family.

Of the 42 primary cases, 11 were from one or other of the common lodging houses; four were of the tramping class; seven of the cases had been in St. Luke's, or the Workhouse, for periods varying between 1 and 10 years. With the three cases we were unable to trace, there was a total of 25, or 59 per cent. of the 42 primary cases, about which little or no information could be obtained.

Disinfection was carried out in 20 instances after removal to hospital, or death.

Under the Public Health (Tuberculosis in Hospitals) Regulations, 1911, a total of 33 notifications were received during the year, nine of which were in respect

of persons not resident within the Borough, and they were duly transmitted, in conformity with the requirements of Article 4 (2) of the above Regulations.

I also received transmission forms in respect of five persons belonging to the Borough, who were undergoing treatment in Sanatoria in various parts of the country.

There was therefore a total of 29 notifications received under these regulations, in respect of persons residing within the Borough.

Of this number, however, three have been notified previously under the 1908 Regulations; and one has been notified twice, and another three times under these regulations during the year under review. There was thus a total of 23 primary notifications.

The whole of the cases notified in the Borough were in attendance either as in-patients or as out-patients at the Royal Halifax Infirmary.

Of the nine patients residing outside the Borough, one belonged to Stainland, two to Hipperholme, one to Lightcliffe, one to Queensbury, one to Greetland, one to Sowerby Bridge, one to Southowram, and one to Elland.

Of the 23 primary cases notified belonging to the Borough, 11 were males and 12 were females, and the following table gives the age periods, and the Wards in which the patients reside.

At all Ages	AGE PERIOD							WARD													
	Under 1 year	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards	Ovenden	Akroyden	North	Central	West	South	East	Southowram	Skircoat	Copley	Pellon	Kingston	Illingworth	Northowram	Warley
23	...	...	6	5	12	...	...	1	...	4	2	2	3	3	4	1	...	1	1	...	...	1

The Local Government Board further extended the notification of Pulmonary Tuberculosis during the year, by issuing the Public Health Tuberculosis Regulations, 1911. These Regulations came into force on January 1st, 1912, and extended compulsory notification to all persons suffering from Pulmonary Tuberculosis.

During the year under review a total of 162 notifications were received under these regulations. Three of these related to persons only temporarily resident within the Borough, and 12 were in respect of persons who had been previously notified, either under the 1908, or the Hospital Regulations, leaving a total of 147 primary cases residing within the Borough.

The following table shows the ages and sex of the primary cases notified, together with the Ward in which they reside.

At all Ages		Under 1 year		1 to 5		5 to 15		15 to 25		25 to 45		45 to 65		65 and upwards	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
69	78	...	1	...	1	11	5	12	30	28	28	15	13	3	...

Ovenden	Akroydon	North	Central	West	South	East	Southowram	Skircoat	Copley	Pellon	Kingston	Illingworth	Northowram	Warley
9	9	14	14	19	5	11	9	12	4	12	13	11	...	6

The cases were all visited, and from the various enquiries made, we obtained the information set out in the following tables.

The first table gives the length of time each patient was stated to have suffered from the disease.

PERIOD	Number	PERIOD	Number
Under 1 week ...	0	4 to 5 years ...	6
1 to 2 weeks ...	4	5 to 6 „ ...	6
2 to 3 „ ...	6	6 to 7 „ ...	3
3 to 4 „ ...	2	7 to 8 „ ...	3
1 to 2 months ...	11	8 to 9 „ ...	1
2 to 3 „ ...	5	9 to 10 „ ...	1
3 to 4 „ ...	8	10 to 11 „ ...	1
4 to 5 „ ...	3	11 to 12 „ ...	1
5 to 6 „ ...	2	12 to 13 „ ...	2
6 to 7 „ ...	15	13 to 14 „ ...	0
7 to 8 „ ...	1	14 to 15 „ ...	0
8 to 9 „ ...	1	15 to 16 „ ...	2
9 to 10 „ ...	2	16 to 17 „ ...	1
10 to 11 „ ...	1	Ailing from birth	6
11 to 12 „ ...	1	A long time ...	1
1 to 2 years ...	16	Recent	4
2 to 3 „ ...	18	No Information	5
3 to 4 „ ...	8	Total ...	147

The following table shows the occupations of those notified as suffering from the disease, males and females being shown separately.

OCCUPATION Males	No.	OCCUPATION Females	No
Stone Delver	3	Home Duties	28
Warehouseman	3	School Girls	4
Draughtsman	1	Machinist	1
Mechanics	3	Cotton Twisters	2
Clerks	3	Worsted Twisters	3
Cabinet Maker	1	Laundry	1
Painter	1	Coating Mender	1
Labourers	10	Publican	1
Electricians	2	Weavers	3
Stone Masons	3	Millhand	2
Packer (Paint)	1	Worsted Rovers	3
Blacksmith	1	Do. Drawer	1
Music Hall Artiste	1	Do. Reelers	2
Overlooker	1	Do. Spinners	2
Music Teacher	1	Sample Prover (Wool)	1
Jobbing Gardener	1	Clerk	1
Shop Assistants	2	Burnisher (Jewellery)	1
Boiler Rivetter	1	Shop Assistants	3
Retired	1	Silk Drawer	1
School Boys	9	Cotton Spinner	1
Drivers (Horse)	2	Cotton Reeler	1
Slipper Maker	1	Thimble Maker	1
Ticket Stamper (Carpets)	1	Flax Workers	2
Plasterer	1	Jeweller's Enameller	1
Case Maker	1	Packer	1
Iron Moulder	1	Winders	3
Woolcomber	1	Milliner	1
Dentists	2	Domestic Servant	1
Shopkeeper	1	Yarn Damper	1
Jeweller (Factory)	1	Confectioner's Factory	1
Brass Works	1	Under age	...
Foreign Correspondent	1		
Iron Planer	1		
Plumber	1		
Not stated	2		
Oilers (Machinery)	2		
Total	69	Total	78

In seeking to obtain information regarding the probable predisposing cause of the disease, the following information was obtained.

Probable Predisposing Cause	Number
From a previous case or cases in family ...	19
Followed attack of Bronchitis, Pneumonia, or Pleurisy	11
Do. Influenza	4
Do. Diarrhœa	1
Do. Whooping Cough	1
Followed Confinement	1
Do. Operation for Fistula ...	1
Do. Chills	8
Intemperate Habits	1
Overwork	2
Anæmia	8
Sleeping in a damp bed	1
Nature of Occupation	7
Constitutionally Delicate	4
Not known	78
Total ...	147

The enquiries made as to the family history of those suffering from the disease, resulted in obtaining the information shown in the following table.

Previous Cases	Families
No History of Disease in Family ...	89
One previous case in Family	32
Do. do. Relatives ...	5
Two Do. cases in Family	4
Do. do. Relatives ...	2
Three Do. do. Family	2
Do. do. Relatives ..	2
Four Do. do. Relatives ..	1
Five Do. do. Family	2
Eight Do. do. Family	1
History in Father's Family	2
Information unobtainable	5

With regard to the size of the house, and the number of persons occupying the same, the following table gives the result of the observations made thereon.

Number of Families	Number of Persons	Number of Rooms	Number of Families	Number of Persons	Number of Rooms
1	1	1	1	8	4
3	2	1	1	9	4
5	2	2	1	11	4
5	3	2	1	2	5
7	4	2	5	3	5
3	5	2	5	4	5
1	6	2	7	5	5
3	7	2	4	6	5
1	8	2	4	7	5
2	2	3	1	8	5
9	3	3	3	9	5
9	4	3	2	10	5
13	5	3	1	4	6
4	6	3	2	6	6
2	7	3	1	7	6
3	8	3	2	8	6
1	9	3	1	10	6
6	3	4	1	3	7
3	4	4	2	4	7
4	5	4	1	7	7
3	6	4	1	7	8
4	7	4			

1 patient lived at Salvation Army Shelter.
7 patients no information could be obtained.

The enquiries made regarding the drainage of the houses occupied by those notified, resulted in the following information being obtained.

In Good Condition	...	102
In Fair ,,	...	29
In Bad ,,	...	5
In Poor ,,	...	1
In Doubtful ,,	...	3
No Drains ...	...	1
Information unobtainable	...	6

The following table gives the result of the inspections regarding the ventilation of the houses affected.

Good	57
Fair	64
Poor	20
No information	6

The method of excrement disposal in connection with each house is shown in the next table.

Goux (Tub) Closets ...	112
Water Closets	24
Privy Middens	5
No information	6

The condition of the houses as to cleanliness was as follows.

Clean	111
Fairly Clean	30
No information	6

Disinfection was carried out after death, or removal to hospital, or elsewhere, and in this way 81 rooms and 46 beddings were disinfected, 8 beddings being destroyed at owner's request.

Under the three sets of regulations there were therefore reported a total of 212 primary cases during the year, of which number 115 were males, and 97 were females.

In the following table these cases have been distributed according to age and locality.

At all Ages	Under 1 year	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards
212	1	1	23	50	78	54	5

Ovenden	Akroydon	North	Central	West	South	East	Southowram	Sk roat	Copley	Pellon	Kingston	Illingworth	Northowram	Warley
9	10	20	20	28	11	29	15	19	4	13	16	11	...	7

With a view of dealing more efficiently with this disease, your Committee for some time previously had under consideration, the provision of both a sanatorium and a dispensary, for the treatment of this disease, and premises had actually been secured during the previous year for the purposes of a tuberculosis dispensary.

The coming into force of the National Insurance Act, 1911, necessitated that immediate temporary provision of the above character should be made, consequently the new isolation block at Stoney Royd, containing 12 beds, was set apart for the treatment of hospital and observation cases of this disease, and the necessary alterations and equipment of the premises which had been previously secured for dispensary purposes were pushed on with.

A Tuberculosis Nurse was appointed, and the Education Committee agreed to allow their Medical

Officer, Dr. Taylor, to act as temporary Clinical Tuberculosis Officer.

The Wards at Stoney Royd were opened in September, and the first case was admitted on the 17th of that month.

The Dispensary was also opened on the 17th of September, the hours for treatment there being temporarily fixed for Mondays and Thursdays, from 5 to 7 p.m., while special cases or groups of cases were examined on other evenings by appointment.

As many of the patients attending the dispensary continue at work during the treatment there, the evening hours seemed most suitable for this work.

The cases of Phthisis notified to the Medical Officer of Health, were first visited by the Sanitary Inspectors. Their reports were then referred to the Tuberculosis Nurse, who followed up the cases. In that way she visited 107 notified cases, paying a total number of 150 visits.

Of these cases, 48 were males, 43 females, and 16 children under 16 years of age.

Of the 91 adults, 59 were unable to work, while 32 were following their usual or some form of occupation.

72 were advanced cases, and 19 were in the earlier stages, giving promise of arrest.

Nine of the cases have died since the notifications were received, and in two of these, death occurred before the Nurse was able to visit the house.

At the Dispensary 64 cases were examined by the Medical Officer in charge, and dealt with as follows:—

19 were sent to the Observation Wards at Stoney Royd.

2 were sent to Sanatoria (one after a few weeks' stay at the Hospital).

14 were treated at the Dispensary by Tuberculin injections.

2 were sent to Bermerside Home and School.

21 were advised and kept under observation.

8 were referred elsewhere, for medical or surgical treatment.

Thirteen of the 19 sent to Stoney Royd, continued the Tuberculin treatment at the Dispensary on their discharge from the hospital.

The diagnosis (including X-ray examination and diagnostic injections in the cases treated) was as follows:—

Tubercular disease of Glands	3
Contact child with doubtful signs	1
Turban Stage I	4
Do. I-II	4
Do. II	4
Do. II with tubercular laryngitis ...	2
Do. II-III	4
Do. III	13
Total ...	35

Of the above 8 cases in the early stages (I & I-II)—

2 were sent to Sanatoria.

3 were sent to Stoney Royd for preliminary treatment.

3 were treated by tuberculin at the Dispensary, and continued their work.

There were 2 deaths, both being advanced cases

The total number of tuberculin injections (diagnostic and therapeutic) was about 250. Bovine and Old Tuberculin were given in small doses, gradually increased, and in a few febrile cases, Spengler's I. K. was administered.

An attempt was made to improve home and personal hygiene of the patients, and where necessary, simple therapeutic agencies (Cough sedatives, inhalations, and Cod Liver Oil) were prescribed.

The immediate results in the majority of cases were encouraging, but the work covers too short a period to generalise.

Anthrax.

One case of this disease was reported to me during the year.

The patient, J.S., was aged 57, and commenced to be ill on June 30th, his right forearm being painful and swollen. He was admitted to the Royal Halifax Infirmary on July 1st. He was employed as a warehouseman, being chiefly engaged in packing finished products,

"tops and noils." He occasionally assisted in the unloading of wool and general packing. He did not handle raw wool until the same had been opened and sorted.

On June 29th he assisted in the packing of five sheets of sorted matchings—wool which is required to be sorted under prescribed conditions. He washed himself as usual before leaving work.

This patient eventually recovered from the disease.

The wool used at this mill is imported from Russia, China, and Persia.

Under the Anthrax Order of 1910, two farms were reported to me as infected places, by Veterinary Inspectors under the above Order.

Cancer.

All the various forms of malignant disease are included under the above heading.

There resulted 116 deaths, against 119 during the previous year. This gives a deathrate of 1·14 per 1,000, against 1·17 for 1912, and with the exception of 1911, was the highest cancer deathrate recorded in the Borough during the past 20 years.

Of the 116 deaths from this disease, 50 were males, and 66 were females.

The following table shows the organs affected, in those who died from the disease.

Lip	1	Rectum	7
Liver and Gall Bladder ...	1	Ventricles ...	2
Uterus...	19	Neck	2
Endocardium	1	Scrotum	1
Tongue	2	Lungs	2
Liver	14	Femur	1
Pancreas	1	Ovaries	1
Stomach	17	Bladder	1
Oesophagus	4	Bowel	5
Tonsil	2	Penis	1
Breast	13	Jaw	1
Liver, Spleen, and Lungs	1	Vaginae	2
Tongue, Pharynx, and Jaw	1	Prostate	4
Mastoid and Base of Skull	1	Thigh	1
Pancreas and Liver ...	1	Face	1
Stomach and Liver ...	1	Larynx	2
Testicles	1	Not stated ...	1

The following table shows the deathrate from malignant disease in Halifax since the year 1892.

Year	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
Deathrate...	·8	·7	·8	·8	1·1	·6	·6	·7	·7	·8	·9
Year	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	
Deathrate...	1·0	·8	1·0	·9	1·1	1·0	·8	1·0	1·1	1·1	

Inquests and Uncertified Deaths.

There were held 100 inquests by the Coroner during the year, which included 13 on persons not belonging to the Borough.

There were also 6 inquests held outside the Borough, on residents belonging thereto, who died away from home.

The 93 deaths certified by the Coroner after inquests, form 6·2 per cent. of the total deaths of the Borough.

There were two deaths which were neither certified by a Medical Practitioner nor the Coroner, which corresponds to ·13 per cent. of the total deaths.

There was one case reported to the Coroner in which an inquest was deemed unnecessary.

The following table shows the percentage of deaths certified by the Coroner, and the percentage of uncertified deaths during the past 11 years.

Years	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
Percentage certified by Coroner ...	2 9	3·1	2·8	3·5	4·7	5·1	6·0	6·7	7·1	6·6	6·2
Percentage uncertified	2 6	1·5	1·0	0·7	0·7	0·9	1·0	0·7	0·8	0·4	0·1

The percentage of deaths certified by the Coroner after inquests is the lowest since 1908, and the percentage of uncertified deaths is the lowest on record.

Water Supply.

The water is supplied to Halifax by gravitation, and is obtained from 5 separate valleys.

The waterworks now consist of 10 storage and 6 service reservoirs, having a total capacity of 1,955,222,000 gallons.

The collection grounds or drainage area of the reservoirs is chiefly moorland, or high mountain pasture, and of the mill-stone-grit formation.

The water is conveyed to the town by means of covered conduits, and large iron pipes. It is delivered at a high pressure and with a constant supply.

The higher portion of the town is supplied from a service reservoir at Royles Head, to which the water is pumped, the lift being 300 feet.

Storage reservoirs are relied upon for the purification of the water supplied to the main portion of the Borough, but that supplied from Ogden and Ogden Kirk reservoirs only is filtered, there being two 8 ft. pressure filters, made by Messrs. Mather & Platt, of Manchester, and one 3 ft. filter of the same make for filtering the Ogden Kirk supply.

There was an excessive rainfall during the year 1912, so that there was an ample supply of water throughout the year.

The gathering grounds being of a moorland character, the water is liable to contain an excessive amount of peaty acids, hence it is liable to have a certain amount of solvent action upon lead. This is more especially so in the case of Ogden reservoir. That being the case, all the water supplied to the Borough is now treated by the addition of slaked lime, one grain of slaked Buxton lime, in the form of milk of lime, is added to each gallon of water, except in the case of Ogden Kirk, where the water is excessively acid, and to this is added 8 grains of lime per gallon.

The following table, which is prepared from figures obtained from the analyses of Mr. Dewhirst, the Borough Analyst, gives the acidity of the water, before and after treatment.

Month	Average Acidity of Sample of Water, in parts per 100,000			
	Ogden Reservoir		Ramsden Wood Reservoir	
	Before Treatment	After Treatment	Before Treatment	After Treatment
January ...	1·19	·46	·55	·34
February ...	·9	·11	No estimation	·19
March ...	No estimation	No estimation	,,	·16
April ...	,,	,,	,,	·19
May ...	,,	,,	,,	·20
June ...	,,	,,	,,	·15
July ...	,,	,,	,,	·23
August ...	·8	·18	,,	·17
September ...	·96	·09	,,	·21
October ...	·93	·16	,,	·_7
November ...	No estimation	No estimation	,,	·12
December ...	·96	·10	,,	·16

From the above table it will be observed that only one estimation of the acidity of the water in Ramsden Wood reservoir was made during the year, before treatment, and that during the month of January, when, as a rule, the acidity of the water is at about the highest point.

The average acidity of the water of this reservoir will be less than that shown above, possibly not more than about ·4 parts per 100,000. It would, however, be more satisfactory if estimates were more frequently made.

The effect of the treatment on both Ogden and Ramsden Wood water must, I think, be considered satisfactory, although it would appear that the treatment applied to Ogden water has a more beneficial effect in regard to reducing its acidity than upon the Ramsden Wood water.

Upon 21 occasions, viz.:—Ramsden Wood 13, and Ogden 8, the water after treatment, and as finally supplied to the consumer, was found to be either neutral or slightly alkaline in reaction, so that the water as finally supplied to the consumer was even better, so far as its acid qualities were concerned, than the above table shows.

I am glad to find that Mr. Hartley, the Waterworks Engineer, now obtains better results in treating the water than was the case a few years ago.

The only suggestion which I could make for further improvement would be to vary the amount of lime added more or less in proportion to the amount of acid found in the water of the reservoirs. If that were done, I think it would be possible to secure a more uniform result after treatment.

I am satisfied that this method of treating the water is of great value from a public health standpoint, as no case of lead poisoning in persons drinking the Corporation water has come to my knowledge now for many years past.

In connection with certain domestic local water supplies, we have had a number of cases of lead poisoning during the year under review.

The matter was brought to my attention through the death of a person from lead poisoning.

It appears that this particular individual had been suffering from some indefinite complaint and her case had been diagnosed as one of rheumatism, and it was only a week or two before her death that the true cause of her illness was discovered, viz., lead poisoning.

Samples of water supplied to this house were tested and found to contain a considerable quantity of lead, the pipe conveying the water from the local well being a lead one.

There were a number of other houses in the neighbourhood, and samples were taken in each case, and most of the same were found to be dangerously contaminated with lead. In all, 20 houses were affected in this way.

Notices were served upon the owners in each case, and the lead service pipes were, with one exception, replaced with iron. In the latter case a sufficient and wholesome supply of water was available apart from that which was contaminated. The use of the latter was discontinued for domestic purposes.

As a result of this action, the inhabitants of these houses now state that their health has very much improved.

Sewerage and Drainage.

Mr. Lord, the Borough Engineer, has supplied me with the following particulars.

The sewers have been regularly flushed and are generally in a satisfactory condition.

In the Northowram district 594 yards of 9in. pipe sewers have been laid in Kell Lane in connection with the scheme for the sewering of that district, also short lengths of new sewers have been laid in various parts of the town where necessary.

Ten additional percolating filter beds and two detritus tanks have been constructed at the outfall works, Salterhebble, during the year, and these are working satisfactorily. The sludge-press house has also been extended and three additional presses installed.

The 48in. main outfall sewer, from the Sewage Works to Water Lane, has been commenced and the work is now well in hand.

A scheme has been prepared for the drainage of the Ovenden district, and powers are being sought for the construction of a portion of the same.

Scavenging, Disposal of Night Soil and House Refuse.

The cleansing and scavenging of all paved streets and roads is carried out by men employed by your Committee, who also undertake the watering of all roads and streets.

The scavenging of the macadamised roads is carried out by the Highways Committee, and I believe this important work has, in both cases, been satisfactorily performed during the year.

Although the number of water closets is steadily increasing, the greater part of the town is still not provided with these sanitary conveniences. There is therefore a large amount of night soil to contend with, and this is dealt with under what is called the "Goux" system, there being 18,172 closets in the Borough, an increase of 32 during the year.

No new houses where a sewer and water supply are available are allowed to be provided with this form of closet, and a number of others have been converted during the year to the water carriage system.

The goux tubs are renewed at periods varying from 3 to 10 days, according to circumstances. The tubs are washed on each occasion on which they are emptied, and partially filled with absorbent material before being returned to the closets. There are 21 horses and vans, and 31 men engaged on this work.

The amount of nightsoil dealt with in this way per annum is about 7,000 tons, which is disposed of to a contractor, by boat at 2s. 7d., and by rail at 3s. 6d. per ton.

There are 6,950 water closets in the Borough, an increase of 274 during the year.

The following table gives the number of water closets in the Borough, and shows the increase which has taken place since the year 1893.

Year	Number of W.C.'s in the Borough
1893	3796
1894	3837
1895	3880
1896	3921
1897	3962
1898	4003
1899	4166
1900	4331
1901	4496
1902	4661
1903	4826
1904	4991
1905	5157
1906	5317
1907	5566
1908	5852
1909	6097
1910	6421
1911	6676
1912	6950

There are 760 privy middens in the Borough, against 757 shown in my annual report for the previous year, or an increase of 3, and 407 dry ashpits, the same number as during the previous year.

The increase shown in the number of privy middens is accounted for by the fact that eight which had previously been emptied by the occupiers are now emptied by the Corporation. Five, however, were converted, on account of the absence of a sewer, to the Goux system during the year, leaving a nett increase of three.

With regard to the removal of house refuse, in the majority of cases tubs are provided by the Corporation, and the work is carried out by men employed by the Health Committee.

The average number of horses and carts used for the removal of this refuse was 16, and the number of men engaged in the work during the year was 32.

Most of the house refuse is still disposed of by tipping, the remainder, a small proportion, being carted to the Dust Manipulator.

The Dust Manipulator, which was installed during the year 1910, has continued to work satisfactorily throughout the year, and it has dealt with all the garbage from the slaughterhouse, Market Hall, as well as the fish refuse from certain shops in the town, also a certain amount of house refuse.

The following was the amount of refuse carted to the Manipulator.

	Loads
House Refuse	1,617
Market Garbage	468
Fish Garbage	162
Slaughterhouse Garbage	174
Sundry Refuse	131
Total ...	2,552

This was passed through the Manipulator and converted into manure, and disposed of as follows :—

	Tons	Cwts	Qrs.
By Rail	480	0	0
To Local Farmers ...	92	1	0
To Goux Depot ...	469	0	1
Total Manure	1041	1	1
Ground House Refuse to Goux Depot ...	800	4	3
Total	1,841	6	0

There was no difficulty experienced in getting rid of this manure, except for a few weeks during the summer months, in fact, during the winter time there was a great demand for the manure and we were unable to supply a number of orders that were received.

Your Committee has now entered into a contract for the sale of the whole output of the manure from this machine, both during the summer and winter months, over a period of two years, expiring in February, 1914, at the price of 1s. 3d. per ton.

Common Lodging Houses.

The Common Lodging Houses in the Borough are required to be re-registered in May of each year, under the provisions of the Halifax Corporation Act, 1900.

There are now 16 of these Lodging Houses situated within the Borough, against 17 during the previous year, and they are registered to accommodate 732 lodgers, against 882 previously.

The Police are responsible for their general conduct, and the carrying out of the bye-laws relating thereto.

I am informed by the Chief Constable that there has been no cause for complaint during the year. These houses have been generally well-conducted, and no legal proceedings of any kind have been necesaary.

Factories and Workshops.

In connection with the administration of the Factories and Workshops Act, 1901, a considerable number of improvements have been secured in connection with the factories and workshops of the Borough.

There are still, however, a number of factories and workshops in connection with which the sanitary conveniences are not altogether satisfactory. These, however, are being gradually dealt with, and the number of such is a diminishing quantity.

The improvements which have been carried out during the year have been secured without the necessity of resorting to legal proceedings.

The complaints made regarding the neglect of lime-washing of workshops numbered 34, against 32, while dirty closets, floors, staircases, &c., numbered 17, against 13 during the previous year, respectively.

There were 9 complaints made during the year regarding defective ventilation,, and 3 cases of over-crowding were reported on.

The following table gives the number of visits that were paid to factories and workshops, and to shops under the Shop Hours Act, by the District Sanitary

Inspectors. The visits under the latter, included in the following table, only cover about half the year, as a Shops Act Inspector was appointed in the month of June during the year under review.

District	Number of Visits made to Factories	Number of Visits made to Workshops	Number of Visits made under Shop Hours Act
A	41	374	88
B	59	403	84
C	73	270	85
D	45	100	20
Total ...	218	1,147	277

The Borough is divided into four districts for inspection purposes, and the Sanitary Inspector responsible for each district carries out the inspection of the factories and workshops situated therein.

The number of visits paid to the factories and workshops by the Sanitary Inspectors was 1,365, against 1,229 during the previous year, and several visits were paid by myself to factories and workshops, in connection with alterations that were required to improve their sanitary condition.

The four tables which follow indicate the number and nature of the various sanitary defects, and the amount of work done by the Sanitary Inspectors in their respective districts.

DISTRICT A.

INSPECTOR JOHN GEORGE WALSHAW.

Number of Workshops on the Register, 270.

Nature of Defects	Number Registered
IN FACTORIES.	
Offensive condition of closets	4
Insufficient closet accommodation	2
IN WORKSHOPS.	
Rooms requiring limewashing	9
Insufficient ventilation	3
Defective water closets	4
Defective drains	2
Total	24

DISTRICT B.

INSPECTOR ROBERT PICKARD.

Number of Workshops on the Register, 257.

Nature of Defects	Number Registered
IN FACTORIES.	
Offensive smoke	4
Offensive goux closets	2
Want of screens or separate approaches to water closets...	2
Insufficient light and ventilation to water closets ...	12
Nuisance from water tank	1
Insufficient closet accommodation	4
Defective, made-up, and untrapped drains	16
IN WORKSHOPS	
Rooms requiring limewashing	25
Insufficient ventilation	6
Insufficient closet accommodation	2
Defective drains and sink pipes	6
Dilapidated goux closets	4
Want of separate closets for sexes ...	2
No copy of abstract	6
Defective Water closets	2
Goux closet to convert to water closet	1
Dirty floors, staircases, and closets .. .	5
Workrooms overcrowded	2
Total	102

DISTRICT C.

INSPECTOR JAMES EDWARD FIRTH.

Number of Workshops on the Register, 167.

Nature of Defects	Number Registered
IN FACTORIES.	
Untrapped drains	4
Made-up water closets	10
Made up sink drains	2
Offensive goux closets	3
Nuisance from gas engine exhaust	1
Closets insufficiently partitioned off	2
IN WORKSHOPS.	
Closets opening direct into workrooms	2
Made-up water closets, urinal and sink drain ...	5
Water in cellars	2
Want of drains...	1
Dirty closets	2
Defective closet door	1
Accumulation of rubbish	2
Offensive fumes	1
Insufficient closet accommodation	1
Workrooms requiring limewashing	9
Overcrowding	1
Total ...	49

DISTRICT D.

INSPECTOR FRED TEAL.

Number of Workshops on the Register, 97.

Nature of Defects	Number Registered
IN FACTORIES.	
Insufficient closet accommodation	1
Closets too small	3
Closets opening direct into workroom	4
Offensive closets	1
IN WORKSHOPS	
Defective floor	1
Total ...	10

The foregoing tables show that 185 nuisances and sanitary defects were dealt with, against 200 during the previous year.

The number of sanitary defects which remained unabated at the end of the previous year numbered 32, which, together with the above 185, made a total of 217. Of these 195 were remedied, and 22 remained unabated at the end of the year.

I received through the Town Clerk, from the Factory Inspector, 23 notices regarding sanitary defects, under section 5 of the Factory and Workshops Act. Of the above defects 11 were in connection with factories, 9 in connection with workshops, and 3 in connection with workshop bakehouses.

All the above were attended to, and most of them completed during the year. After completion the Factory Inspector was duly notified thereof.

The number of notices of abatement sent to the Factory Inspector were as follows:—Factories, 11; Workshops, 11; Workshop Bakehouses, 3.

Two more notices of completed work were sent to the Factory Inspector than the number of notices received from him by this department. This is accounted for by the fact that certain notices of defects received during the previous year had not been completed within the year.

Under section 107 of the Factory and Workshops Act, which refers to the outworkers, there was an increase both in the number of lists sent in, and in the number of outworkers.

All the outworkers were duly visited during the year by the Sanitary Inspectors, who paid 101 visits for that special purpose.

There were 26 lists sent in, against 20 during the previous year, and the number of outworkers notified was as follows:—

	Tailors	Shoe-makers	Seam-stresses	Knitters	Total
No. of Outworkers	41	7	9	2	59

The premises of the outworkers who work in their own houses were all found to be in a satisfactory condition, and free from infectious disease.

As quite a number of those returned as outworkers occupy workshops of their own, they are also visited in that respect, and this accounts for the comparatively small number of visits paid to the outworkers purely as such.

In connection with the outworkers who occupy workshops of their own, there was no cause for complaint during the year.

Two of the lists sent in contained the names and addresses of two outworkers who reside outside the Borough, viz., one at Lightcliffe, and one at Queensbury. Notices in accordance with the Act were therefore sent to the Medical Officers of Health for those districts.

One firm in Bradford employs an outworker in Halifax, and notice was duly received thereof from the the Bradford Sanitary Authority.

The following is a detailed list of all the workshops on the Workshops Register. This Register has been kept up-to-date from lists received from the Factory Inspector, and there has been a decrease of 14 during the year.

Pattern Card Maker ...	1	Saddlers	11
Joiners & Cabinet Makers	63	Milliners...	58
Brush Makers	10	Coopers	4
Provision Merchants ...	7	Bakehouses	129
Rag Sorters	4	Drug Packing	2
French Polishers ...	5	Coach Builders	4
Tailors	64	Rope Makers	2
Marine Store Dealers ...	2	Wood Carvers	4
Blacksmiths	27	Wool Sorters	6
Upholsterers	14	Cork Cutter ...	1
Umbrella Makers ...	2	Gun Makers	3
Box Makers	3	Carpet Repairers ...	4
Surgical Instrument Mak'r	1	Picture Frame Makers ...	3
Fruit Boiler	1	Wire Workers	2
Plasterers	2	Basket Makers	2
Hosiers and Knitters ...	13	Tinners	13
Wheelwrights	14	Locksmiths	1
Painters	11	Cutler	1
Plumbers	24	Underclothing Makers ...	13
Printers	4	Electrical Engineers ...	4
Sweet Boiler	1	Piano Makers	4
Cistern Maker	1	Firelight Makers ...	4
Clog Sole Makers ...	2	Drysalters	2
Belt and Brace Makers ...	6	Boot Upper Maker ...	1
Oil Merchants	2	Cycle Repairer	1
Rug Makers	2	Sign Writer	1
Watch Makers & Jewellers	14	Brass Works	3
Flock Dealer	1	Laundries	10
Sugar Packer	1	Hair Pad Makers ...	7
Metal Engravers ...	3	Machine Makers ...	8
Hair Dressers	9	Machine Brokers ...	1
Metal Polish Makers ...	3	Marble Masons	5
Chair Maker	1	Shoeing Smiths	2
Photographers	5	Firewood Cutters ...	2
Billiard Table Maker ...	1	Skep Maker	3
Ventilating Engineers	2	Dentists	5
Fireplace Maker ...	1	Beer Bottlers	2
Boot, Shoe, and Clog Makers	135	Paper Bag Maker ...	1
Weight and Scales Maker	1	Dry Cleaners	2
Dress and Mantle Makers	93	Bookbinder	2
Art Needlework... ...	1	Mineral Water Manuf'r.	3
Tripe Dresser	1	Musical Instrument Maker	1
Machine Roller Maker ..	1	Essential Oil Blenders ..	2

Total number of Workshops, 898.

Bakehouses.

The bakehouses are supervised by the district Sanitary Inspectors, and were all visited from time to time during the year.

The number on the register was 129, against 126 during the previous year, an increase of three.

The number of underground bakehouses remains the same, viz.—26.

The number of visits paid to the bakehouses during the year was 382, as the following table will show.

Description of Premises	Number on Register	Number of Visits made
Wheat Bread and Muffin Bakers, including Confectioners	119	382
Oat Bread and Muffin Bakers	10	

The bakehouses are now kept in a better and more cleanly condition than was the case a few years ago. As usual the largest number of complaints had reference to the neglect of limewashing the bakehouses at the proper time. The occupiers do not attend to this matter so promptly as they ought to do.

The number of defects, including limewashing, reported during the year was 59. There remained unabated at the end of the previous year two defects, making a total of 61 for the year, of which 60 were remedied, leaving one unabated at the end of the year.

The following table shows the number and character of the defects reported, and the number remedied.

Nature of Defects	Number Reported	Number Remedied
Brought forward from last year ...	2	...
Bakehouses requiring Limewashing ...	39	41
Damp Walls	3	3
Defective Sink Drains	5	5
Offensive Accumulation	2	1
Defective Troughing	1	1
Sink Drains to disconnect	4	4
Dirty Floors	3	3
Want of Proper Cover for Milk ...	1	1
Illegal occupation of underground Bakehouse	1	1
Total ...	61	60

Ice Cream Makers and Vendors.

The number of itinerant ice cream makers and vendors has very much diminished compared with a few years ago, which is a good thing, because this class of ice cream vendor is most difficult to supervise, and as a rule the least careful in the method of carrying out his business.

The increased powers obtained for dealing with the sanitary conditions, and other matters connected with the premises of ice cream makers, in the Halifax Cor-

poration Act of 1911, were put into operation during the year.

There were four complaints with reference to the dirty condition of premises, and one with reference to the presence of a drain inside, contrary to the requirements of the provisions of the above Act. These complaints received attention and were remedied.

The District Inspectors paid 60 visits to these premises during the year.

Offensive Trades.

Two new applications were received during the year to establish offensive trades, one being that of a bone boiler, and the other of a tripe boiler. After inspection of the premises, and the necessary alterations made, permission was granted in each case for the establishment of these trades.

The number of offensive trades carried on in the Borough under section 112 of the Public Health Act, 1875, were as follows :—Bone Boilers, 3 ; Blood Boiler, 1 ; Soap Boilers, 2 ; Tripe Boilers, 10, or a total of 16, an increase of two during the year.

The premises in which these trades are carried on were visited by the Veterinary Inspector, and were all found to be fairly well conducted.

In the case of two premises floors were found to be defective. These were ordered to be reconstructed and they are now in a more satisfactory condition.

Public Health Laboratory.

There were 68 specimens examined in the Public Health Laboratory, against 81 during the previous year.

The following table gives details regarding most of the specimens examined.

Disease	Number of Specimens	Results of examination	
		Positive	Negative
Tuberculosis (Sputum)	28	5	23
,, (Urine)	2	1	1
Diphtheria (Swabs)	34	8	26
Ringworm (Hair)	2	1	1
Typhoid (Widal's)	1	...	1
Total	67	15	52

One sample of the segments of a tapeworm was examined for other purposes than the above.

With regard to the examination of sputum, 17·8 per cent. of the specimens examined were found to be positive, against 9·5 during the previous year.

The proportion of diphtheria specimens found to be positive was 23·5, against 28·2 during the previous year. This disease was much less prevalent in the Borough.

Disinfection.

Owing to the fact that infectious disease was much less prevalent in the Borough during the year under review, the amount of work done under this heading was considerably less than had been the case during the previous year.

The steam disinfecting apparatus which is situated at the Fever Hospital, Stoney Royd, is used as a general disinfecting station for the town. There were 7,490

articles of bedding, clothing, &c., disinfected therein by steam, against 12,521 during the previous year.

The number of rooms in private houses fumigated with formaldehyde was 595, against 764 during the previous year. The formalin spray was also used where it was required.

There were 101 library and other books disinfected in the special apparatus provided for that purpose at the Hall Street Depot.

Disinfecting fluid was distributed as usual from the Health Office, free of charge, in 6 and 8 oz. bottles, to the occupiers of houses in which notifiable infectious disease broke out, and also where cases of phthisis occurred. There were 140 gallons so disposed of during the year, against 200 during the previous year, while about 60 gallons were sold, chiefly in pints, at the Hall Street Depot.

Schools and Infectious Disease.

Owing to the fact that there was less prevalence of infectious disease in the Borough during the year under review, there was considerably less interference with the work of the Elementary Day Schools from this cause, in fact no school was closed by the order of the Sanitary Authority during the year. I believe, however, the Infants' Departments of two or three schools were closed for a few weeks during May and June, by the School Medical Officer, on account of the prevalence of measles.

The following table gives a list of the schools affected with scarlet fever and diphtheria, and shows the number of cases reported in connection with each.

Name of School	Scarlet Fever	Diphtheria	Total
St. Augustine's	3	1	4
Battinson Road	3	1	4
Parkinson Lane	7	7	14
Sunnyside	8	...	8
Christ Church, Pellon ...	...	1	1
Moorside	2	...	2
Queen's Road	4	2	6
Haugh Shaw	5	...	5
Siddal	21	3	24
Portland Road	8	...	8
Holy Trinity	3	1	4
Parish Church	1	2	3
Salterhebble	2	1	3
Southowram	...	1	1
Council Secondary	1	...	1
Boothtown	4	1	5
St. Joseph's	3	1	4
Akroyd Place	3	3	6
Warley Road	3	9	12
Stafford Square	1	1	2
Lee Mount	3	4	7
Copley	11	...	11
Pellon Lane	1	1	2
Salterlee	5	...	5
St. Marie's	3	...	3
High School	...	1	1
All Saints	1	...	1
Warley St. John's	...	3	3
Total	106	44	150

On referring to the above table it will be observed that 44 cases of diphtheria occurred during the year among children of school age, against 35 of school age during the previous year.

No school was markedly affected with diphtheria during the year, and of the 81 cases of this disease reported, 54 per cent. were of school age, against 31 per cent. during the previous year.

Scarlet Fever, as would be expected, was less prevalent in the schools than during the previous year.

Siddal Council School was more particularly affected thereby, 21 cases having occurred during the year in children attending that school.

A rather larger percentage of the cases of scarlet fever reported were among children of school age, than during the previous year. Out of a total of 176 cases reported, 106 were children of school age, or a percentage of 60, against 52 during the previous year.

There were seven suspicious cases of fever reported to us by the Education Department. These were visited and inspected, but no definite case was discovered among them.

Furnished Rooms—Houses Let in Lodgings.

The number of registered furnished rooms in the Borough was 186, against 187 during the previous year.

These houses are inspected under bye-laws made with respect to houses let in lodgings, which the Halifax Corporation Act of 1905 extended to this class of room.

To these furnished rooms the Sanitary Inspectors paid 673 visits, and as a result, four were found to be dirty and one W.C. blocked. These defects were duly remedied.

House to House Inspection under the Housing and Town Planning Act.

A rather larger number of houses were visited in connection with house to house inspection than during

the previous year, a total of 774 having been reported on, against 582 during the year 1911.

Of this number 268 were found to have defects of some kind or other, while 506 were in a satisfactory condition.

The following is a list of the chief defects found.

Nature of Defects		Number Reported
Defective Drainage and Sanitary Fittings		219
Defective Flagging in yards ...		47
Structural Defects		48
W.C. and Ashes-tub-place accommodation	Defective ...	28
	Insanitary ..	18
	Insufficient	3
Overcrowded		4
Defective Light or Ventilation ...		4
Want of Cleanliness		4
Dampness		45
Others		10
Total		430

Of the 268 houses in which defects were found to exist, 220 were remedied during the year without the necessity of making Closing Orders, leaving 48 in which the necessary work had not been carried out at the end of the year. These latter will undoubtedly all be made fit for habitation without the necessity of making Closing Orders.

Six of the houses inspected during the year were considered to be in a state so dangerous or injurious to

health as to be unfit for human habitation, and representations were made to the local au hority with a view to the making of closing orders with regard to two of them. Closing orders were made in each case.

Three of the remaining four houses were closed by the owners without the necessity of making closing orders. The remaining house was only inspected on the last day of the year, and consequently the application for a closing order had to stand over to the current year.

Three houses, which had been closed by the order of your Committee during the previous year, were altered and improved, and put into a condition satisfactory to your Committee, and the closing orders were determined upon completion of the necessary work.

The owners of two houses in respect of which closing orders were made during 1911, appealed to the Local Government Board, who held an enquiry in the early part of the year. The Board upheld the action of your Committee, and directed that the costs of the appeal be paid by the Appellants.

The question of demolition was subsequently considered by your Committee. A difficulty arose through these houses forming as it were a part of a warehouse, and the owners, when they appeared before the Committee, undertook to add the same to the warehouse as soon as they found a tenant for the same, consequently no demolition order was made by your Committee.

The following is a summary of the work done in connection with house to house inspection during the year.

Number of houses inspected	774
Number of houses in which defects were found to exist	268
Number of houses found to be in a satisfactory condition	506
Number of houses in which defects were not remedied at the end of the year	48
Number of houses considered to be unfit for human habitation	6
Number of representations with a view to the making of closing orders	2
Number of closing orders made	2
Number of houses the defects in which were remedied without the making of closing orders	220
Number of houses which, after the making of closing orders, were put into a fit state for human habitation. Closing orders were made for these during the previous year	3
Number of houses closed as unfit for human habitation, including 3 houses closed by the landlord, without the necessity of making a closing order	5

Meteorology.

The Meteorological Station is under the charge of Mr. Green, the Chief Librarian, and is situated in the grounds of Belle Vue Library.

The altitude of the station is 625 feet above sea level.

There is no Sunshine Recorder in connection with this station, nor an Anemometer for registering the velocity of the wind.

This meteorological station was installed by the Corporation in the year 1892, and in connection therewith the following particulars, which date from that period, may be of interest.

Temperature.

Maximum in the Sun, 130°, on July 3rd, 1892.
Maximum in the Shade, 88·5°, on Aug. 9th, 1911.
Minimum in the Shade, 3°, on Feb. 8th, 1895.
Minimum on Grass, 1·2°, on Dec. 22nd, 1909.
Maximum 4ft. below the ground, 58° from Aug. 21st to 23rd, 1911.
Minimum 4ft. below the ground, 39°, in the years 1900-2-6-7-9:10.

Rainfall.

Greatest Daily Mean, 3·04in. on June 26th, 1895 (Heavy thunderstorm, continued for 3 hours, with extraordinary rainfall and hail.
Greatest number of rainy days in 1 year, 219 during 1903.
Smallest number of rainy days in 1 year, 145 during 1895.

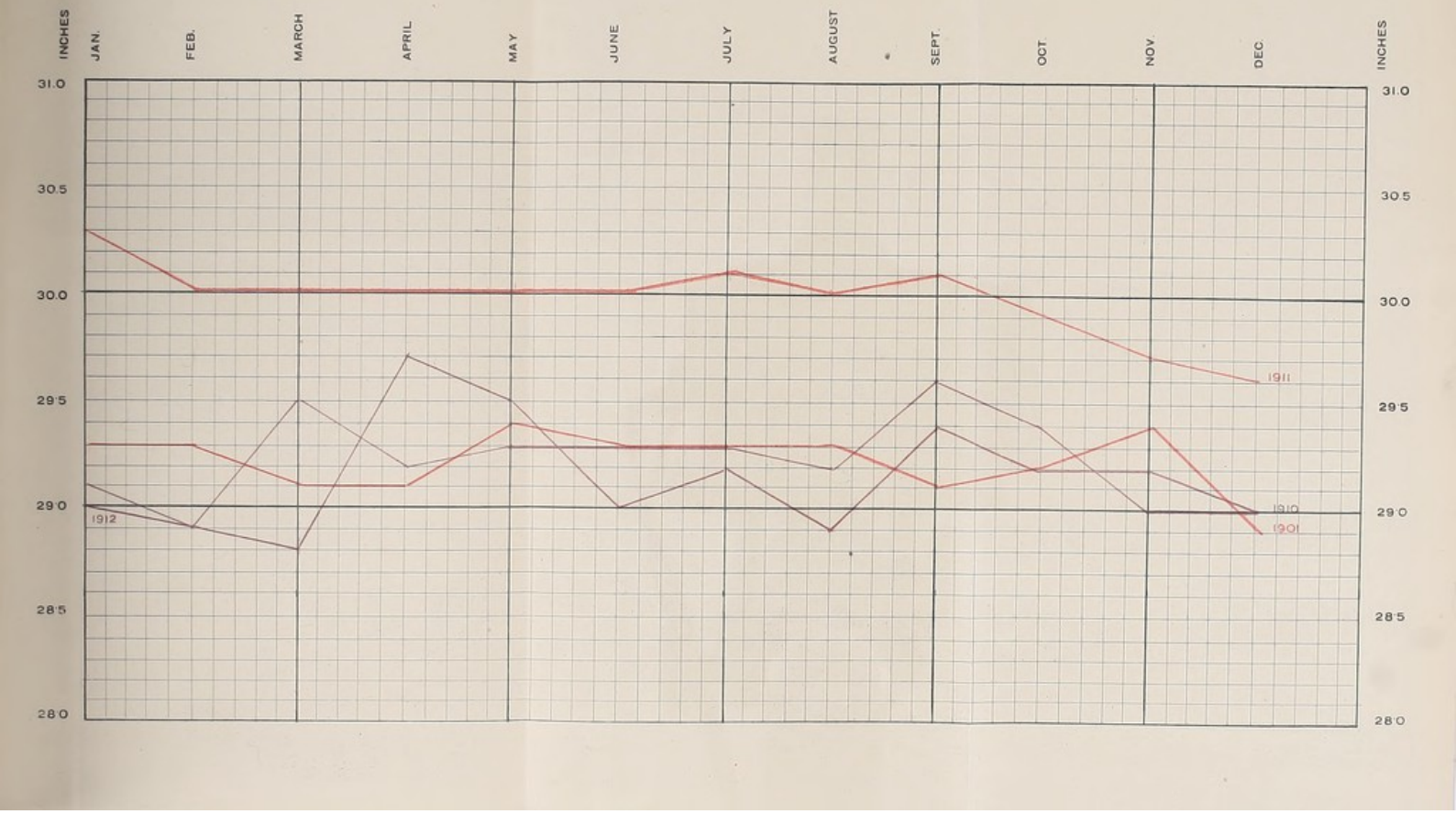
Barometer.

Highest reading, 30·534in. on Dec. 21st, 1906.
Lowest reading, 27·736in on Feb. 19th, 1900.
Average reading, 29·135 in.

Mr. Green kindly made a small chart for me, showing the average height of the Barometer during the year 1911, which covered the remarkable dry and hot summer, and also a chart for the years 1910 and 1912. I was so struck with the difference in the average barometric pressure of 1911, compared with the latter two years, that I also asked him to get me out a chart for 1901, which also covered a hot and dry summer. The chart for 1901 did not differ very much from 1910 and 1912, except that the chart showed that the barometer throughout the year kept a more even course. Mr. Green kindly combined these four tracings upon one chart for the purposes of this report, and the chart shows that the barometer during 1911 marked a very even course, and stood constantly from half an inch to one inch above the average of the other years referred to.

MOVEMENTS OF BAROMETER FOR YEARS 1901, 1910, 1911, 1912

(CORRECTED FOR TEMPERATURE).



Mr. Green has supplied me with a general summary of his observations as follows:—

General Summary of Meteorological Observations taken at the Public Library, Belle Vue, from January 1st, 1912, to December 31st, 1912.

By E. Green, Librarian.

LATITUDE OF STATION = 53° 43' N. LONGITUDE = 1° 52' W. HEIGHT ABOVE SEA LEVEL = 625 FEET.

1912. Month.	Pressure of Atmosphere in Month. Mean at 32° F. and Sea Level.	Range.	Temperature of Air in Month. Highest.	Lowest.	Range.	Mean. Of all Highest.	Of all Lowest.	Daily Range.	Mean Temperature. Air.	Dew Point.	Vapour. Elastic Force.	In a cubic foot of Air. Mean.	Mean Weight of Saturation.	Mean degree of Humidity Saturation=100.	Mean Weight of a cubic foot of Air.	Mean Reading of Thermometer. Maximum in Sun. Rays of Sun.	Minimum on Grass.	Wind. Estimated Strength.	Relative proportion of N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calms.	Mean amount of Cloud.	Rain. No. of Days it fell.	Amount Collected.	Remarks
	in.	in.	°	°	°	°	°	°	°	°	in.	gr.	gr.		gr.	°	°													in.	
January ...	29·754	1·532	50·0	18·6	31·4	40·5	32·6	7·9	37·3	35·3	0·206	2·3	0·3	91	542·1	47·8	29·8	1·2	4	9	1	9	2	6	7	6	7	7·5	20	5·44	The observations have
February ...	29·595	1·120	54·6	16·7	37·9	43·7	34·6	9·1	40·0	37·3	0·223	2·6	0·0	100	551·1	62·7	28·9	1·8	0	8	3	1	4	13	1	6	11	6·8	23	1·77	been reduced to mean
March ...	29·579	1·336	53·8	30·5	23·3	47·0	37·3	9·7	42·8	39·3	0·250	2·8	0·4	87	552·8	77·1	34·0	3·2	1	0	2	2	10	13	7	7	7	8·1	26	3·61	values by Glaisher's
April ...	30·473	0·842	65·2	28·2	37·0	52·4	36·9	15·5	44·4	37·4	0·224	2·6	0·8	74	546·4	94·9	32·5	1·10	3	14	1	7	0	3	3	14	2	6·9	7	1·07	Barometrical & Diurnal
May ...	30·280	0·738	68·2	32·0	36·2	56·7	42·4	14·3	50·3	42·6	0·276	3·1	1·1	74	535·5	95·6	30·2	1·5	2	10	1	3	2	2	8	21	5	8·1	14	3·00	Range Tables, and the
June ...	29·766	0·682	74·5	44·4	30·1	59·9	47·5	12·4	66·2	46·4	0·362	3·8	0·9	80	536·5	102·6	46·2	2·3	1	4	3	4	4	10	6	10	6	8·4	23	5·63	Hygrometrical results
July ...	29·917	0·892	79.7	47·5	32·2	63·7	50·8	12·9	57·9	49·3	0·360	4·0	1·1	78	535·5	99·1	49·5	1·9	3	12	6	6	3	6	6	7	3	8·0	17	4·63	have been deduced from
August ...	29·629	0·760	62·2	40·1	22·1	57·6	46·6	11·0	52·3	45·9	0·310	3·5	0·9	80	535·9	92·0	41·8	1·5	3	6	1	2	1	8	8	17	1	6·9	22	5·92	the seventh edition of
September ...	30·158	0·704	62·2	36·9	25·3	54·6	43·4	11·2	50·2	32·6	0·185	2·1	2·1	50	529·1	86·1	41·5	1·9	4	6	5	7	2	1	6	19	0	6·9	9	1·54	Hygrometrical Tables,
October ...	29·890	1·370	60·2	29·2	31·0	52·3	40·0	10·3	46·0	40·2	0·249	2·8	0·4	88	548·5	76·1	33·9	1·2	4	1	0	4	2	13	8	9	7	5·5	11	3·92	after corrections for
November ...	29·919	1·332	54·4	23·0	31·4	46·2	38·3	7·9	42·4	38·0	0·225	2·7	0·5	85	552·4	59·8	31·7	1·4	4	3	0	0	0	8	8	19	10	6·6	15	3·00	Index errors of the
December ...	29·763	1·256	53·6	23·0	30·6	47·2	37·3	10·9	41·5	36·5	0·220	2·6	0·4	88	551·8	52·3	33·7	1·6	0	1	1	0	7	20	10	3	12	6·9	21	4·51	Instruments employed.
Annual Means	29·893	1·047	61·5	30·8	30·7	51·8	40·6	11·0	47·6	40·6	0·257	2·9	0·7	81	543·9	78·8	36·1	1·7	2·4	6	2	3·7	3	8·6	6·5	11·5	5·9	7·2	208	44·04	

The Mean Monthly Readings of the Earth Thermometer, four feet below the surface, were as follows:—

January, 43° February, 41° March, 43° April, 44° May, 48° June, 51° July, 53° August, 54° September, 52° October, 49° November, 46° December, 44°

Highest Readings = 55° from July 16th to August 6th. Lowest Readings = 40° from February 8th to 18th.

Rain fell on 208 days, and measured 44·04 inches.

The summer of last year was very wet and rain fell on 208 days during the year.

The amount of rain collected during 1912 was 44·04 inches, against 29·01 during the previous year. This is the greatest amount collected since 1903, and with that exception is the highest ever recorded.

The following table gives the rainfall for the past 19 years.

Year	No. of Days Rain Fell	Amount of Rainfall
		inches.
1894	158	30·31
1895	149	33·78
1896	172	32·02
1897	187	29·72
1898	182	29·49
1899	153	35·33
1900	205	39·68
1901	179	29·41
1902	191	28·03
1903	219	44·25
1904	191	29·32
1905	187	25·94
1906	207	33·84
1907	208	34·00
1908	184	30·65
1909	199	35·69
1910	213	36·62
1911	196	29·01
1912	208	44·04

There are 10 stations at which the rainfall is collected and which are distributed over the gathering grounds of the Halifax Corporation. The following table shows the amount collected at each of these stations.

Heights above Sea Level in Feet.											
1912	1380 Walshaw Dean *	1350 Midgley Moor *	1325 Warley Moor *	1375 Ovenden Moor *	1040 Walshaw Dean Lodge	1050 Widdop	1060 Castle Carr Lodge	990 Ogden	815 Ramsden Wood	795 Albert	568 Gibbet
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
January ...	5·33	5·58	5·43	6·16	6·10	4·81	5·26	5·91	3·68	5·00	5·63
February ...	2·06	2·32	2·38	2·67	2·39	2·17	2·31	2·49	2·16	1·96	1·89
March ...	5·17	4·49	4·25	4·86	6·37	5·34	4·39	4·44	4·12	3·89	4·03
April ...	1·45	1·30	1·20	1·48	1·59	1·26	1·19	1·34	1·23	1·02	1·03
May ...	3·74	3·30	3·25	3·99	3·97	3·72	3·49	3·73	3·03	3·01	3·26
June ...	7·56	8·06	8·00	7·38	7·71	7·11	7·62	7·32	7·54	5·72	6·07
July ...	6·68	7·56	7·40	6·70	6·13	5·22	7·20	6·17	5·94	5·05	4·57
August ...	8·75	7·01	7 06	7·39	8·71	8·55	7·74	6·82	6·62	5·97	5·98
September ...	2·91	2·58	2·58	1·79	2·87	2·52	2·57	1·98	1·96	1·67	1·63
October ...	5·14	5·13	5·08	5·31	5·36	4·66	4·93	5·19	4·48	4·05	4·30
November ...	4·47	3·89	3·55	4·11	4·70	3·55	3·70	3·55	3·46	3·06	3·23
December ...	5·00	6·01	5·28	6·11	6·06	4·72	4·80	5·62	4·81	4·55	4·72
Totals ...	58·26	57·23	55·46	57·95	61·96	53·63	55·20	54·56	49·03	44·95	46·34

There was also a marked increase in the average rainfall over the area of the Halifax Corporation Waterworks, as the following table will show.

Average Rainfall over all the Guages,	1912	...	54·05
Do. do.	1911	...	38·26
			15·79

The average rainfall collected at the above stations is always greater than that collected at Belle Vue, and the difference for the year was 10·01 inches, against 9·25 inches for the previous year.

The collecting grounds of the Halifax reservoirs lie mostly on the west of the Borough, Widdop being some 15 or 16 miles away in that direction. It appears that the rainfall is greatest at Widdop, and the further we proceed east, towards the Borough, we find the rainfall gradually diminishes. The following table is interesting in this respect.

Station	Amount of Rainfall					
	1908. ins.	1909. ins.	1910. ins.	1911. ins.	1912. ins.	Averages
Widdop	38·19	42·31	47·58	40·53	53·63	44·44
Castle Carr... ...	39·42	43·07	44·96	37·04	55·20	43·93
Ramsden Wood ...	30·72	37·09	38·01	33·76	49·03	37·72
Belle Vue	30·65	35·69	36·62	29·01	44·04	35·20

Miscellaneous Matters.

The patients at the Borough Fever Hospital are under my professional care, to which I paid regular visits during the year, and frequently a second visit when necessary.

The Smallpox Hospital, Goux Depot, Hall Street Depot, and the various other departments under the control of your Committee were visited by me during the year from time to time.

I paid 16 visits to the Slaughterhouse in connection with the Veterinary Inspector for the purpose of giving advice regarding the seizure of meat, &c.

Several visits were also paid to Factories and Workshops, Common Lodging Houses, and the Wholesale Markets, and Schools.

Two of the premises in which offensive trades are carried on were visited by me, also seven bakehouses, and 11 other visits were paid for various purposes.

I made 47 special visits during the year to various parts of the district for inspection purposes, but only three visits were necessary in connection with suspected fever cases, as these diseases were not so prevalent in the Borough as had been the case during previous years.

The Tuberculosis Dispensary was opened in September last, and this necessitated a number of visits in connection with its preparation, fitting up, and furnishing for the special work in connection with the treatment of tuberculosis.

For the Tramways Committee I examine all new men before they are placed upon the permanent staff, as to their fitness or otherwise for the work, and also all men who had been off sick, before they are allowed to resume work. In this way I examined 137 men during the year, and granted a certificate in each case.

For the Highways and Gas Committees I have examined and reported upon several workmen in connection with the Workmen's Compensation Act.

Borough Fever Hospital.

On January 1st, 1912, there were remaining in the hospital one case of diphtheria, three of typhoid fever, and 15 of scarlet fever, or a total of 19 patients, and there were admitted during the year a total of 195 cases, including 71 from outside districts, against a total of 265, which included 56 non-residents during the previous year.

The following table shows the number that were admitted for each disease, and the mortality from the same.

Disease	Number Admitted	Deaths	Case Mortality per cent.
Diphtheria	30	...	...
Scarlet Fever	133	11	8·2
Enteric Fever	32	5	15·6
Total	195	16	...

On referring to the above table it will be observed that no deaths occurred in the hospital during the year from diphtheria, which is a record, at any rate since the figures regarding the cases admitted to the hospital have been kept, and this notwithstanding the fact that an average number of cases of diphtheria were admitted to the wards during the year.

The deathrate from scarlet fever was rather higher, while that from enteric fever was considerably less, the mortality per cent. for the previous year being, from diphtheria, 22·2, scarlet fever 3·4, and typhoid fever 24, respectively.

As has already been noted scarlet fever was much less prevalent in the Borough during the year, and a smaller number of cases were admitted to the hospital, viz., 133, against 287 for the previous year.

One scarlet fever patient died within 24 hours after admission during the year, and five of the deaths which occurred from scarlet fever, and one from typhoid, were of persons not belonging to the Borough.

The following table shows the number of cases that have been admitted to the Fever Hospital since the year 1881.

Year	Small-pox	Cholera	Typhus Fever	Typhoid Fever	Scarlet Fever	Diphtheria	Others	Total
1881	16			17	34		2	69
1882	13		3	24	15		5	60
1883	2		2	26	8		5	43
1884	1			29	23		2	45
1885	15		1	16	23		4	59
1886	3			18	24		3	48
1887	3			18	54		1	76
1888	5		1	25	28		7	66
1889	4			54	33			91
1890				35	39		7	81
1891		1		47	47		6	101
1892	188		1	17	15		1	222
1893	340			4	1			345
1894	15			15	39		1	70
1895				39	25		7	71
1896				56	30		20	106
1897				32	237		3	272
1898				28	341			369
1899				38	515			553
1900	3			44	250		9	306
1901	3			18	597	12	43	633
1902	1			30	365	7		403
1903	140			24	219	17	4	404
1904	84			22	349	25	6	486
1905	57			29	246	22		354
1906				20	110	30		160
1907				43	42	45	1	131
1908				36	145	26	1	208
1909				21	340	27		388
1910				17	167	53		237
1911			1	25	203	36		265
1912				32	133	30		195

The practice of detaining mild cases of scarlet fever in the hospital for four weeks only has continued during the year, and since the shorter period of detention in hospital was adopted, and the better method of discharge, we have had, if anything, less return cases of this disease.

I desire to record my appreciation of the manner in which the Matron, Miss Robison, has managed the Institution, and the unremitting care and attention which the nurses have bestowed upon the patients during the year.

Notification of Births Act.

The Notification of Births Act was adopted in March, 1908, and 1,627 births were notified, against 1,638 during the previous year.

The actual number of births registered was 1,828, so that 89 per cent. of the births which occurred in the Borough were notified, against 88 per cent. during the previous year.

It appears that quite a number of the children who died within an hour or two of their birth were not notified, and this accounts to some extent for the difference between the notified and the registered births.

There were 56 still-born infants reported during the year, against 90, which is the number supplied to me by the Registrars of the cemeteries, burial grounds, &c. It is most probable that a large number of those reported by the Registrars were very prematurely born, and this may account for some of them not having been reported.

Halifax Public Health Association.

The Committee of the above Association is constituted as follows:—

Alderman T. Hey, J.P., Chairman, Health Committee
Dr. J. T. Neech, Medical Officer of Health
Miss Alice M. Thompson. Lady Health Visitor
Mrs. E. N. Whitley, Lady Superintendent

Mrs. C. Smithson,	,,	,,
Mrs. J. Collinson,	,,	,,
Mrs. Hack,	,,	,,
Mrs. Crabtree,	,,	,,
Mrs. G. H. Smith	Mrs. Ward	
Mr. A. W. Whitley	Mrs. A. Clay	

Miss Thompson, the lady health visitor, continues still to act as secretary to the Association.

The committee meets periodically to transact the business of the Association, and an Annual Public Meeting is also held.

The Annual Public Meeting was presided over by His Worship the Mayor, was well attended, and was addressed by Dr. J. Spottiswood Cameron, Medical Officer of Health of Leeds.

The ladies connected with this Association continue to render invaluable service in connection with the work they are carrying out.

The voluntary Assistant Lady Visitors continue from time to time to visit a certain number of the babies for a period of 12 months after their birth.

The Borough is divided into five districts in order to facilitate the carrying out of this work, and to each district a certain number of these lady visitors are assigned, under the charge of a lady superintendent.

The following table gives the names of the lady superintendents, and the districts which they represent.

District.	Lady Superintendent
Ovenden, Pellon and Kingston Wards	Mrs. E. N. Whitley
Akroydon and North Wards	Mrs. C. Smithson
Central and West Wards	Mrs. J. Collinson
South and East Wards ...	Mrs. Hack
Skircoat and Southowram Wards	Mrs. Crabtree

The following are the names of the voluntary assistant lady visitors.

Mrs. Stirk,
Mrs. A. Seed,
Mrs. Wilson,
Mrs. Smith,
Mrs. Meskimmon,
Mrs. Ackroyd.
Mrs. Horsfall,
Mrs. Wadsworth,
Mrs. G. Seed,
Mrs. Cockroft,
Mrs. C. Mitchell,
Mrs. Whitaker.
Mrs. Hepworth,
Mrs. Taylor,
Mrs. Balme,
Mrs. Watkins,
Mrs. Holroyd,
Mrs. Mitchell,
Mrs. Burnett,
Mrs. Hyde,
Mrs. Wilson,
Mrs. Binns,
Mrs. Haigh,
Mrs. Sharp,
Mrs. Gough,
Mrs. Mitchell,
Mrs. Bonner,
Mrs. Parkinson,
Mrs. Wade,
Mrs. Kidd,
Mrs. Shuttleworth,
Mrs. Hanson,
Mrs. Culpan,
Mrs. Hirst,

The total number of visits paid by the voluntary lady visitors was 1,411, against 1,320 during the previous year.

In my opinion the good work which these ladies are doing is of considerable value to the infant life of the town.

LADY HEALTH VISITOR'S REPORT.

Miss A. M. Thompson, the Lady Health Visitor, has submitted to me the following report on the work she has carried out during the year.

There were 1,068 visits paid by me to notified births, and 400 to Guild cases and others, against 909 and 500 respectively during the previous year.

In the course of my visitation I found 121 houses fairly clean, 45 dirty, and the remainder clean.

The number of subsequent visits paid by the assistant visitors were as follows :—

Ovenden, Pellon, and Kingston Wards	95
Akroydon and North Wards	250
Central and West Wards	394
South and East Wards	372
Skircoat and Southowram Wards ...	300

Of the 1,627 births notified, 923 were attended by medical men, the rest by midwives.

Out of 704 of the above notified births, 675 were breast fed, 29 only being fed with the bottle at the first visit. A very large proportion of infants are breast fed for 12 months.

Our Nourishment Scheme, for mother's to have a daily meal before or after confinement is being increasingly useful, 57 of the meal tickets having been distributed this year, which represents 584 meals.

The Babies Welcome Club has kept up its reputation. This is a Club whereby mothers save, in weekly payments, sums ranging from 2s. to £2. We allow 1d. for every shilling saved, the money being drawn out at the time of confinement. Sixty-one members have joined this year, against 60 last year.

We feared a decrease of membership on account of the Maternity Benefit under the National Insurance Act, but so far the mothers have continued to pay in their small savings.

Our weekly sewing meetings, for mothers to make babies' garments, were held during suitable weather. The mothers pay ½d per week for which they receive a bun and a cup of tea. Material is provided, and when the garment is made the maker is allowed to take it home. In this way we feel we are helping our mothers to help themselves.

Our Helpers kindly come down once a month to help with the babies, or to make garments which are sold at a small charge to the mothers. We have taken £3 7s. 10½d. in weekly pence and for garments sold. The cost of material, &c., has been £3 2s. 11d., thus leaving a small balance in hand.

We have a quarterly plan, each Helper knowing the date she is expected to be down at the meeting.

We are much indebted to our Lady Superintendents for providing teas, and to the ladies who have so kindly given material and helped at the meetings. Our thanks are also due to Dr. Burn for allowing us the use of a room at the Mission of the Good Shepherd.

During the winter months the meetings were given up, but as we were anxious to keep in touch with the mothers during this period, we started weekly cooking demonstrations in their homes, each being allowed to invite a few friends. Our object was to show them how to cook nourishing meals at a small cost, and with the cooking utensils they have to hand.

The favourite dinner has been a boned breast of mutton stuffed with sage and onions, roasted potatoes, and a pudding of tapioca cooked in water, with apples, rhubarb, plums, or any fruit in season. This costs 1s. and makes two dinners for five people, as the bones, boiled for hours with lentils, peas, or beans, make a nourishing soup.

We hope, by means of these demonstrations, to instil into the minds of our mothers the necessity of giving the right sort of food to their children, and also teach them that it is not economy to feed them on bread, fish, and chips.

We are especially indebted to Mrs. Wilson and Mrs. Watkins for this work. They have given up Tuesday afternoons during the winter, and have visited 18 homes. Their opinion is that you get in such close touch with the mothers that you can influence them in a way you could not do otherwise. One mother was so delighted with the dinner cooked at the house, and left behind for the family to consume, that she influenced all in the Court to try it for themselves.

This year we applied to the Clerk of the Board of Guardians for a list of the Poor Law maternity cases when they leave the hospital. These now come to hand and are kept under supervision. They are the most difficult cases we have to deal with as they are constantly on the move. This is the class which undoubtedly goes to swell, to a large extent, the infant mortality rate.

Our Association has now been in existence five years, and it is interesting to note the decrease in the infant mortality during that time.

1908	...	102	deaths per 1,000 births.
1909	...	99	,, ,, ,,
1910	...	89	,, ,, ,,
1911	...	123	,, ,, ,, (Epidemic of Diarrhœa).
1912	...	81	,, ,, ,,

The latter is the lowest rate on record, and we feel that the time has now come when we might, with advantage, extend the work. Up to the present our visiting has ceased when the infant has reached one year of age, but in future we anticipate extending it to a period of two years. Thus the supervision will continue at a most important time, when the infant may be showing signs of Rickets, or other preventable diseases. This will entail a considerable amount of extra work, but our Visitors have become so interested that they are willing to give the extra time and energy.

In conclusion it may be said that the work amongst mothers and infants is as necessary to-day as ever. The pathetic ignorance of some mothers, and the indifference of others, make it most necessary that some outside influence should step in for the betterment of the

conditions under which infants are brought up. We sincerely believe that the Visitors of the Health Association provide this influence, and by their friendly visits and advice, sow the seeds of a better understanding of the care of infants, and give to the little lives a better chance from the beginning for future health and strength.

Midwives Act.

The Midwives' Guild, formed under the auspices of our Association, is doing good work. Monthly lectures are given by a trained Midwife, and are much appreciated by those who attend.

I am glad to be able now to report that almost without exception the midwives are daily taking the temperature and pulse of their patients during the lying-in period.

I paid 54 visits to the midwives during the year under review, and as a result have obtained the following particulars relative to their case books, of which some of them are exceedingly well kept.

Number on Register	Case Books			
	Well kept	Fairly well kept	Not Up-to-date	No case book
25	15	6	2	2

Two of the midwives whose registers were not up-to-date, cannot themselves write and are dependent upon relatives to write up their cases.

Of the two who did not possess a case book, one is employed as a monthly nurse, and the other attends relatives only, having really ceased to practise. As a matter of fact she did not attend any case during the year.

The midwives cordially support my efforts in advising the mother in the care of herself and infant.

There were 25 midwives who notified their intention to practise within the Borough during the year, two of whom are qualified by examination, the rest by long practise.

There were three notices received during the year of sending for medical aid, and 56 of still-born infants.

The following is a list of the midwives registered at the Health Office during the year 1912.

Name	Address
Sutcliffe Ellen	6, Spindle Street
Halstead Frances Ellen ...	3, Aspinall Street East, Siddal
Warren Harriet	17, Spring Grove
Lake Lucy	31, Stump Cross
Connew Sarah	22, Clay Street, Hanson Lane
Arnold Mary Ann.. ...	14, Exchange Street
Ogden Emma	42, Burnley Road
Robinson Mary Ann ...	14, Ashbourne Grove
Shelley Emelina	6, Ellen Royd
Crowther Hannah Elizabeth	39, Hammond Street
Wilson Elizabeth Ann ...	1, Shoesmith's Buildings
Marsland Emma	16, Cherry Street
Aaron Hannah	7, Lane Ends, Wheatley
Blakey Louisa	33, Commercial Road
Crossley Hannah	25, Fairview terrace
Smith Clara	40, Winding Road
Wade Hannah	Smith's Arms, Corporation St.
Milner Mary Hannah ...	8, Chestnut Street
Woodhead Fanny... ...	40, Chestnut Street
Smith Emma	21, Causeway Foot
Wood Mary Elizabeth ...	9, Fern Street, Boothtown
Wade	66, St. Peter Street
Brook Emma	5, Hope Street, Shelf
Crossley Minnie	38, Taylor Street
Singleton M. E.	2, Thorn View, Luddenden

VETERINARY INSPECTOR'S REPORT.

Dairies, Cowsheds, and Milkshops.

Mr. J. Pollard, M.R.C.V.S., D.V.S.M., has submitted to me the following report on the work which he has carried out during the year.

The number of Cowsheds and Milkshops on the Register is as follows :—

Cowsheds	507
Milkshops	68
	575

This number is a decrease of three in the number of cowsheds, and one in the number of milkshops.

There were 359 Dairy Farmers and Purveyors of Milk on the register, against 360 during 1911.

In accordance with the usual practice, a number of cowsheds which did not conform to the regulations were selected for alteration or reconstruction, and six cowsheds were so dealt with during the year, which number, together with 116 cowsheds previously dealt with in this way, make a total of 122 cowsheds which now comply with the requirements of the regulations.

The past year has been one which will stand out in the memory of cow-keepers on account of the outbreak of Foot and Mouth Disease in several parts of the country and Ireland, which necessitated the restriction

of movement of cattle, thus preventing them from obtaining their supplies, and consequently increasing the price of newly-calven cows considerably; also on account of the high price of feeding stuffs.

We seem to make very little progress in the matter of improvements under which the milk is collected. Just to quote an instance—When entering up the particulars of the result of inspection of one lot of cows, I had to report them as being in a dirty condition. Reference to an entry of a visit made two years previously showed the same report. The attention of the cowkeeper was drawn to the fact, and usually confirmed in writing, but they appear to ignore the warning.

Repeated warnings seem to lose their effect. Obviously the only way to improve matters is to take legal proceedings against the offenders as has been done in Dublin, where cases of prosecution are recorded for milking cows, with dirty hands, dirty overalls, and cows in a dirty condition.

I am afraid the public, and even public institutions, do not take much interest as to the condition of their milk supply. At the present time, milk—provided it does not fall below the standard set by the Board of Agriculture—is all considered of the same value, irrespective of any other conditions, such as the class of cow, feeding, buildings, cleanliness, &c.

The question of a pure milk supply has been the subject of much discussion in the Press, and the remedy

suggested was by means of granting certificates to those who are considered to be carrying on their business under satisfactory conditions.

In the course of inspection I have found there has been a tendency to keep more cows than the farm would carry, with the result that extra cows have been kept in unsuitable buildings.

During the past year I have not seen any typical cases of tubercular udder. Samples have been taken from four cows and forwarded for the biological test. Result negative.

While the samples were negative, more frequent inspection and examination of cows would be desirable, as much can happen between two visits, particularly if the cows are only seen once a year. I have seen cows become wasters, due to tuberculosis, in less than two months from purchase, and for which a good market price had been paid; also for tubercular udders to become patent within that time.

During the year under review I paid 392 visits, and the Inspector for Illingworth district 483 visits, a total of 875, to the various cowsheds in the Borough, and the District Inspectors paid 173 visits to the registered milkshops.

In consequence of these visits, a total of 66 defects were discovered and reported, and 63 remedied, as the following table will show.

Nature of Defects	Number Reported	Number Remedied
Not Registered	2	2
Want of Light	9	7
„ Airspace	5	5
„ Ventilation	5	4
Defective Floors	3	4
Dirty Stands	1	1
Cowsheds to Limewash	30	30
Overflowing Liquid Manure Tanks ...	5	6
Defective Middensteads	3	3
Defective Made-up & Untrapped Drains	3	...
Drain inside Cowshed	...	1
Total ..	66	63

During the past year 1,092 cows were individually examined, against 1572, during the previous year, being 480 fewer, although the number does not include those inspected during the Foot and Mouth Disease outbreaks.

The reason of few cows being individually examined was due to other calls on my services, and to the fact that the cows were grazed out later than usual.

In 5 cases were cows found to be affected with some abnormality of the udder.

Three cows were clinically tuberculous and were removed from the cowsheds, two being destroyed at the knackers, one destination unknown.

One case of Johnes' disease was also seen in the course of inspection, and the affected animal was destroyed.

Details of the above inspections are set out in the following tables.

INSPECTION OF CATTLE.

Date of Inspection	No. of Folio	Cattle and Condition			Condition of Shed	Remarks
		Number Examined	Udders Diseased	General Condition		
Jan. 10	5	13		Fair, several dirty	Poor	
,, 10	5	13	1	Good	Good	*Induration of one quarter
,, 10	5	13		,,	Moderate	
,, 24	17	8		Fair	Good	
,, 24	17	8		Fair, several dirty	Moderate	
,, 24	17	4		Good	,,	
,, 24	17	14		,,	Poor	
,, 30	21	8		Fair, several dirty	Moderate	
,, 30	21	13		,, ,,	1 Moderate, 2 poor	
,, 30	21	12		,, ,,	Good	
,, 30	21	5		,, ,,	,,	
Feb 1	25	2		Fair	Poor	
,, 1	25	8		,,	,,	
,, 5	27	19		Good, few dirty	Good	
,, 5	28	12		Fair	Bad	
,, 5	32	4		,,	Moderate, but dirty	
,, 9	32	6		,,	Poor	
,, 9	32	4		Fair, but dirty	Moderate	
,, 9	32	9		Good	1 Moderate, 1 poor	
March 1	48	9		Fair, 2 dirty	,, ,,	
,, 1	48	8		Fair, few dirty	Moderate	
,, 1	48	4		,, ,,	,,	
,, 1	48	5		Fair	,,	

March 1	48	12		Fair, few dirty	Poor	
„ 6	52	5		Fair	Moderate	
„ 6	52	12		Good, several dirty	1 Moderate, 2 poor	
„ 7	53	11		Good, few dirty	Poor	
„ 7	53	15		Fair, several dirty	1 Moderate, 1 poor	
„ 7	53	17		Fair	Moderate	
„ 7	53	5		„	Poor	
„ 7	53	5		Thin and dirty	„	
„ 7	53	10		Fair	1 Moderate, 1 poor	
„ 7	53	11		Good	Moderate	
„ 22	65	6		5 Good, *1 thin	„	*Suspected tubercular
„ 22	65	34		Good	2 Moderate, 3 poor	
„ 22	65	11	*1	Fair	1 Moderate, 1 poor	*Indurated quarter
„ 22	65	17		„	Moderate	
„ 22	65	8		„	Good	*Deficient in ventilation, being stuffed up
May 10	94	25		Good	Poor	
„ 24	103	4		Thin, but healthy	Moderate	
„ 24	103	6		Fair	Poor	
June 5	110	8		„	1 Moderate, 1 poor	
„ 5	110	4		„	Moderate	
„ 19	118	16		Good	„	
„ 19	118	3		Fair	„	
„ 19	118	8		„	„	
„ 19	118	7	1	7 Good, *1 thin	„	*Clinically tuberculous—destination knackers
„ 20	119	9		Fair	„	
„ 20	119	6		„	Poor	
„ 27	124	18		„	2 Good, 1 Moderate	
„ 27	124	4		„	Poor	
„ 27	124	8		„	„	

INSPECTION OF CATTLE.

Date of Inspection	No. of Folio	Cattle and Condition			Condition of Shed	Remarks
		Number Examined	Udders Diseased	General Condition		
June 28	125	4		Fair	Poor	
July 3	128	14		Good	,,	
,, 4	129	9		Fair	,,	
,, 4	129	20		Good	Moderate	
,, 4	129	3		Fair	Poor	
,, 4	129	8		,,	,,	
,, 5	130	2		Good		
,, 5	130	17		Fair	At grass	
,, 5	130	2		,,	,,	
,, 5	130	15		,,	,,	
,, 5	130	2		,,	,,	
,, 5	130	12		,,	,,	
,, 5	130	3		,,	,,	
,, 6	131	8		,,	,,	
,, 6	131	2		,,	,,	
,, 9	132	11		,,	,,	
,, 9	132	2		Good	,,	
,, 10	133	3		Fair	Moderate	
,, 10	133	11		Good	Good	
,, 10	133	11		,,	,,	Stands dirty
,, 12	134	1		Thin, consider tubercular	Poor	Removed, destination unknown
,, 15	135	9		Fair		
,, 16	135	20		Good		

,,	22	140	1		Emaciated, clinically tuberculous		Knackers
Oct.	16	187	13		Fair, 2 dirty	3 Poor	
,,	18	189	5		,, ,,	Moderate	
,,	18	189	10		,, ,,	Good	
,,	18	189	2		,, ,,	,,	
,,	21	190	9		,, ,,	Moderate	
,,	21	190	5		,, ,,	,,	
,,	21	190	8		,, ,,	,,	
,,	23	192	18		Good	,,	
,,	24	193	18		Fair, several dirty	2 Good, 1 moderate	
,,	24	193	8		Fair, few dirty	Poor	
,,	24	193	3		Fair	Moderate	
,,	31	197	28	2	Fair, few dirty	3 Poor, not re-limewashed	*2 cows with diseased udders
,,	31	197	13		Fair	1 Moderate, 1 poor	Not re-limewashed
Nov	4	199	2		2 with diseased udders		Samples taken not tuberculous
,,	7	201	13		Good, several dirty	Good	
,,	8	202	8		Fair	2 Poor	
,,	8	202	14		Good	Good	
,,	8	202	14		,,	2 Moderate, 1 poor	Not re-limewashed
,,	15	207	12		Fair, several dirty	Good	
,,	15	207	14		Good, several dirty	1 Good, 2 poor	
,,	15	207	9		Fair, but dirty	1 Moderate, 1 poor	
,,	15	207	8		,, ,,	1 Moderate, 1 good	Not re-limewashed
,,	21	211	13		Good and clean	Moderate	
,,	21	211	5		Fair, but dirty	,,	
,,	21	211	6		Fair	Good	
,,	21	211	7		Fair, several dirty	Moderate	
,,	21	211	6		Good	Good	Not re-limewashed
,,	22	212	21		Fair, several dirty	1 Moderate, 2 poor	Not re-limewashed

Inspection of Cattle—*Continued.*

Date of Inspection	No. of Folio	Cattle and Condition			Condition of Shed	Remarks
		Number Examined	Udders Diseased	General Condition		
Nov. 27	215	28		Good	2 Moderate, 3 poor	
,, 27	215	8		,,	Bad	
,, 27	215	4		,,	Poor	
Dec 2	218	6		Fair	,,	
,, 2	218	2		Good	,,	
,, 2	218	4		,,	,,	
,, 3	219	9		Fair, but few dirty	Moderate	
,, 6	221	20		Good	,,	
,, 6	221	6		,,	,,	
,, 11	224	13		Fair	3 Poor	
,, 11	224	20		Good	3 Moderate	
,, 12	225	14		13 Fair, *1 emaciated	Moderate	*Suspect Johne's disease

Slaughterhouses.

There are eight private slaughterhouses in the Borough, being the same number as the previous year. All have been kept in a fairly satisfactory condition.

During the year I have paid 1,045 visits to the abattoirs, and the actual number of animals slaughtered there, together with the approximate number dealt with in private slaughterhouses during the year was as follows :—

Public Slaughterhouses				
Cattle	Calves	Sheep and Lambs	Pigs	Total
6,957	3,525	20,661	6,208	37,351
Private Slaughterhouses (Approximate)				
308	30	1,120	60	1,518

None of the animals slaughtered in private slaughterhouses during the year were condemned.

There were 543 separate seizures of meat and offal during the year, and the following table shows the number of carcases condemned, and the total weight of the same.

	Cattle	Calves	Sheep & Lambs	Pigs	Total
Number of Animals killed	7,265	3,555	21,781	6,268	38,869
Do. condemned	25	11	11	58	105
Weight of those condemned in lbs. ...	11,040	500	515	5,638	17,693

The following table furnishes particulars of the diseases and other conditions which caused the condemnation of the meat during the year.

	Parturition	Tuberculosis	Inflammatory Diseases	Jaundice	Rickets	Dropsical	Immature	Septicæmia	Rheumatism	Cadavers	Otherwise unsound	Decomposition
Cattle	1	19	3								2	
Calves			2	1			1	1		1	5	
Sheep			1			6				3	1	
Pigs		37	4	6	4				2		5	
Rabbits												7
Turkeys												17

In addition to the above there were 25 seizures of fish, fruit, &c., and the following table shows the weight of the various kinds of food destroyed.

Kinds of Food Destroyed	Quantity in lbs.
25 Carcases of Beef	11040
Beef not in Carcase	381
11 Carcases of Veal	500
11 Carcases of Mutton	515
Mutton not in Carcase	71
58 Carcases of Pork	5582
Pork not in Carcase	1356
7 Rabbits	13
17 Turkeys	196
Fish	4861
Fruit	800
Other Foods	4070
Offal	8625
Total	38010

The total amount of meat destroyed on account of tuberculosis was greater in weight than the previous year, although the number of carcases of beasts condemned were more, the percentage is exceedingly small, being ·26, especially when it is borne in mind that the majority of bovines slaughtered are cows.

Total amount of meat destroyed...	...	28,335 lbs.
Total amount of meat destroyed on account of tuberculosis ...	13,581 lbs.	
Total amount of offal destroyed on account of tuberculosis ...	6,518 lbs.	
Total amount destroyed on account of tuberculosis	...	20,099 lbs.
Total amount destroyed from other causes...		8,236 lbs.

The great trouble with meat inspection is the want of some uniformity of standard, which is the cause of much discontent among meat traders generally.

The greater part of the meat destroyed during the year was voluntarily surrendered by the owner for destruction, and in 11 cases only was it necessary to get a Justice's Order.

There was one prosecution during the past year on account of depositing and exposing for sale some unsound meat. Penalty £10 and costs. Another seizure was made with that view, but not proceeded with.

Number of visits made during the year.

Description of Premises	Number of Visits
Public Slaughterhouses	1045
Private Slaughterhouses	100
Borough Market	324
Wholesale Market	307
Fasting Sheds...	246
Potted Meat Houses	190
Tripe Boiling Houses	96
Butchers' Shops	2405
Fried Fish Shops	60
Cowsheds	392
Other Visits	179
Total	5344

In addition to the above, I have paid frequent visits of attendance on the horses of the Health Committee, at the Hall Street and Goux Depots; examined new purchases, and also had frequent calls on my services by other Committees.

At the commencement of the year I was appointed Veterinary Inspector under the Contagious Diseases of Animals Acts, which increased my duties considerably, particularly so in July last, when cattle were brought into the district from areas and markets where outbreaks of Foot and Mouth disease had occurred, and necessitated being under observation for some time.

SALE OF FOOD AND DRUGS ACTS.

Mr. J. A. Dewhirst, F.I.C., F.C.S., the Borough Analyst, has submitted to me the following report upon the samples he has analysed for your Committee during the year under review.

There were 250 samples of food, drinks, and drugs analysed during the year 1912. The following table gives the number analysed per 1,000 of the population in some recent years, and the percentage of adulteration.

Year	Number of Samples Analysed	Percentage Adulterated	Estimated Population of the Borough	Number of Samples Analysed per 1,000 of the Population
1896	218	3·2	94,764	2·30
1900	210	4·7	101,187	2·07
1906	230	10·4	105,000	2·19
1910	251	6·0	101,500	2·47
1911	246	4·9	102,000	2·41
1912	250	5·6	102,000	2·45

The proportion taken throughout the Country shows a steady rise each year, indicating continual increase in the importance attached to the work. In

Halifax the sampling now approaches fairly closely to the average of the rest of the country.

The following table shows the kind of samples dealt with, together with the results of the analyses.

Article	Total	Genuine	Adulterated	Doubtful	Percentage adulterated
Milk	126	115	9	2	7·1
Butter	17	15	2	0	11·7
Margarine	12	12	0	0	·0
Vinegar	9	7	1	1	11·1
Rice	12	10	0	2	·0
Cheshire Cheese	8	8	0	0	·0
Beer	16	15	0	1	·0
Baking Powder	12	12	0	0	·0
Tinned Peas	1	1	0	0	·0
Dried Apricots	1	1	0	0	·0
Olive Oil	12	11	1	0	8·3
Ground Ginger	12	12	0	0	·0
Cream of Tartar	12	11	1	0	8·3
Totals ...	250	230	14	6	5·6

The percentage of adulteration was rather higher than in 1911. In the country as a whole the percentage of adulteration was 8·7. Again taking the country as a whole, it is seen that since 1877 the percentage of adulteration, in quinquennial periods, has steadily decreased, as follows:—16·2, 13·9, 11·7, 10·6, 9·0, 8·5, 8·2 per cent.

There were four instances of prosecution in Halifax resulting in the infliction of fines and costs amounting to £19 1s. 6d.

One of the cases was a substitution of margarine for butter, and the other three were for deficient milk. A smart fine of £10, with 10s. 6d. costs, was imposed on a flagrant milk sophisticator.

A larger variety of commodities were sampled in 1912 than in recent years, a matter of satisfaction.

Of the samples taken, eight classes were free from adulteration, though of these two came under the doubtful heading. Those quite free from complaint were margarine, Cheshire cheese, baking powder, tinned peas, dried apricots, and ground ginger.

Milk always seems to retain an unenviable place in the realm of adulteration, though it tends to improve as the years go on, not merely here, but elsewhere. It is still far from satisfactory however, apart from the question of its cream or water content.

Butter was the only other article with more than one case of adulteration. This important food has a

fascination for the scientific adulterator, who continues to devote his skill to "improving" it. The analyst, however, is also at work. New methods are constantly being devised to detect smaller and smaller additions of foreign fats with greater and greater certainty. Much trouble is caused us by the irresponsible variations in chemical quality indulged in, altogether against her own interests, by the frisky animal who should have the whole trade in her own hands, metaphorically speaking. The moisture in butter, which in normal specimens used to be 10 to 11 per cent, now usually approaches 16 per cent. since the limit was put at that figure.

With regard to baking powder, we were a little fortunate, I think, in finding no objectionable sample, even in so few as a total of twelve. The increasing use of a cheaper acid constituent than the old tartaric acid, or cream of tartar, gives rise to the presence of notable quantities of sulphate of lime. better known as plaster of paris, unless care is taken to avoid the inferior qualities of superphosphate, or acid-phosphate of calcium.

Vinegar, despite its cheapness, can be made still cheaper, of a sort. So much dispute has arisen on the question, and so persistently has the Local Government Board been bombarded from all sides for its decision, that, whilst declining to fix a fully comprehensive and definitely limiting standard, the Board has announced that, in its opinion, the following definitions might properly be adopted, namely :—" Malt Vinegar is derived wholly from malted barley, or wholly from cereals, the starch of which has been saccharified by the diastase of malt. It is a liquid derived wholly from alcoholic and

acetous fermentations. It shall contain not less than 4 per cent. of acetic acid."

This definition appears to recognise the use of a minimum of malt, whilst any proportion of damaged rice and Indian corn can be employed which a maker finds possible. It may also be coloured with burnt sugar. It does rule out damaged potatoes however, and wood vinegar, or artificially or chemically prepared or distilled acetic acid. We must be thankful for this. So long as beer is allowed to be made from rice, indian corn, and manufactured sugar, &c., I did not see how it was possible logically to restrict vinegar makers within narrower bounds.

Of the olive oil samples, one was adulterated. It was indeed simply castor oil, and had evidently been supplied in pure error. I can understand a small boy taking a dose of olive oil in mistake for castor with surprising gusto, but the reverse, in a salad for instance! Olive oil, however becomes more and more adulterated, and one would not have to travel far, I fear, to find some containing arachis or nut oil, which is the latest addition, and one not detected by partial examination only. In this connection some observations of *The Lancet* are appropriate :—" The remuneration of the Public Analyst has seldom been upon a scale consistent with the training, skill, and experience which are required of him; but now the practice of adulteration is becoming such a refinement, requiring a very elaborate series of operations for its detection, the fees in many instances are wholly inadequate. The Public Analyst's work is now of the highest scientific order; it must be done by a competent and conscientious man, otherwise the administration of the food laws must fall into disrepute."

In the country generally some of the newer phases of adulteration mentioned in my last year's report were continued and extended, a few coming into special prominence. Under this head must be included the bleaching of flour, which has received special attention. Another report has been issued by the Local Government Board on this subject, namely on "The nature of the colouring matter of flour, and its relation to processes of natural and artificial bleaching," and, owing to strong representations, we have been promised by Mr. John Burns, a Bill dealing with pure flour and pure bread, amongst other things. Although definite evidence against the bleached flour is difficult to obtain, there seems to be little doubt that bleaching does flour harm rather than good, in the direction of its digestibility and nutritive properties. It is unfortunate that the practice has been allowed to extend so widely, but this has happened so quickly that action could scarcely have been taken sooner.

The other flour improvers are more definitely suspicious. At the best it is no satisfaction to the ordinary buyer of bread to learn that preparations are sold to enable Bakers to get 10 to 15 more loaves per sack of flour than before, the obvious result being that the resulting loaves have each less nutriment in them.

It may be of interest to state that the flour bleaching above referred to is brought about by the action of nitrogen peroxide gas, generated electrically in air, and mixed with the flour in an agitator.

The presence of added excess of cocoa shell in "Cocoa" has exercised the minds of many, and this

practice cannot be defended, in fact prosecutions are readily brought to a successful issue wherever instituted. At the same time I cannot see the validity of adding sugar or starch to cocoa.

Sugar, dyed to represent Demerara, is commonly sold, and in some districts a ticket is enclosed with the purchase declaring its real nature. This is really contrary to the spirit of the Food and Drugs Acts, the leading principle of which is that a person should obtain what he asks for, not a different article "covered" by a declaration, an artifice too frequently now adopted.

This is perhaps specially observable in regard to spirits. A label is displayed to the effect that their genuineness is not guaranteed, and then everything goes smoothly. The alcoholic strength of spirits is, however, another matter, which cannot escape by declaration, and whereas the adulteration by water used to be 34·9 per cent. (1875), it has now fallen to 10·1 per cent., still high enough. truly.

The question of preservatives is an ever vexed one, and always with us. Whilst the use of any of them in milk and other foods for the young is quite prohibited, the principle seems to be established that, within limits, they are admissable in food for adults. The result is that foreign chemical antiseptics or germicides are present in numerous comestibles of general consumption.

Our food now is so varied, and drawn frequently from such distances, that preservatives are essential unless some articles are to be abandoned. It would appear that a return to simpler and fresher foods would do us good, but I fear congested town conditions prevent

this. Boric acid, salicylic acid, and formaldehyde are the chief preservatives, and we get them at every meal, so that the total daily dose may be appreciable, and not without effect on a sensitive system. Starting the day with bleached bread, borated bacon and butter, and jam or marmalade cum salicylic acid, not to mention the silicated egg, which doesn't count, we plough bravely through formalised meat, coppered peas, talc-faced rice pudding, and later engage with shrimps, or sausage, or meat pie of even deeper dye, and more butter, bread, cream, and cheese of the same failing as above, not forgetting wine, beer, or other liquid scarcely innocent of a like indictment. It is difficult, nay impossible, to steer clear of the enemy. The marvel is that we are not mummified in the course of time, as indeed we should be if the effects were even moderately cumulative. It is easy to see that on a particularly unlucky day a person may have good cause for not feeling quite fit. The only comfort to be derived from it is in the reflection that the the microbes are having an even worse time of it than we are.

Legislation during the year affecting the Food and Drugs Acts consists in the issue, June 29th, of the Sale of Milk Regulations, 1912, amending the Sale of Milk Regulations, 1901, in so far as they relate to skimmed or separated milk, and replace the limit of 9·0 per cent. total milk solids by a limit of 8·7 per cent. of milk solids other than milk fat. And later, 6th August, by the issue of the Public Health (Milk and Cream) Regulations, 1912. This latter enacts that no thickening substance shall be added to cream; no preservative be added to cream containing less than 35 per cent. of milk fat; and to cream containing 35 per cent. of fat, no preservatives other than borax, boric acid, or hydrogen

peroxide shall be added, whilst labels of standard size and lettering shall be affixed to each sale of such cream, stating the quantity of preservative present, so that a purchaser may know what he is getting, and avoid giving antiseptics to infants and invalids who are better without them.

The Milk and Dairies Bill, introduced and dropped, and introduced again, is chiefly concerned with the regulation of dairies, &c., rather than with the analytical side, though through the powers given of issuing further regulations, we may have some limits of dirt, &c., imposed, when eventually it does get passed.

The Rag Flock Act of 1911, creating a limit of chlorine in flocks, though not coming under this heading, may be mentioned as an indication that official analytical control is widening its scope beyond foods, &c., and we may soon find soap, oils, and chemicals generally brought into line.

The Fertilisers and Feeding Stuffs Act.

The year 1912 was the third one during which the Act has been enforced in Halifax, and the good work has been continued.

Our discovery of the Burgess fraud, and his prosecution and conviction last year, brought us quite widespread fame, special mention being made of it officially, and in publications all over the country, as an instance of the great value of the new Act.

In 1912 no article has been proceeded against, although we could have done so had we wished in several cases. In the case of a well-known fish manure we had to draw the attention of the makers to a defi-

ciency of potash, and to the illegality of their label. Their apology and promises to remedy it were promptly forthcoming.

In another case, that of the most prominently boomed fertiliser of the year, deficiency was very marked, and shortly afterwards another of their products was found to be even less satisfactory. In correspondence with the firm they threw the blame on the actual makers, but it was not possible to proceed against them directly, and we did not wish to harass the innocent retailer on this occasion. Needless to say watch will be kept on this brand of manufacture in future.

In the case of a "Dairy Meal Compound" complained of by a farmer in Mixenden, my analysis showed the article to be below strength in both oils and albuminoids, and although the farmer had had it too long for us to take action against the Hull firm who supplied it, they very hurriedly fetched it away, though previously obdurate in the matter.

Other instances arose of dealers failing to give statements of composition with purchases, although they must know the requirements of the Act, and have indeed been reminded of them. In correspondence with the Board of Agriculture, we are advised that unless this is remedied we should take action.

The Act is undoubtedly a capital one, and a wider application of it will possibly be made in the district shortly. It is surprising that farmers do not take more advantage of the great facilities offered them in a leaflet issued by our Health Department some time ago, but they have, as a class, long been characterised by their inertia.

SHOP INSPECTOR'S REPORT.

In consequence of the coming into force of the Shops Act, your Committee appointed a special inspector for this work early in June of the year under review, and he has submitted to me the following report on the work he has carried out during the year since that date.

On the 10th of June, 1912, I commenced my duties as Inspector of Shops, and proceeded to make a General Register of Shops. After this I commenced to visit the shops to obtain the statistics necessary to the satisfactory working of the Act, and at the same time to observe if the Act was understood and was being complied with.

On the 14th of December every shop in the Borough had been visited at least once, but a number I had to revisit, owing to the occupier being out or not having the necessary particulars to hand. This is shown by the fact that 2,862 visits were made for registration purposes, the number of shops being approximately 2,375.

The following table shows the number of Assistants and Young Persons employed (age 14 and under 18 years), as far as could be ascertained, and is probably a low estimate, as many tradesmen employ extra hands during the summer months, and many of these extra assistants would have been dispensed with when these particulars were taken.

SHOP ASSISTANTS		YOUNG PERSONS (UNDER 18 YEARS OF AGE).	
Male	Female	Male	Female
764	619	246	94

This list does not contain any employed in shops under 14 years of age, yet we have a total of 1,723 shop employees, all of whom come under the Half-holiday and Meal-time Provisions of the Act.

I have found it necessary to warn 24 tradesmen because their assistants had not left the shop at 1-30 p.m. on the half-holiday, and because of improper meal-time allowances 55 shop-keepers have been warned and had the Meal-time Provisions explained to them.

During July I visited the watchmakers, jewellers, &c., to verify their signatures on a memorial for an Early Closing Order, under the Shops Act, 1912. But, however, a second visit was necessitated, owing to a requisition signed by 16 jewellers, &c., being sent to the Home Office in favour of 9 p.m. as the closing hour for Friday, instead of 8 p.m. as stated on the Memorial. Those in favour of 8 p.m. obtained a large majority of votes, for only 18 were in favour of 9 p.m. as the closing hour. The Order received the sanction of the Home Secretary, and came into force on November 1st, 1912, being the first Order under the new Shops Act, but is the fourth Early Closing Order in force in the Borough. These Orders are operative in 28 trades or businesses in connection with the town, and affect, directly or indirectly, about one half the trades or businesses in the Borough.

Appended is a list of the Closing Orders in force in the Borough, with the area affected by each Order, and the closing time for each day enforced by each Closing Order.

	Trades or Business	Time of Closing					
		Mon. p.m.	Tues. p.m.	Wed. p.m.	Thur p.m.	Fri. p.m.	Sat. p.m.
1	Hairdressers and Barbers Closing Order (1905). Area: The Borough.	8	8	8-30	1	8-30	10
2	Halifax Closing Order (1906)—						
	Boot and Shoe Dealers	8	8	8	1	9	10
	Painters, Decorators and Wallpaper Dealers ...	8	8	8	1	8	8
	Butchers and Meat Purveyors	7	8	8	2	10	11
	Area: The Borough.						
3	Halifax Closing Order (1909)—Hosiers, Hatters, Gentlemen's Outfitters, Drapers, Ladies & Children's Outfitters, Silk Mercers, Mantle and Waterproof Dealers, Furriers, Milliners, Furniture Dealers, Carpet and Fent Merchants, Tailors, Oilcloth and Linoleum Dealers, and including Auctioneers for sale of above trades...	8	8	8	1	9	10
	Area: The Borough, except Warley, Copley and Northowram Wards, also Illingworth, except portion to the south-east of High Level Railway between Wood Lane and Holmfield						
4	Halifax Jewellers, &c., Shops Closing Order, (1912)— Watchmakers, Jewellers, Silversmiths, Pawnbrokers selling Watches, Clocks, Jewellery or Silver Plate ...	8	8	8	8	8	10
	Area: The Borough.						

The early closing of shops was greeted with dire predictions of loss of trade and many other evils, but many of the traders are in favour of still shorter hours, and maintain that shop hours are still too long, and that they would do the same amount of business were the hours shortened another hour per day.

A very large majority of shops close for the weekly half-holiday on Thursday. The pork butchers, greengrocers, and tripe dealers close on the Monday; but the fish friers divide their favours for the half-holiday amongst the first four days of the week, whilst the mixed businesses are as diverse in their choice of the half-holiday as the fish friers, especially those who have a portion of their business exempt under Schedule 2.

There is, amongst the shop-keepers generally, a desire for a more uniform half-holiday, and undoubtedly a general recognised weekly half-holiday would be welcomed by all sections of the community. From expressions of opinion by shop-keepers and tradesmen, I gather that a very large majority are in favour of the Sunday Closing of Shops, and much as they appreciate the weekly half-holiday, they would rather have the Sunday Closing of Shops, had they the alternative choice.

Very few shop-keepers seem to have been aware of the notices necessary under the Shops Act, and the Notice for Mixed Businesses (4R) has been printed in many different forms, and the printing, which should be in letters 2in. high, has varied from $\frac{1}{4}$in. to 2in. The only way to overcome this difficulty has been to write out a copy of notice required, and state the height of

letters, besides which I have interviewed any printer whom I found printing the Notices, and acquainted him with the style of Notice required.

To the end of December three cases of contravention of the Shops Act were proceeded against. The first, J.W., a butcher, for a sale which took place 22 minutes after the closing hour, on Saturday, 9th November, 1912; he was fined 5s. and 10s. costs. The second and third cases were against H.B. & B., auctioneers, for selling jewellery and watches after the closing hour on Wednesday and Friday, the 27th and 29th of November, 1912; the defendents were fined 10s. and 9s. 6d. costs in each case.

The portion of the Children's Bye-laws, relating to children under 14 years of age employed in shops, has been placed under my supervision and promises to entail a large amount of work to ensure these provisions being carried out. This is accounted for by the fact that the employment of children under 14 years is subject to continual change, for the boys employed by hair-dressers rarely work for more than six months, and when they have obtained their attendance marks the higher wages paid in the factories attract them there. Other shop-keepers have the same difficulty but not in so marked a degree.

The following is a list of the visits paid by me, and the number of persons cautioned for contraventions of the Acts, also the number prosecuted.

Registration Visits (being visits to Shops for particulars for entry in Register) ...	2,862
Half-holiday Visits (being number of streets visited and shops entered)	903
Special Visits (being interviews and number of streets visited for Early Closing purposes)	1,138
Children's Bye-laws Visits	7
Total Visits ...	4,910
Shops without Assistants' Half-holiday Notice (1R)	449
Shops without Young Persons' Notice (Sect. 2)	59
,, Mixed Business Notice (4R) ...	283
,, Seats for Female Assistants (Sect. 3)	2
Total ...	793
Contraventions of Assistants' Mealtimes ...	55
,, Assistants' Half-holidays ...	24
,, Half-holiday Closing ...	45
,, Closing Orders	108
,, Young Persons' Hours ...	11
Shops having Notice (4R) and not displaying same	8
Total ...	251
Prosecutions :	
Under Early Closing Orders, Sect. 5 ...	1
,, ,, ,, Sect. 5 & 9	2
Total ...	3

In all cases where offences have been committed against the Shops Act, as in the table of offences above, I have pointed out to the offender the nature of the contravention, and explained the Section of the Act covering each offence. The majority of the shop-keepers are, however, ready and willing to comply with the provisions of the Act, and those connected with the various Trade Societies are, through their secretaries and meetings, kept informed about any regulations affecting the particular trade they are connected with.

There is one practice which I observed during Christmas time, and which I have since found was more extensive than I at first supposed, it is that of employing Young Persons, under 18 years of age, about the business of a shop after being employed in a Factory or Workshop. Under Section 2 of the Shops Act, 1912, a Young Person can only be so employed to complete the number of hours permitted by the Factory and Workshops Act, 1901, and I have warned all offenders of these regulations.

COUNTY BOROUGH OF HALIFAX

THE

Sanitary Inspector's Report

FOR THE

YEAR ENDED 31st DECEMBER, 1912.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I have the honour and pleasure of laying before you for your consideration my Thirty-eighth Annual Report on the operations of the Health Department for the year ended December 31st, 1912.

TOWN HALL, HALIFAX,

1913.

HEALTH DEPARTMENT.

Summary of Work done.

Number of Houses Visited under the Housing and Town Planning Act	774
Number of Visits to Lodging Houses and Furnished Rooms	701
Number of Visits to Houses with reference to Cleanliness, Overcrowding, &c.	133
Number of Visits to Houses with reference to Defective Drainage	7380
Number of Visits to Houses with reference to Infectious Diseases...	1190
Number of Notices Served	558
Rooms Disinfected	450
Cases Removed to the Hospital	195
Infectious Diseases reported	340
Letters served (referring to Nuisances, &c.) ...	284
Summonses taken out...	8
Smoke Observations taken	538
Old Ashpits altered to Goux and Water Carriage System	5
Goux Closets registered	32

It must be remembered that many nuisances are frequently included under one notice, and therefore the number of nuisances represent considerably more than the number of notices.

Removal of Nuisances.

The following table shows the nature of nuisances registered, and work carried out after mere verbal notice.

Nature of Nuisances.	Number Registered
Defective Sink Drains	143
„ „ Pipes	43
„ „ Syphon Traps	33
„ Basement Drains...	73
„ Yard Drains	31
„ Urinal Drains	16
„ W.C. Drains	70
„ Area Drains	31
Made-up Sink Pipes	110
Defective Sink Stones	6
Made-up Bath Pipes	3
„ Lavatory Pipes	4
„ Basement Drains	42
„ Water Closets	33
„ Yard Drains	39
„ Urinal Drains	4
„ Gullies	75
„ Private Street Drains	2
„ Intercepting Traps	9
Untrapped Basement Drains	4
„ Sink Drains and Pipes	8
„ Area Drains	5
„ Yard Drains	5
„ Bath Pipes	6

NUISANCES—*Continued.*

Nature of Nuisances	Number Registered
Untrapped Lavatory Pipes	3
Drains not efficiently Trapped :—	
Sink Drains...	4
Cellar Drains	1
Yard Drains	4
Area Drains	6
Sink Drains and Pipes requiring Disconnecting	113
Defective Fall-pipe Drains	61
„ Fall-pipes	80
„ Spouting	99
„ Roofing	12
Broken Pot and Iron Traps	31
Insufficient Supply of Water to Closets ...	14
Nuisances from Water in Cellar	58
„ Want of Drains	12
„ Smoke	1
„ Swine	12
„ Pigeons	1
„ Rabbits	2
Houses Overcrowded	6
„ requiring Limewashing	21
Accumulations of Offensive Matter	51
Privies requiring Limewashing	24
Dirty Passages	20
Insufficient Privy Accommodation	17
Offensive Ashpits and Privies	71
„ Goux Closets	147
„ Ash Tubs	492
Doors off Closets	37

NUISANCES—*Continued.*

Nature of Nuisances	Number Registered
Doors off Ashes Tub Places	30
Dilapidated Closets	24
Ashpits requiring Re-construction	26
Miscellaneous	70
Convert Goux Closets to Water Closets ...	14
Offensive Street Gullies	2
No Water Supply	3
Damp House Walls	4
IN FACTORIES.	
Offensive Smoke	4
„ Condition of Closets	12
Insufficient Privy Accommodation	7
Want of Screens to Water Closets	6
Insufficient Light and Ventilation to Water Closets	12
Nuisance from Water Tank	1
Defective, Made-up and Untrapped Drains ...	20
Made-up Water Closets	10
„ Sink Drains	2
Closets opening direct into Workroom ...	2
IN WORKSHOPS.	
Rooms requiring Lime-washing	43
Insufficient Ventilation	9
Defective Water Closets	4
„ Drains	2
Insufficient Closet Accommodation	3
Defective Drains and Sink Pipes	6

NUISANCES—*Continued.*

Nature of Nuisances	Number Registered
Dilapidated Goux Closets	4
Want of Separate Closets for Sexes	2
No Copy of Abstract	6
Defective Water Closets	1
Dirty Floors, Staircases and Closets	7
Workrooms Overcrowded	2
Made-up Water Closets	5
Closets Opening Direct into Workroom ...	2
BAKEHOUSES.	
Bakehouses requiring Lime-washing	39
Damp Walls	3
Defective Sink Drains	5
Offensive Accumulations	2
Defective Troughing	1
Sink Drains to disconnect	4
Dirty Floors	3
Want of proper Cover for Milk	1
Illegal Occupation of Underground Bakehouse ...	1

Night Scavenging.

The following table shows the number of ashpits cleansed during the year, and the number of loads of manure and rubbish collected.

Month	Number of Ashpits emptied	Loads of Soil	Loads of Rubbish	Total Number of Loads
January	116	85	18	103
February	211	133	34	167
March	298	202	69	271
April	136	62	54	116
May	207	130	60	190
June	259	175	57	232
July	312	187	50	237
August	147	84	26	110
September	183	48	82	130
October	300	130	111	241
November	288	132	75	207
December	170	92	20	112
Total... ...	2627	1460	656	2116

The total number of ashpits cleansed during the year was 2,627, as against 2,797 in the previous year.

5 ashpits with privies have been altered to the W.C. and Goux system. The above includes Ovenden, Illingworth, Copley, and Northowram wards.

TABLE SHOWING THE NUMBER OF ASHPITS WITHIN THE BOROUGH, DECEMBER 31ST, 1912.

District	Wards	Ashpits with Privies	Dry Ashpits	Total
1	Akroydon and North ...	40	45	85
2	Ovenden and Illingworth	239	25	264
3	Central and East ...	20	73	93
4	West and South ...	5	164	169
5	Skircoat and Southowram	18	13	31
6	Pellon and Kingston ...	5	32	37
7	Copley	95	35	130
8	Warley	190	20	210
9	Northowram	148	...	148
	TOTAL	760	407	1167

5 Ashpits with privies have been altered to the Goux System.

8 additional Ashpits with privies have been entered on the books.

Goux Scavenging.

The following table shows the number of closet tubs and loads of ashes collected during the year.

Month	Number of Closet Tubs Collected	Loads of Ashes Collected
January	52253	1980
February	50812	1969
March	52118	2115
April...	49652	2052
May	53706	3014
June...	49655	1719
July	54397	1676
August	51478	1707
September	51475	1754
October	55404	2022
November	51140	1999
December	48342	2049
TOTAL	620432	24056

The above represents 28,201 loads of night soil as against 28,258 and 24,056 loads of ashes as against 22,166 for the preceding year.

The number of additional closets registered is 32 being a decrease of 5 on the number registered during the year 1911.

The following table shows the number of Goux closet tubs registered since the commencement of the Goux system.

Year	Number of Closet Tubs	Number Registered during each year
1871	1102	1109 in 15 months
1872	1895	786
1873	2440	545
1874	2820	380
1875	3088	268
1876	3316	228
1877	3769	453
1878	4277	508
1879	5858	576
1880	5071	218
1881	5552	481
1882	6057	505
1883	6506	449
1884	7405	899
1885	8049	644
1886	8727	678
1887	9327	600
1888	9831	504
1889	10446	615
1890	11098	652
1891	11644	546
1892	12068	419
1893	13047	984
1894	13450	403
1895	13797	347
1896	14145	348
1897	14444	299
1898	14881	437
145 Tubs returned in connection with property pulled down.		
1899	15287	551
1900	15974	687
1901	16397	461
38 Tubs returned.		
1902	16808	411
1903	17164	356
1904	17428	264
1905	17662	234
1906	17823	161
1907	17920	97
1908	17975	55
1909	18038	63
1910	18103	65
1911	18140	37
1912	18172	32

During the year 8 closets have been erected in connection with new property, and 24 have been altered from the old system.

Streets Scavenging.

Table showing number of streets and miles requiring sweeping in each ward.

WARDS	Number of Streets	Number of Lineal Miles of Setting	
		Miles	Yards
East	93	7	1133
Central	41	4	1069
South	50	6	907
West	39	5	3
North	39	4	1137
Northowram	34	5	715
Southowram	39	7	61
Skircoat	42	5	1657
Copley	9	7	1638
Kingston	24	2	1518
Pellon	27	3	1564
Ovenden and Illingworth ...	32	12	495
TOTAL	469	73	1337

Streets Scavenging.

Table showing number of lineal yards and miles swept during the year in each ward.

Wards	Number of Lineal Yards swept	Miles	Yards
East	3120992	1773	512
Central	1148424	652	904
South	1490630	846	1670
West	802268	455	1468
North	857454	487	334
Akroydon	443638	252	118
Southowram	647274	367	1354
Skircoat	613225	348	745
Copley	50452	28	1172
Kingston	305850	173	1370
Pellon	365747	207	1427
Ovenden and Illingworth (Part swept by Halifax Gang)	1036883	589	243
TOTAL ...	10882837	6183	757

Streets Scavenging.

The subjoined table gives at a glance the work done in this department during 1912.

Number of Streets swept	43649
Lineal yards swept	10882837
Square yards swept	80971847
Number of Streets watered	8081
Loads of Water used for that purpose ...	9010
Loads of Sweepings gathered	9306
Loads of Snow removed from the streets ...	6415
Number of Gullies emptied	219801
Garbage removed from Market Hall	1307
Loads of Ashes and Sand put on streets ...	254

During the year 156 loads of garbage have been removed from fishmongers, fried fish shops, and greengrocers.

Birks Hall Tips.

Table showing the number of loads of ashes and rubbish tipped during the year.

NAME	Number of Loads
Goux Department	19329
Private Firms	3840
Total	23169

Charlestown.

Loads of ashes from ashes tubs, 1,622.

ANALYSIS OF REFUSE COLLECTED IN THE BOROUGH OF HALIFAX DURING THE YEAR 1912

	No. of Loads
From Wet and Dry Ashpits	2116
From Ashes Tubs	23056
From Goux Closet Tubs	28201
Sweepings gathered from the Streets, and Refuse from Gullies	9306
Garbage removed from Market Hall ...	1307
Garbage from Fried Fish Shops	156
Total Number of Loads ...	64142

Smoke Observations.

The following table shows the number of Smoke Observations taken during the year, and the average number of minutes of dense smoke emitted.

	Number of Observations taken	Average Number of minutes of Dense Smoke emitted
Number of Observations taken	538	
Number showing moderate Smoke or *nil*	325	
Number of Observations taken for a period of 60 minutes, each showing Dense Smoke	213	
Number of Observations showing Dense Smoke above the maximum adopted by the Committee	14	
Average number of minutes of Dense Smoke emitted from Chimneys		1·01

The number of observations taken during the year is 538. 14 of these showed dense smoke above the maximum allowed by your Committee.

The average number of minutes of dense smoke emitted from the chimneys is 1·01.

Table showing the number of Infected Houses visited by the District Inspectors.

WARDS	Enteric Fever	Scarlet Fever	Puerperal Fever	Diphtheria	Erysipelas	Poliomyelitis
Ovenden ...	2	5		4	7	
Akroydon ...	1	17		3	5	
North ...	5	19		2	8	
Central ...	3	3		3	1	
West ...	4	7		6	2	
South ...	1	8		4	2	
East ...	4	10	1	6	3	
Southowram	4	29		7	1	
Skircoat ...	3	13		8	7	
Copley ...		22		2		
Pellon ...	2	13		8	2	
Kingston ...	5	16		28	4	
Illingworth ...		3			4	
Northowram		8				1
Warley ...	1	3				
TOTAL ...	35	176	1	81	46	1

Table showing number of Infectious Diseases removed to the Borough Fever Hospital by the District Inspectors, during the year 1912.

	Typhoid Fever	Scarlet Fever	Diphtheria	Total
Ovenden	2		1	3
Akroydon		11	1	12
North	4	10		14
Central	2	2	2	6
West	2	1	1	4
South	1	7		8
East	3	6	2	11
Southowram ...	3	23	1	27
Skircoat		2	3	5
Copley		1		1
Pellon	1	5	3	9
Kingston	3	8	8	19
Northowram ...		5		5
Out of Borough ...	11	52	8	71
TOTAL	32	133	30	195

Disinfection.

The following table shows the number and description of the articles disinfected at the Disinfecting House, Stoney Royd, during the year.

Description of Articles	Number of Articles
Beds	529
Mattresses	328
Pillows	910
Sheets	656
Bolsters	509
Blankets	921
Counterpanes	377
Carpets and Rugs	46
Drawers and Hose	601
Flannel Vests, Dresses and Petticoats ...	647
Mats and Sundries	1238
Dressing Gowns and Shawls ...	269
Coats	190
Cushions	35
Trousers	83
Waistcoats	78
Miscellaneous	73
TOTAL ...	7490

Canal Boats.

During the year 1912, 39 Canal Boats were examined. Of this number 35 were found to conform with the Acts.

Infringement of the Acts and Regulations was found in 4 cases.

Requires Painting	1	Going in for painting.
Broken Chimney	1	Going in for repairs.
Defective Deck	1	Letter sent to owner.
Absence of Certificate	1	

There has not been a single case of sickness or overcrowding during the year, and where women and children were on board, proper provision was made for the division of the sexes.

Of the 39 boats inspected there were 4 with women and children, and 7 with women, the children having been brought for the single journey only.

All boats were free from bilge water, ventilation was fairly good, and good provision was made for the storage of water for domestic purposes.

All boats plying in this district are registered either at Goole, Mirfield, or Leeds, consequently no arrangements have been made for registration.

Number of Boats Inspected	Number Registered to carry	Number of Males on board	Number of Females on board	Total
39	258	80	11	91

AGES OF CHILDREN FOUND ON CANAL BOATS:

	Years			Total
	Under 1	1	2	
Number	4	1	1	6

TABLE SHOWING PROSECUTIONS UNDER THE SALE OF FOOD AND DRUGS ACT, AND PUBLIC HEALTH ACT, &c.

Date	Defendant's Name	Nature of Offence	Decision of Court			Remarks
			Penalties	Costs	Total	
			£ s. d.	£ s. d.	£ s. d.	
July 9th ...	Tom Booth, 39 Borough Market	Exposing 7 pieces of Pork wet, soft and flabby	10 0 0	0 5 6	10 5 6	In default of payment, one month
Aug. 9th ...	Frank Farnell, 23 Raglan Street	Selling Milk with 9 per cent. of butter fat abstracted.	...	0 3 0	0 3 0	Case dismissed on payment of costs
Aug. 16th...	Frederick Hudson, Whitefield Farm Northowram	Selling Milk, adulterated with 6·7 of added water	2 0 0	0 16 0	2 16 0	...
Aug. 16th...	Frederick Hudson, Whitefield Farm Northowram	Selling Milk, adulterated with 18·1 per cent. of added water	2 0 0	0 16 0	2 16 0	...

Aug. 23rd...	Messrs. A. Goodhall & Co., Farrar Mills, Salterhebble	Nuisance caused by emitting dense smoke from the chimney of their works	...	0 5 0	0 5 0	Order to abate
Oct. 22nd...	Arthur Roland Banks, Glen Dairy Co., 29 Hanson Lane	Selling Margarine as Butter	2 0 0	0 16 0	2 16 0	...
Nov. 19th...	John Wilson, 157 Pellon Lane, Halifax	Breach of the Shop Hours Act, selling Meat after closing hour	0 5 0	0 10 0	0 15 0	...
Dec. 17th ...	Messrs. Heyworth Brothers, Auctioneers, 10 Northgate	Breach of the Shop Hours Act, selling Jewellery after the closing hours on Wednesday and Friday, Nov. 27 and 29	1 0 0	0 19 0	1 19 0	The defendants were fined 10/- with 9/6 costs on each of the 2 summonses

Prosecutions.

Under the Sale of Food and Drugs Act and the Public Health Act.—The number of prosecutions during the year was 6 against 4 in the previous year. The total fines including costs amounted to £19 16s. 0d. as against £14 17s. 6d.

Under the Shops Act.

There were two prosecutions under this Act, selling after closing hours. The total fines and costs amounted to £2 14s. 0d.

Vans and Tents.

These as in previous years have been regularly inspected during the Spring and Summer Fairs, and at other times when visiting the town, they were found to be in a clean condition and free from infectious diseases. It is very gratifying to find that the people occupying these vans live under much better conditions than formerly, as the newly constructed vans have more light and better ventilation, and from a sanitary point of view are much in advance of those in use 10 or 15 years ago.

Town Planning.

During the year 774 houses have been inspected under the Town Planning Act, and 2 closing orders have been made, and other defects have been dealt with under the Public Health Act, 1875.

Street Scavenging.

The number of streets cleansed was 43,649, against 43,750 in the previous year, the condition of the weather

accounting for the difference in the number cleansed. The number of loads of sweepings collected was 9,306, against 9,537 during 1911. 6,415 loads of snow were removed from the streets, against 28 in the previous year, and this accounts to some extent for the 101 fewer streets cleansed.

Smoke Observations.

The number of smoke observations is 538 against 554 in the previous year. The average number of minutes of dense smoke emitted during one hour's observation was 1·01, against 0·96 during 1911, which is 0·05 above that of the previous year.

I may say that very little has been done during the year by the occupiers of mills and workshops, to mitigate the nuisance arising from the emission of black smoke. No doubt an improvement could be made in many cases if practical men were engaged as firemen, instead of men without experience, either in mechanical or hand firing, and if a better class of coal were used instead of the smudge coal, a fair percentage of which, where they have a forced draught, is blown out of the chimney tops, on to the doorsteps and into the houses in the immediate vicinity, very much to the annoyance of the occupants.

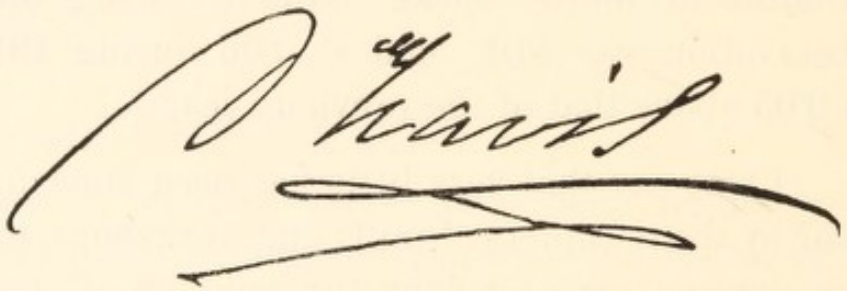
Fertilizers and Feeding Stuffs.

During the year 14 samples of Fertilizers and Feeding Stuffs were purchased and submitted for Analysis. In 10 cases, both Fertilizers and Feeding Stuffs were genuine, and 4 were unsatisfactory. The whole of the samples purchased were unofficial, and in several cases the samples were sold without a label stating the percentage of chemical and other ingredients,

as required by the Act. In each case the seller was notified of the omission, and informed that legal proceedings would be taken against them in any future case.

I again desire to acknowledge the very valuable assistance rendered me by the District Inspectors, the Chief Clerk (Mr. J. W. Jackson), and his staff during the year.

I am, your obedient Servant,



Chief Sanitary Inspector and
Scavenging Superintendent.

APPENDIX.

VITAL STATISTICS OF THE BOROUGH OF HALIFAX DURING 1912 AND PREVIOUS YEARS.

Year.	Population estimated to Middle of each Year.	Births.			Total Deaths Registered in the District.		Deaths of Non-residents registered in the District.	Deaths of Residents not registered in the District.	Nett Deaths belonging to the District			
		Un-corrected Number	Nett						Under 1 year of age.		At all ages.	
			Number.	Rate *	Number.	Rate.*			Number.	Rate per 1,000 Nett Births	Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1907	102,908	1927	...	18·7	1655	16·0	145	48	195	102	1558	15·1
1908	102,570	2118	...	20·6	1664	16·2	139	36	216	101	1561	15·2
1909	102,232	1840	...	17·9	1654	16·1	132	30	183	99	1552	15·1
1910	101,894	1860	...	18·2	1543	15·1	139	27	166	89	1431	14·0
1911	101,556	1875	1868	18·3	1631	16·0	130	53	231	123	1554	15·3
1912	101,500	1841	1828	18·0	1574	15·5	125	46	149	81	1495	14·7

Table showing the number of Infectious Diseases in each locality of the Borough, notified during the year, and classified according to age.

NOTIFIABLE DISEASES.	CASES NOTIFIED IN WHOLE DISTRICT.								TOTAL CASES NOTIFIED IN EACH LOCALITY.														Total cases removed to Hospital.	
	At all Ages.	At Ages—Years.							Oxenden Ward.	Akroydon Ward.	North Ward.	Central Ward.	West Ward (W).	South Ward.	East Ward.	Southowram Ward (H).	Skircoat Ward.	Copley Ward.	Pellon Ward.	Kingston Ward.	Illingworth Ward.	Northowram Ward	Warley Ward.	Residents	Non-Residents
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.																	
Small-pox	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	.	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	..	...	...	...	...	..	...	...	...	...
Diphtheria including Membranous Croup ...	81	...	13	50	5	11	2	...	4	3	2	3	6	4	6	7	8	2	8	28	...	...	...	22	8
Erysipelas	46	...	2	5	5	12	16	6	7	5	8	1	2	2	3	1	7	...	2	4	4	...	...	...	...
Scarlet Fever ...	176	2	24	125	22	2	1	...	5	17	19	3	7	8	10	29	13	22	13	16	3	8	3	81	52
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.	...	...	...	...	...	...	...	...
Enteric Fever ...	35	...	2	4	10	15	3	1	2	1	5	3	4	1	4	4	3	...	2	5	...	...	1	21	11
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	1	...	..	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Cerebro-spinal Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...
Poliomyelitis ...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Pulmonary Tub'rculosis	212	1	1	23	50	78	54	5	9	10	20	20	28	11	29	15	19	4	13	16	11	..	7	...	...
TOTALS... ...	552	3	42	208	93	118	76	12	27	36	54	30	47	26	53	56	50	28	38	69	18	9	11	124	71

Causes of, and Ages at Death, during the Year 1912.

CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT. AT SUBJOINED AGES.									Total Deaths in Public Institutions in the District.
	At all Ages.	Under 1	1 to 2.	2 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.	
All Causes { Certified	1493	148	34	38	41	58	181	453	540	403
All Causes { Uncertified	2	1	...	...	...	...	...	1	...	...
Enteric Fever	4	...	...	...	...	3	1	...	...	5
Smallpox	...	...	...	...	...	...	...	...	...	...
Measles	15	2	7	5	1	...	...	...	...	1
Scarlet Fever	8	...	1	1	6	...	...	..	...	11
Whooping Cough	8	2	3	3	...	...	...	...	...	1
Diphtheria and Croup	6	...	...	2	4	...	...	...	...	1
Influenza	7	...	...	...	...	...	...	3	4	1
Erysipelas	1	...	...	...	...	...	1	...	...	...
Phthisis (Pulmonary Tuberculosis)	105	1	...	1	3	23	39	35	3	44
Tuberculous Meningitis	15	3	3	5	1	2	...	1	...	6
Other Tuberculous Diseases	24	1	2	3	4	4	8	2	...	10
Cancer, Malignant Disease	116	...	...	...	...	...	9	71	36	37
Rheumatic Fever	2	...	...	...	...	...	1	1	...	...
Meningitis	13	4	2	1	2	1	1	2	...	2
Organic Heart Disease	134	...	...	...	5	4	18	58	49	25
Bronchitis	144	13	3	3	...	...	7	31	87	16
Pneumonia (all forms)	98	14	5	6	3	4	12	26	28	14
Other Diseases of Respiratory Organs	18	...	...	...	1	1	2	8	6	6
Diarrhœa and Enteritis	20	8	1	1	..	...	5	4	1	8
Appendicitis and Typhlitis	11	...	...	...	1	1	4	5	...	8
Cirrhosis of Liver	6	...	...	...	...	...	1	3	2	2
Alcoholism	1	...	...	...	...	...	...	1	...	1
Nephritis and Bright's Disease	55	...	...	...	1	...	7	30	17	9
Puerperal Fever	...	...	...	...	...	...	...	...	...	...
Other Accidents and Diseases of Pregnancy and Parturition	11	...	...	...	...	1	9	1	...	1
Congenital Debility and Malformation, including Premature Birth	48	48	...	...	...	...	...	...	...	1
Violent Deaths, excluding Suicide	33	1	1	2	3	3	9	7	7	17
Suicides	12	...	...	...	...	3	4	2	3	1
Other Defined Diseases	570	51	6	5	6	8	39	161	294	174
Diseases Ill-defined or Unknown	10	1	...	...	...	...	4	2	3	1
All Causes	1495	149	34	38	41	58	181	454	540	403

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