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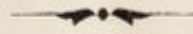
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Borough of Harrogate.



REPORT

ON THE

Health and Sanitary Condition

OF THE

BOROUGH OF HARROGATE

FOR


1910

BY

JAMES MAIR,

Medical Officer of Health.

S. B. LUPTON, Printer, Prospect Crescent, Harrogate.



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*To the Mayor, Aldermen, and Councillors of the Borough
of Harrogate.*

GENTLEMEN,

I have pleasure in presenting to you herewith my Annual Report upon the Health and Sanitary Condition of the Borough of Harrogate for 1910.

The Medical Inspection of school children has been carried on during the year, and details of the work are given in a Report which has been presented to your Education Committee.

I have to thank my official colleagues for much assistance and advice, and also the members of my own staff for their willing help in carrying on the work of the department.

I have also to thank the Chairman and members of the Sanitary Committee for the courtesy they have always extended to me.

I am, Gentlemen,

Your obedient Servant,

JAMES MAIR.

*Public Health Office,
Harrogate,
April 22nd, 1911.*

Principal Figures, 1910.

Population estimated to middle of 1910	...	...	...	33,500
Area in Acres	...	...	...	3,276
Census, 1901	{	Population	...	28,423
		Density of population, persons per acre		8·68
		Inhabited Houses	...	5,691
		Average number of persons per house	..	4·99
Rateable Value	...	...	...	£266,328
Number of Births. Male, 320 ; Female, 309	...	...	...	629
Birthrate per thousand inhabitants	...	...	..	18·8
Number of Deaths	...	...	...	382
Death Rate per thousand inhabitants	...	...	...	11·4
Death Rate excluding all Visitors...	...	...	...	10·3
Infant Mortality	...	...	...	90·6
Zymotic Death Rate...	...	...	...	0·42
Death Rate from Phthisis	...	...	...	0·36
Mean Annual Temperature	...	...	...	... 46·5° F.
Total Rainfall	...	...	...	34·08ins.
Hours of Bright Sunshine	...	...	...	1,406

Population.—Upon the correct estimate of the population depends the accuracy of the various mortality and sickness rates, by means of which the health of one district can be compared with another, and one year with other years.

Unfortunately, it is a difficult figure to arrive at correctly. It is only in census years that an accurate estimate can be obtained, and, at this length of time from the census, one can only make a more or less accurate guess.

There are several methods which may be adopted in estimating the population. The method adopted by the Registrar General assumes that the population has increased at the same rate since the last census (1901) as it did in the previous inter-censal period (1891-1901). By this method he estimates the population of Harrogate at 40,043. But it is, I think, evident that although the town has increased since 1901, the rate of increase has not been so rapid as it was in the years between 1891 and 1901. For this reason, therefore, I believe this to be an over-estimate.

The method I have adopted is to add to the estimated population of last year the natural increase, *i.e.* the excess of births over deaths, and to make allowance for any increase due to excess of immigration over emigration. The natural increase during 1910 was 281, and I estimate the increase due to immigration at about 200. My estimate therefore of the population in the middle of 1910 is, in round figures 33,500, and this is the figure which I have used in calculating nearly all the rates in the report.

I believe it is fairly correct, but the census returns which will shortly be issued will show how far it is wrong.

Natural Increase of Population.—By this term is meant the excess of births over deaths. In 1910 this excess was 281, and the natural increase per 1,000 was 8·4. The figures for each year since 1901 are shown in the accompanying table.

NATURAL INCREASE.

Year.	Population.	Births.	Deaths.	Nat. Inc.	Nat. Inc. per 1,000
1901	29,000	760	383	377	13·0
1902	30,000	695	354	341	11·4
1903	30,000	712	377	335	11·2
1904	30,500	734	384	350	11·5
1905	31,000	700	378	322	10·4
1906	31,500	659	381	278	8·8
1907	32,000	631	370	261	8·2
1908	32,000	555	358	197	6·2
1909	33,000	640	358	282	8·6
1910	33,500	629	348	281	8·4

It will be seen that the rate of increase has been falling almost uninterruptedly during that period.

Births.—During the year 629 births, of which 320 were male and 309 female, were registered in the Borough. The birthrate is therefore 18·8 per 1,000 of the estimated population, and with one exception (1908) is the lowest rate recorded since 1900. It is 0·6 per 1,000 below the rate for 1909, and 1·9 below the average rate for the ten years 1900 to 1909. The accompanying table shows the birth-rate of Harrogate compared with that of England and Wales.

BIRTH-RATE, 1900-1910.

	Harrogate.	England and Wales.
1900	17·0	28·7
1901	19·7	28·5
1902	23·1	28·6
1903	23·7	28·4
1904	24·0	27·9
1905	22·6	27·2
1906	20·9	27·0
1907	19·7	26·3
1908	17·3	26·5
1909	19·4	25·6
1910	18·8	24·8

There were 27 illegitimate births registered, or 4·3 per cent. of the total number. The percentage for 1909 was 5·9, and for 1908, 5·2.

STILL-BIRTHS, unfortunately, are not required to be registered, but I have been able to ascertain, by the courtesy of the superintendents of the cemeteries, that 29 still-born children belonging to Harrogate were interred during the year.

Deaths.—378 deaths—28 fewer than in 1909—were registered as having taken place within the Borough; 16 of these were deaths of non-residents who died in public institutions in the town, and these have all been referred to the districts to which they belonged, and have to be deducted from the above number; 20 deaths of residents occurred in public institutions outside the town, and these have to be added.

The actual number of deaths, therefore, from which the Death-rate is calculated is 382, of which 176 were male and 206 female. This gives a net Death-rate of 11·4 per thousand of the estimated population.

Resident Death-Rate.—By this term I mean the Death-rate of residents only, *i.e.*, the rate after excluding the deaths of *all* visitors, whether dying in public institutions or elsewhere. The Local Government Board only allows us to exclude the deaths of those visitors who die in public institutions, *i.e.*, hospitals, nursing homes, etc. But each year a number of visitors die in boarding houses, hotels, etc., and as these people are in no sense residents, I think it is only fair that these deaths also should be excluded, and I believe that the death-rate calculated in this way is a better criterion of the health of the town. During the year, 34 such deaths took place, in addition to 16 which occurred in public institutions. The number of resident deaths is therefore 348, and the corresponding rate is 10·3 per 1,000. This is 0·5 below

the rate for 1909, and 2·1 below the rate for the ten years 1900 to 1909.

The following table shows the Harrogate death-rate compared with that of England and Wales.

Year.	Harrogate, excluding Visitors.		England and Wales.	
1900	...	15·6	...	18·2
1901	...	13·2	...	16·9
1902	...	11·8	...	16·2
1903	...	12·6	...	15·4
1904	...	12·5	...	16·2
1905	...	12·2	...	15·2
1906	...	12·1	...	15·4
1907	...	11·5	...	15·0
1908	...	11·2	...	14·7
1909	...	10·8	...	14·5
Average for 10 years	...	12·4	...	15·8
1910	...	10·3	...	13·4

It is satisfactory to note that the death-rate has been steadily falling of recent years, and that the rate for 1910 is the lowest recorded since 1896, when the population was only 17,500.

Annual Death-rate during 1910.

England and Wales	...	...	...	13·4
77 Great Towns	...	...	...	14·3
136 Smaller Towns	...	...	...	12·9
England and Wales less the 213 towns	...	...	...	12·8
Harrogate nett Death-rate	...	...	...	11·4
Corrected	„	...	...	12·3
Resident	„	...	...	10·3
Corrected Resident Death-rate	...	...	...	11·1

Corrected Death-rate.—The Death-rate varies at different ages, being highest at the extremes of life. It is also higher among males than females at practically all ages. It is

obvious, therefore, that other things being equal, a town with a large proportion of very old or very young people will have a higher death-rate than one in which most of the inhabitants are young adults. In order to make the death-rates of different towns more comparable, it is necessary to correct them for age and sex distribution. A method has been devised by which this can be done, and in order to correct the Harrogate death-rate, it has to be multiplied by 1.08. This makes the corrected net rate 12.3 per 1,000, and the corrected resident death-rate 11.1.

Inquests.—23 inquests were held on residents during 1910. The causes of death as certified by the coroner were:—

Natural causes (disease)	14
Accidental injuries... ..	7
Suicide (hanging)	1
„ (coal gas poisoning)	1

Uncertified Deaths.—These are deaths which are registered without being certified by a medical man or a coroner. No uncertified deaths were registered during the year.

Infant Mortality.—By this term is meant the deaths of infants under one year of age, and it is usually expressed as a ratio of these deaths per thousand births.

629 births were registered during the year, and 57 children under one year of age died during the same period. The infant mortality is therefore 90.6 per 1,000. The corresponding rate for 1909 was 86.0 per 1,000, and the average rate for the ten years 1900 to 1909 was 116.2.

There is an increase as compared with last year in the deaths due to premature birth, diarrhoea, and enteritis, and a decrease in those due to measles and convulsions. Nearly one half of the deaths (27) occurred in the first month of life, and of this number 18 were due to premature birth or congenital defects.

A reference to the accompanying tables shows that there has been, of late years, a considerable fall in the infant mortality, and

that Harrogate now compares favourably with the rest of the country in this respect.

INFANT MORTALITY.

Harrogate compared with England and Wales.

	England and Wales	77 Great Towns	136 Smaller Towns	England and Wales less the 213 Towns	Harrogate
Infant Mortality... (per 1,000 births)	106	115	104	96	90·6

PRINCIPAL CAUSES OF INFANT DEATHS. 1900 to 1910.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Marasmus, Debility and Atrophy ...	?	27	?	?	?	10	8	7	5	5	6
Convulsions ...	?	?	21	14	8	16	9	9	10	10	4
Bronchitis and Pneumonia ...	9	12	11	13	15	12	11	7	11	9	7
Whooping Cough	—	5	7	3	4	7	—	—	2	2	2
Measles ...	—	—	—	1	1	—	2	—	—	3	1
Premature Birth ...	8	16	?	11	14	18	14	5	8	10	16
Congenital Defects	?	?	?	?	?	5	4	4	5	9	7
Diarrhœa, Enter- itis, and Gastritis	6	14	7	9	12	11	22	3	8	3	9
All other Causes...	38	32	31	38	31	13	16	9	14	4	5
Total Deaths ...	61	106	77	89	85	92	86	44	63	55	57
Total Births ...	421	760	695	712	734	700	659	631	555	640	629
Infant Mortality ...	144	144·7	113	116	115	131·4	130	69·7	113	86·0	90·6

I believe that this rate could be still further reduced, and I am optimistic enough to hope that the rate for 1907, which was 69·7, will again be reached and maintained. No special effort has been made in the past to reduce the infant mortality, and while no doubt the general sanitary improvements which have been carried out, especially, perhaps, the paving of back yards and the abolition of ashpits, have contributed largely to the fall which has taken place in this rate in late years, I feel assured that more might be done. There is, unfortunately, a large amount of ignorance, especially among the poorer mothers, as to the proper method of feeding and bringing up

young infants, and there is little doubt that many of the infant deaths are due to preventable causes. It must not be forgotten also that a certain proportion of these children who survive have their health more or less impaired as a result of improper feeding, etc.

One of the best methods of combating this ignorance is the appointment of an able and tactful health visitor who would visit these homes as soon as possible after a birth has occurred and advise and instruct the mothers. Acting on my advice the Sanitary Committee has decided to endeavour to make some arrangement with the Education Committee whereby the services of the School Nurse could be utilised for work of this description. I have every reason to believe that these arrangements will be satisfactorily concluded, and I have little doubt that the appointment of such an official will, in time, lead to good results, not only in lowering the infant mortality but in improving the physique of those children who survive.

It is, perhaps, worthy of note that the mortality among illegitimate children, who are almost invariably less well cared for than legitimate children, was, in 1910, 186·2 per 1,000 as compared with a legitimate mortality of 86·4 per 1,000.

The following table shows the infant mortality in each of the Wards for 1910 compared with the average for the nine years 1901 to 1909.

	East	Central	West	Bilton	Starbeck	Borough
Av., 1901-1909 ...	118·6	122·6	100·3	114·9	107·1	112·4
1910 ...	59·1	82·4	107·8	136·4	84·1	90·6

Notification of Births' Act.—This Act is an adoptive Act, and only comes into force in a district where it has been adopted by the Local Authority. It requires every birth, still births as well as live, to be notified to the Medical Officer of Health within 36 hours of the birth taking place. It does not do away with the necessity of registration, and all births, although notified, still require to be registered. My

only information at present with regard to births is derived from the lists which are sent to me weekly by the Registrar, and, as births are only required to be registered within six weeks, it not unfrequently happens that a child is seven weeks old before any intimation of its birth is received, and the value of a visit by a health visitor after this lapse of time is of course much lessened.

The question of adopting this Act was considered by the Sanitary Committee some 3 or 4 years ago, and it was then decided not to adopt it. As there are some provisions in the Act which are looked upon as being objectionable, I have been somewhat chary in recommending its adoption, but as it has now been in operation in many places for some considerable time, and has been found to be of benefit and to give rise to little friction, I think that the time has now arrived when the Committee might with advantage reconsider the question, more especially in view of the probable early appointment of a health visitor, the value of whose work would, I am sure, be much enhanced by its adoption.

Zymotic Mortality.—By this term is meant the deaths from the seven principal zymotic diseases. These were as follows:—

	No.	Rate
Smallpox	0	0·00
Scarlet Fever	0	0·00
Diphtheria	0	0·00
Enteric Fever	0	0·00
Measles	3	0·09
Whooping Cough	4	0·12
Diarrhœa	7	0·21
	<hr/>	<hr/>
Total	14	0·42

The zymotic death-rate is therefore 0·42 per thousand and is the same as the rate for 1909. These are the lowest rates recorded since 1895, when the population of the Borough was only 17,500.

The zymotic death-rate for England and Wales in 1910 was 0·99; for the 77 great towns, 1·23; for the 136 smaller towns, 0·88; and for England and Wales less the 213 towns, 0·74.

It will be seen, therefore, that Harrogate compares favourably with the rest of the country.

The following table shows the zymotic death-rate for each of the last ten years.

1901	...	1·59	1906	...	1·21
1902	...	0·53	1907	...	0·47
1903	...	0·63	1908	...	0·63
1904	...	0·82	1909	...	0·42
1905	...	0·93	1910	...	0·42

Notification of Infectious Diseases.—62 cases of infectious disease were notified during the year. These were 16 cases of Diphtheria, 13 of Erysipelas, 32 of Scarlet Fever, and 1 of Puerperal Fever. The total number of cases notified in 1909 was 68.

In the Local Government Board table III., page 46, full details are given of the age of the patients, and of the number occurring in each Ward.

Steps taken to prevent the spread of Infectious Diseases.—Immediately upon receipt of a notification, or as soon thereafter as possible, the affected house is visited by the Sanitary Inspector or myself. Inquiries are made as to milk supply, school attended, etc., and every effort is made to discover the source of infection. The particulars obtained are entered upon cards, which are filed for future reference. When the patient cannot be satisfactorily isolated at home, removal to the Isolation Hospital is urged, and in no case was any difficulty experienced in obtaining the consent of the patient or his relatives to this removal.

After removal to hospital, or when nursed at home, upon recovery, the clothing and bedding are removed to the hospital and disinfected by steam in a Washington-Lyons disinfector.

The infected rooms are disinfected by spraying with formalin, and where it is thought necessary the wallpaper is stripped from the walls, and the ceiling limewashed. All disinfecting is carried out by the staff, and at the cost of the Sanitary Committee.

Where any children from an infected house are attending school, notice is sent to the Head Teacher and to the Attendance Officer, advising them to exclude children from that house until they receive notice that the house is free from infection.

If any books from the public library are found in an infected house, they are taken possession of and destroyed, the books being replaced at the expense of the Sanitary Committee. At the same time the Librarian is requested not to allow any books to be lent to the house until it has been declared free from infection.

As soon as possible after the receipt of the notification the drains are tested, and any defects which are found are put in order.

In the beginning of the year a system of notification was adopted, whereby the Head Teachers of all the elementary schools were asked to send me every week a list of the names and addresses of those children whom they knew or suspected to be absent from school on account of any infectious disease. This has already proved of great value, especially in measles and whooping cough.

Isolation Hospital.—The Isolation Hospital is a joint hospital, and serves the three districts of Harrogate Borough, Knaresborough Urban, and Knaresborough Rural Districts. It is situated at Thistlehill, near Knaresborough. It contains 50 beds, and three diseases, viz. : Scarlet Fever, Enteric Fever, and Diphtheria, can be treated concurrently.

The Smallpox Hospital, which is also under the control of the Joint Hospital Committee, is situated on the Corporation Farm just outside the Borough boundary. It contains 28 beds, and is kept in a state of constant readiness to receive patients.

WEEKLY NOTIFICATIONS OF INFECTIOUS DISEASES

Week ending	Small Pox	Diphtheria	Erysipelas	Scarlet Fever	Enteric Fever	Puerperal Fever	Total
Jan. 8	...	1	...	...	...	...	1
" 15	...	1	...	1	...	...	2
" 22	1	1
" 29	1	1	...	...	2
Feb. 5	1	...	...	1
" 12	1	...	...	1
" 19	...	1	...	1	...	...	2
" 26
Mar. 5	2	...	...	...	2
" 12
" 19
" 26
April 2	2	...	...	...	2
" 9	...	1	...	1	...	...	2
" 16	1	...	...	1
" 23	1	...	...	1
" 30	...	1	...	...	...	...	1
May 7
" 14	...	1	...	...	...	...	1
" 21	2	...	...	2
" 28	2	...	...	...	2
June 4	1	...	...	1
" 11	...	1	...	...	...	...	1
" 18
" 25
July 2	1	...	...	1
" 9	...	3	...	...	...	...	3
" 16
" 23
" 30	3	...	...	3
Aug. 6	1	...	...	1
" 13	1	...	...	1
" 20	1	2	...	...	3
" 27	1	...	...	1
Sept. 3	...	1	2	...	...	...	3
" 10	1	...	...	1
" 17	...	1	...	...	...	...	1
" 24	1	...	...	1
Oct. 1
" 8	1	...	...	...	1
" 15
" 22
" 29
Nov. 5	...	1	...	...	...	...	1
" 12	1	3	...	...	4
" 19
" 26	1	...	...	...	1
Dec. 3	1	...	...	1
" 10	1	...	...	1
" 17	...	1	...	1	...	...	2
" 24	...	2	...	2	...	...	4
" 31	2	...	...	2
1910	...	16	13	32	...	1	62
1909	...	16	10	33	6	2	68

Smallpox.—No cases of this disease were notified during the year. The town has been free from this disease since 1905, when one case was notified.

The Smallpox Hospital is maintained in a constant state of readiness to receive patients. This is all the more necessary, as in these days, a large, and I am afraid, increasing proportion of children are unvaccinated, and thus prompt isolation is practically our sole safeguard against the spread of infection.

Scarlet Fever.—During 1910, 32 cases of this disease were notified, one less than in the previous year. The attack rate is therefore 0·96 per thousand, and is the lowest recorded since 1899. The average rate for the ten years 1900 to 1909 was 2·74 per 1,000.

From the table showing the weekly notifications it will be seen that cases were notified fairly uniformly throughout the year, and that at no time was there any suggestion of an epidemic.

8 cases were notified from the East Ward; 6 from the Central; 3 from the West; 10 from the Bilton; and 5 from the Starbeck Ward.

The age incidence was as follows:—

Under 1 year	1-5	5-15	15-25	25-65
0	7	17	3	5

In nine instances only was the child affected in attendance at an elementary school. The schools in which the cases occurred were:—

Bilton Council, Infants	...	...	1 case
Bilton Endowed, Mixed	...	...	1 ,,
Grove Road Council, Mixed	...	...	3 ,,
" " " Infants	...	...	1 ,,
St. Robert's R.C., Infants	...	...	1 ,,
Western Council, Infants	...	...	2 ,,

In seventeen houses there occurred one case; in six houses two cases; and in one house three cases.

Of the 32 cases notified 26, or 81 per cent were removed to the Isolation Hospital. The other cases were efficiently isolated at home.

The disease was of a very mild type and no deaths occurred.

SCARLET FEVER.

Year	No.	Attack rate per 1,000	Deaths	Death rate	Case Mortality per cent	Removed to Hospital	Per-centage removed
1897	25	1.35	1	0.05	4.0	11	44.0
1898	17	0.87	0	0.00	0.0	2	11.8
1899	14	0.70	0	0.00	0.0	5	35.7
†1900	39	1.90	1	0.05	2.6	22	56.4
1901	34	1.15	0	0.00	0.0	9	26.5
1902	75	2.50	0	0.00	0.0	52	69.3
1903	42	1.40	1	0.03	2.4	20	47.6
1904	114	3.74	2	0.07	1.8	67	58.8
*1905	152	4.90	6	0.19	3.9	78	51.3
1906	114	3.62	1	0.03	0.9	72	63.2
1907	117	3.66	2	0.06	1.7	86	73.5
1908	114	3.56	1	0.03	0.9	76	66.7
1909	33	1.00	1	0.03	3.0	23	69.7
1910	32	0.96	0	0.00	0.0	26	81.2

* Isolation Hospital opened. † Borough extended.

Diphtheria. — The accompanying table shows the incidence and mortality of diphtheria for each year since notification was put into force.

DIPHTHERIA.

Year	No.	Attack rate per 1,000	Deaths	Death rate	Case Mortality per cent	Removed to Hospital	Per-centage removed
1897	3	0.16	1	0.05	33.3	0	0.0
1898	3	0.15	2	0.10	66.7	0	0.0
1899	42	2.10	11	0.55	25.2	0	0.0
†1900	153	7.46	18	0.88	11.8	0	0.0
1901	59	2.00	9	0.31	15.3	1	1.7
1902	30	1.00	2	0.07	6.7	0	0.0
1903	27	0.90	2	0.07	7.4	3	11.1
1904	53	1.74	3	0.09	5.7	2	3.7
*1905	71	2.29	9	0.29	12.7	30	42.3
1906	119	3.78	7	0.22	5.8	53	44.5
1907	64	2.00	9	0.28	14.1	36	56.3
1908	55	1.72	6	0.19	10.9	28	50.9
1909	16	0.48	0	0.00	0.0	12	75.0
1910	16	0.48	0	0.00	0.0	13	81.3

* Isolation Hospital opened. † Borough extended.

During the year 16 cases were notified, giving an attack rate of 0·48 per 1000. A similar number was notified during 1909.

A reference to the table of weekly notifications will show that cases kept cropping up fairly regularly during the year. The cases occurred in the various Wards as follow:—

East Ward	...	...	5 cases.
Central Ward	...	...	2 „
West Ward	...	...	4 „
Bilton Ward	...	...	4 „
Starbeck Ward	...	...	1 „

The age incidence is shown in the following table:—

Under 1 year	1-5	5-15	15-25	25-65
0	2	11	2	1

8 cases occurred in children attending elementary schools. The schools affected were:—

Bilton Council, Infants	...	...	1 case.
Bilton Endowed, Infants	...	...	1 „
Grove Road Council, Mixed	...	...	1 „
„ „ Infants	...	...	1 „
Oatlands Council, Infants	...	...	1 „
Western Council, Mixed	...	...	3 cases.

One case occurred in each of 14 houses, and two cases occurred in one house.

13 of the 16 cases notified, or 81 per cent., were removed to the Isolation Hospital. The throats of patients are “swabbed” immediately upon admission to hospital, and the swab is sent to the West Riding Laboratory at Wakefield for bacteriological examination. I am informed that in four instances a negative result was obtained. In two of these cases it is almost certain that the disease was scarlet fever and not diphtheria, and it is possible that the other two were not true diphtheria. (No correction has been made for these cases in the figures given above.)

It is a matter for congratulation that no fatal cases occurred.

The smoke test was applied to the drains of every house in which a case of diphtheria had occurred, with the following results:—

In ten houses drains were more or less defective; in four houses no defects were found; and in one house no defects were found, but the drain was completely blocked.

On the owners' attention being drawn to these defects, they were at once repaired.

I do not wish to suggest that defective drainage has anything more than an indirect influence upon the causation of diphtheria. By lowering the general health, it may make an individual more liable to develop diphtheria if brought into contact with the infection. But I believe that in the great majority of cases the infection is derived from a previous case. It has been shown that the diphtheria bacillus may be found in the throats of patients long after they are apparently quite cured, and not only so, but it is occasionally found in the throats of people who apparently have never suffered from diphtheria. Bearing in mind the existence of these "carrier cases" as they are called, which are quite capable of spreading the disease, it is easy to see how difficult it is to trace the source of infection.

Enteric Fever.—It is a subject for considerable congratulation that I am able to report that no case of Enteric Fever occurred during the year. In the early part of the year one case was notified as suffering from Enteric Fever, but the medical practitioner in attendance came to the conclusion, upon further consideration, that his patient was suffering from tuberculosis, and he thereupon withdrew his certificate. This patient died a few months later from phthisis.

The incidence and mortality of Enteric Fever in Harrogate since 1897 is set out in the following table.

ENTERIC.

Year	No.	Attack rate per 1,000	Deaths	Death rate	Case Mortality per cent	Removed to Hospital	Per- centage removed
1897	4	0.22	0	0.00	0.0	0	0.0
1898	9	0.46	2	0.10	22.2	0	0.0
1899	7	0.35	4	0.20	57.1	0	0.0
†1900	13*	0.63	5*	0.24	38.4	6	46.1
1901	72	2.44	12	0.41	16.7	10	13.9
1902	12	0.40	4	0.13	33.3	0	0.0
1903	9*	0.30	1	0.03	11.1	3	33.3
1904	3	0.09	0	0.00	0.0	0	0.0
‡1905	4	0.13	0	0.00	0.0	0	0.0
1906	5	0.16	1	0.03	20.0	1	20.0
1907	4	0.13	1	0.03	25.0	1	25.0
1908	5	0.16	1	0.03	20.0	2	40.0
1909	6	0.18	1	0.03	16.7	4	66.7
1910	0	0.00	0	0.00	0.0	0	0.0

* Including Continued Fever.

† Borough extended.

‡ New Isolation Hospital opened.

Measles.—The town was practically free from Measles during the first part of the year, but in August the disease made its appearance in epidemic form, principally in the Starbeck and Bilton Wards. An endeavour was made to control the epidemic by prompt exclusion of all infected children from attendance at the infant schools, and this endeavour was partially successful in Starbeck. In the Bilton Ward, however, the disease spread so rapidly that it was found necessary to close the Infant Departments of the Bilton Council, and Bilton Endowed Schools. At the end of last year and the beginning of the present year, it seemed as if the epidemic were spreading to Grove Road Council School, some 30 or 40 cases being notified from this school. I am glad to say, however, that prompt exclusion of infected children was apparently successful, and that no further headway was made. At the time of writing this (March, 1911) the town, so far at any rate as the elementary schools are concerned, seems to be free from this disease.

The accompanying table shows the monthly variation in the number of cases notified from the elementary schools since this form of notification was adopted.

Three deaths were registered as due to Measles; all were children under 5 years of age, and all occurred in the Bilton Ward. The following table gives the death-rate from Measles since 1901.

1901	...	0·00	1906	...	0·44
1902	...	0·00	1907	...	0·03
1903	...	0·27	1908	...	0·00
1904	...	0·03	1909	...	0·18
1905	...	0·00	1910	...	0·09

NOTIFICATIONS FROM SCHOOLS.

	Measles.	Whooping Cough.	Chicken Pox.			
May	...	1	...	2	...	3
June	...	1	...	7	...	4
July	...	5	...	3	...	2
August	...	1	...	2	...	0
September	...	182	...	2	...	9
October	...	116	...	2	...	7
November	...	65	...	0	...	3
December	...	29	...	1	...	0
Totals	...	410	...	19	...	28

Whooping Cough.—This disease is also non-notifiable and my knowledge of its prevalence is obtained from the death returns and from the school notifications.

19 cases were notified from the schools, 4 deaths occurred, all of which were children under 5; 3 deaths occurred in the Central Ward, and 1 in the Bilton Ward.

The death-rate is shown in the following table:—

1901	...	0·00	1906	...	0·00
1902	...	0·30	1907	...	0·06
1903	...	0·13	1908	...	0·19
1904	...	0·39	1909	...	0·12
1905	...	0·29	1910	...	0·12

Diarrhœa.—7 deaths were caused by this disease. The equivalent death-rate is 0·21 per 1,000. 5 deaths occurred in children under 1 year of age, and 2 in children under 5.

As many of the deaths which are registered as being due to enteritis are really caused by diarrhœa, it is necessary to take these into account also.

6 deaths were due to some form of enteritis, of which 4 occurred in children under 1 year of age, and 2 in children under 5 years.

The subjoined table shows the mortality from these diseases since 1901.

Year.	Diarrhœa.		Enteritis.		Diarrhœa and Enteritis.	
	No.	Rate.	No.	Rate.	No.	Rate.
1901 ..	15	0·52	7	0·24	22	0·76
1902 ...	2	0·07	7	0·23	9	0·30
1903 ...	3	0·10	10	0·33	13	0·43
1904 ...	7	0·23	10	0·33	17	0·56
1905 ...	5	0·16	8	0·26	13	0·42
1906 ...	15	0·48	12	0·38	27	0·86
1907 ...	0	0·00	5	0·16	5	0·16
1908 ...	6	0·19	4	0·13	10	0·31
1909 ...	2	0·06	5	0·15	7	0·21
1910 ...	7	0·21	6	0·18	13	0·39

This group of diseases is largely influenced by climatic conditions, the mortality being usually higher in warm, dry seasons, and lowest in cold, wet seasons. But it has been shown that flies carry the germs of these diseases, and are largely responsible for their causation and spread.

They are, to a large extent, preventable diseases, and perfect cleanliness in the handling and storing of food-stuffs, and the prompt removal of all collections of decaying vegetable matter, manure, etc., to a distance from dwelling houses, will do a great deal in preventing their occurrence.

Puerperal Fever.—One case of this disease was notified during 1910, and one death which had not been previously notified, was registered as being due to causes which

are classified by the Registrar General under this heading. The death-rate was therefore 0·03. In 1909 two cases were notified, both of which recovered.

Three other deaths were registered as being due to causes associated with child-birth. There were, therefore, 4 deaths which were caused directly or indirectly by child-birth. This is at the rate of one death to 157 live births.

Tuberculosis.—17 deaths were caused by some form of Tuberculosis; of these 12 were due to Phthisis (Tuberculosis of the lung) and the death-rate from this disease was 0·36 per 1,000. This is the lowest rate of which I have any record.

Other forms of Tuberculous disease accounted for 5 deaths, and a death-rate of 0·15, which is also the lowest on record.

The following table shows the number of deaths, and the death-rate from Phthisis and other Tuberculous diseases since 1896.

Year.	Phthisis.		Other Tuberculous Diseases.		All Tuberculous Diseases.	
	No.	Rate.	No.	Rate.	No.	Rate.
1896	20	1·14	11	0·63	31	1·76
1897	19	1·03	7	0·38	26	1·41
1898	17	0·87	14	0·72	31	1·59
1899	18	0·90	6	0·30	24	1·20
1900	17	0·57	6	0·20	23	0·77
1901	17	0·59	18	0·62	35	1·21
1902	27	0·90	12	0·40	39	1·30
1903	35	1·16	23	0·77	58	1·93
1904	22	0·72	10	0·33	32	1·05
1905	28	0·90	13	0·42	41	1·32
1906	21	0·67	11	0·35	32	1·02
1907	30	0·97	3	0·09	33	1·06
1908	31	0·97	7	0·22	38	1·19
1909	26	0·79	7	0·21	33	1·00
1910	12	0·36	5	0·15	17	0·51
Av., 1900-1909		0·82		0·36		1·18

A system of voluntary notification (without fee) was adopted some years ago, but it has proved of very little value. Not one case was voluntarily notified to the department during 1910.

In accordance with the provisions of the Public Health (Tuberculosis) Regulations, 1908, three cases were notified by Poor Law Medical Officers, two of which died within one month of notification.

No treatment is provided locally for cases of Phthisis, and the only means at our disposal to combat the disease are :—

1. Notification of cases.
2. Free bacteriological examination of sputum.
3. Visits and advice by the officers of the department.
4. Disinfection of infected houses.

It is evident that these are dependent upon cases coming to the knowledge of the department, and where, as happens now, the first intimation that is received is the notice of death having occurred, very little can be done beyond disinfecting the house.

Unfortunately, we have no power to insist upon disinfection except in Poor Law cases, and though it is always offered, and the necessity for disinfection impressed upon the relatives, they are, in many instances, very unwilling to have anything done. During the year two houses, both Poor Law cases, were disinfected by the department ; in one other case disinfection was carried out by the relatives ; in the remaining cases it was not found possible to do any disinfection. In some of these last, no doubt a certain amount of disinfection was done by the relatives, but in some others, disinfection was positively refused, and I am afraid that in these nothing at all was done.

This is a direction in which the medical practitioners could be of great service, first by notifying cases, and secondly by impressing upon the people the necessity for disinfection.

Cancer.—37 deaths were registered as due to some form of malignant disease. This gives a death-rate of 1·10 per 1,000, which, as the following table shows, is with one exception the highest rate recorded in Harrogate since 1901.

Year	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Rate	0·59	0·63	0·93	1·41	0·97	0·98	0·81	0·75	0·85	1·10

If the deaths of two visitors be excluded, the rate is 1·04. 8 of the deaths occurred in males and 29 in females. There were only 3 deaths under the age of 40; there were 28 over the age of 55 years.

The following table shows the organs affected:—

	Males.	Females.
Uterus	—	7
Stomach and Oesophagus ...	2	7
Intestines	1	5
Breast	—	5
Liver	—	3
Tongue and Throat ...	4	1
Bladder	1	—
Mediastinum	—	1
	—	—
	8	29

Disinfection.—53 houses were disinfected by the formalin spray or by fumigation with sulphur.

The following list shows the number of articles of bedding, clothing, etc., which were disinfected in a Washington-Lyons steam disinfector at the Joint Isolation Hospital:—

Beds	43
Mattresses	38
Blankets... ..	124
Sheets	74

Carried forward ... 279

	<i>Brought forward</i>	...	279
Quilts	...	...	51
Pillows	...	...	62
Bolsters	...	...	31
Carpets	...	...	47
Curtains	...	...	14
Rugs	...	...	35
Articles of Clothing	..	...	115
Towels	...	...	23
Miscellaneous	...	...	113
			<hr/>
	Total	...	770

Bacteriological Examination.—For some years this has been provided by the County Council at their laboratory at Wakefield.

By the kindness of Dr. Kay, the County Medical Officer, I am able to give the following table, which shows the number of specimens which were sent by medical men in Harrogate.

Throat Swabs (Diphtheria)	...	...	18
Sputum (Tuberculosis)	...	...	3
Ringworm	...	...	1
Blood Serum (Enteric)	..	...	2

Meteorology.—The accompanying table, which has been compiled for me by Mr. Rivers, the Borough Meteorologist, shows the principal meteorological features for the year.

METEOROLOGICAL TABLE FOR 1910.

MONTH	RAINFALL			TEMPERATURE				DIRECTION OF WIND				Bright Sunshine (Campb' Stokes Recorder) Hours	
	Total inches	Greatest in 24 hours		Mean	Maximum		Minimum	No. of nights at or below 32 deg.	S. W. Quadrant including W. days	S. E. Quadrant including S. days	N. E. Quadrant including E. days		N. W. Quadrant including N. days
		Inches	Date		D'grees	Date							
January ...	4.17	0.57	27th	35.6	53.0	2nd	14.3	27th	18	5	1	6	65.0
February ...	3.04	0.53	20th	38.4	51.1	17th	26.1	25th	15	10	0	3	78.5
March ...	0.59	0.18	8th	42.0	55.8	30th	28.7	18th	7	10	3	9	143.5
April ...	2.72	0.46	14th	42.8	59.1	18th	25.0	1st	3	5	4	11	130.4
May ...	2.46	0.46	5th	49.8	73.9	26th	33.5	11th	0	2	8	12	185.0
June ...	2.95	0.79	22nd	56.3	75.7	19th	40.8	17th	0	4	7	9	186.4
July ...	3.25	0.97	5th	55.1	72.2	13th	43.0	4th	0	4	7	10	155.5
August ...	4.14	0.72	28th	57.5	71.2	14th	44.9	23rd	0	9	3	4	138.6
September	0.24	0.09	26th	52.6	69.3	28th	37.7	21st	0	5	4	15	107.4
October ...	3.74	0.94	17th	49.6	66.8	5th	37.9	30th	0	7	12	6	91.8
November ...	3.69	0.82	10th	36.4	50.5	13th	26.5	24th	17	5	1	12	86.4
December ...	3.09	0.73	3rd	41.6	53.0	23rd	28.2	28th	4	12	4	3	37.5
Year ...	34.08	0.97	July 5th	46.5	75.7	June 19th	14.3	Jan. 27th	64	78	54	100	1406.0

C. E. RIVERS, F. R. Met. Soc., Borough Meteorologist.

Water Supply.—The water supply has been in the hands of the Corporation since 1898. I am indebted to your Water Engineer for the following account:—

“The water supply to the Borough of Harrogate is obtained from impounding reservoirs, fed from upland gathering areas situate some 4 or 5 miles in a westerly direction from the town.

The watersheds consist of moor and exceedingly rough pasture, there being no arable land, and the geological formation is clay and shale upon the millstone grit.

The whole of the water supplied is passed through the ordinary slow sand or patent Candy oxydizing filters, the filtrate having to traverse a bed of broken limestone.

There is no shortage, and the water is of a pure and wholesome nature, of high organic purity, the total hardness being some 4°, and the permanent hardness about 3½°.

In no case has lead or any other dangerous metal been found upon examination.”

Several samples have been analysed both chemically and bacteriologically during the year, and the analyst has uniformly reported that the water is of good quality for drinking and domestic purposes. In no instance has any plumbo-solvent action been detected, nor have any cases of lead-poisoning come to my knowledge.

The supply is a continuous one, and is taken direct from the mains, no storage cisterns being provided.

Private Water Supply.—There are now only 14 houses in the Borough which do not derive their water from the Corporation mains. These houses are situated in an outlying part of the Borough, and obtain their water from three shallow

wells. Samples of water from these wells were analysed during the year, and in each case the Analyst reported that the water was a good and wholesome water.

During the year 11 houses were supplied with water from the Corporation mains, and the use of three wells from which their water had previously been obtained was discontinued.

Sewerage and Sewage Treatment.—For the following information I am indebted to the Borough Surveyor.

NEW SEWERS.—With the exception of a short length at the rear of Oxford Street, no new sewers have been laid during the year.

SEWAGE TREATMENT.—The sewage from Harrogate is treated at two separate works, one near the northern boundary of the Borough, and the other about four miles from the southern boundary. The treatment in each case is similar, and may be briefly described as the open septic tank, and the intermittent percolating bed with a further treatment on land.

The additions to the Northern Sewage Works for more effectively dealing with the sludge and the provision of an additional percolating bed, were completed during the year.

No complaint has been received as to any pollution of rivers or streams caused by the effluent.

Sanitary Conveniences.—During the year ten privies and two waste-water-closets were converted into sanitary water-closets, and three additional water-closets were erected.

At the end of the year there were in the town :—

Privies, 25.

Earth-closets, 31.

Waste-water-closets, 137.

The privies and waste-water-closets are practically all in the added area, and when opportunity arises they are converted into water-closets.

Removal of House Refuse.—This work is performed by the Corporation, and has been satisfactorily carried out during the year.

Dustbins are emptied once a week, and ashpits at least once a month. During the summer the refuse from some of the hotels and larger boarding-houses is removed more frequently—in some cases daily—and an attempt is now being made to have all ashpits emptied at least once a fortnight.

The refuse is disposed of by tipping upon two tips, one on the Corporation farm, situated just outside the boundary, and one at the Diamond Brick Yard, Starbeck.

The Diamond Brick Yard is in close proximity to dwelling houses, and its use as a refuse tip cannot be considered satisfactory. Negotiations are at present in progress to obtain a more suitable site outside the Borough. When these negotiations are satisfactorily concluded, the tipping of refuse at the Diamond Brick yard will be discontinued.

During the year 51 ashpits have been abolished and replaced by dust-bins, and at the end of the year there were 320 ash-pits and 8,725 dust-bins in the town.

Factory and Workshops Acts.—There are 169 workshops on the register. These have been inspected regularly throughout the year. The defects which were discovered are set out in the accompanying table.

Annual Report of the Medical Officer of Health

for the year 1910, for the Borough of Harrogate,

on the Administration of the Factory and
Workshop Act, 1901, in connection with

FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK.

1.—INSPECTION OF FACTORIES, WORKSHOPS, AND WORKPLACES.

Including Inspections made by
Sanitary Inspectors or Inspectors of Nuisances.

PREMISES.	Number of		
	Inspections	Written Notices	Prosecutions
Factories (Including Factory Laundries).	57	3	...
Workshops Including Workshop Laundries).	1308	7	...
Workplaces (Other than Outworkers' premises included in Part 3 of this Report)	...	...	...
Total	1365	10	Nil.

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS,
AND WORKPLACES.

Particulars	Number of Defects			Number of Prosecutions
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness	2	2	...	...
Want of ventilation ... ..	...	...	...	...
Overcrowding	1	1	...	..
Want of drainage of floors ... ..	...	...	...	...
Other nuisances	13	13	...	...
Sanitary accommodation { insufficient	1	1	...	...
{ unsuitable or defective	6	6	...	...
{ not separate for sexes ... ..	...	...	...	...
<i>Offences under the Factory and Workshop Act :</i>				
Illegal occupation of underground bakehouse (s. 101) .. ..	...	...	...	...
Breach of Special sanitary requirements for bakehouses (ss. 97 to 100)	11	11	...	..
Other offences ... ..	...	...	..	...
(Excluding offences relating to outwork which are included in Part 3 of this Report)				
Total	34	34	Nil	Nil

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

3.—HOME WORK.

NATURE OF WORK*	OUTWORKERS' LISTS, SECTION 107.										OUTWORK IN UN- WHOLESALE PREMISES, SECTION 108			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.																			
	Lists received from Employers					Addresses of Outworkers ‡		Prosecutions			Inspection of Outworkers' premises			Instances			Orders made (S. 110).			Prosecutions (Sections 109, 110)													
	Sending Twice in the year		Once in the year			Forwarded to other Councils		Received from other Councils		Keeping or sending lists			Failings to keep or per- mit inspection of lists			Failings to send lists			Notices served			Prosecutions			Instances			Orders made (S. 110).			Prosecutions (Sections 109, 110)		
	Lists † (2)	Con- tract'rs (3)	Outworkers † Work- men (4)	Lists (5)	Con- tract'rs (6)	Work- men (7)	Received from other Councils (8)	Forwarded to other Councils (9)	Notices served on Occupiers as to lists (10)	Failings to keep or per- mit inspection of lists (11)	Failings to send lists (12)	Inspection of Outworkers' premises (13)	Instances (14)	Notices served (15)	Prosecutions (16)	Instances (17)	Orders made (S. 110). (18)	Prosecutions (Sections 109, 110) (19)															
(1)																																	
Wearing Apparel - Making, etc. ...				2	3																												
Tents ...				1	1																												
No Outworkers' Lists received for any of the other trades enumer- ated in the Home Office Table																																	

* If an occupier gives out work of more than one of the classes specified in column 1, and subdivides his list in such a way as to show the number of workers in each class of work, the list should be included among those in column 2 (or 5 as the case may be) against the principal class *only*, but the outworkers should be assigned in columns 3 and 4 (or 6 and 7) into their respective classes. A footnote should be added to show that this has been done.

† The figures required in columns 2, 3, and 4 are the *total* number of the lists received from those employers who comply strictly with the statutory duty of sending *two* lists each year and of the entries of names of outworkers in those lists. The entries in column 2 must necessarily be *even* numbers, as there will be two lists for each employer—in some previous returns odd numbers have been inserted. The figures in columns 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

‡ In view of the wide discrepancies found to exist between the totals in the two columns when the returns are added together, it is desired that care may be taken to give exact figures. Only those addresses should be counted which have actually been received from or forwarded to other Councils during the year covered by the report.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.		Number
Important classes of workshops, such as workshop bakehouses may be enumerated here.	Bakehouses	51
	Millinery and Dressmaking ...	64
	Tailors	26
	Joinery, etc.	28
Total Number of Workshops on Register		169

5.—OTHER MATTERS.

Class.	Number	
Matters notified to H.M. Inspector of Factories:—		
Failure to affix Abstract of the Factory and Workshop Act (s. 133)		
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)	Notified by H.M. Inspector	5
	Reports (of action taken) sent to H.M. Inspector ...	5
Underground Bakehouses (s. 101).—		
Certificates granted during the year	Nil.	
In use at the end of the year	12	

Date, April 22nd, 1911.

(Signature) JAMES MAIR, *Medical Officer of Health.*

NOTE.—The Factory and Workshop Act, 1901 (s. 132), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office). If the Annual Report is presented otherwise than in print, it is unnecessary to include in the copy sent to the Home Office the portions which do not relate to factories, workshops, workplaces, or homework. The duties of Local Authorities and the Medical Officer of Health under the Act of 1901 are detailed in the Home Office Memorandum of December, 1904. A further Memorandum, on the Home Work Provisions of the Factory Act, was issued to all District Councils and Medical Officers of Health in October, 1906.

Five references were received from H.M. Inspector of Factories, and the action which was taken has in each case been reported to him.

Housing, Town Planning, etc., Act, 1909.—

During the year 36 houses have been inspected in accordance with the provisions of this Act.

In six houses no defects were found; the remaining 30 houses were found to be more or less defective. The principal defects discovered were as follow :—

Dampness	...	...	...	...	...	11
Inefficient ventilation	...	...	...	...	...	22
Defective or dilapidated walls, floors, etc.	...	...	...	...	...	30

The owner of two houses situated in Regent Parade, and which are included in the above tabular statement, intimated to the Committee that he intended to close the houses, and a closing order thereupon became operative. As no steps have been take to put these houses into repair, the Committee is now considering the question of ordering their demolition.

In 23 houses the necessary works were carried out by the owners, and these houses have been made reasonably habitable. In five cases the works had not been completed at the end of the year.

New Houses.—By the courtesy of the Borough Surveyor, I am enabled to present the following table, which shows the number of new houses which have been erected in each Ward during the year.

Central.	West.	East.	Bilton.	Starbeck.	Borough.
0	28	24	64	0	116

Common Lodging Houses.—There are no common lodging houses registered in the town. There is, however, reason to believe that certain houses, though not registered as

such, are occasionally, at any rate, used as common lodging houses. In the early part of the year proof was obtained that two adjoining houses in the same occupation were used for this purpose. The facts were reported to the Sanitary Committee, and it was decided to prosecute the occupier. This was done, and the case was dismissed by the magistrates upon the payment of costs.

Shortly afterwards, application was made to have these houses registered. The occupier was informed that one of the houses was quite unsuitable, but that the other would be registered, provided certain repairs and alterations were carried out. This has not been done, and no further steps have been taken in the matter.

Slaughter Houses.—There are four slaughter houses within the Borough, all of which are registered. These have been inspected as frequently as possible, and as a rule have been found to be kept in good condition. On two occasions, however, the premises were found to be in a dirty condition, but on drawing the attention of the occupiers to this, it was at once remedied.

During the year proceedings were taken against two butchers for slaughtering in unlicensed premises.

In one instance the defendant pleaded guilty, and a penalty of £1 and costs was inflicted. In the other instance defendant admitted the offence, but the magistrates considered that there were mitigating circumstances, and dismissed the case.

Meat Inspection.—On September 29th the carcase of a pig was submitted for inspection by the butcher who had slaughtered it, and on examination it was found to be extensively affected with tuberculosis. The butcher at once surrendered the carcase, which was subsequently destroyed. No other unsound meat has been discovered during the year.

No provision has yet been made for efficiently carrying out the work of meat inspection, but as the Sanitary Committee has at present under consideration the advisability of appointing an additional inspector who would be specially qualified for this work, I do not propose discussing the subject further.

Milk Supply, Cowsheds.—At the end of the year there were 20 cowkeepers on the register, as against 22 at the end of 1909. During the year two cowkeepers gave up business, and two businesses have changed hands.

These cowsheds have been regularly inspected throughout the year, and the following improvements have been carried out:—

Inside walls coated with cement to height of 4 ft. ...	6
Paving of shed repaired	2
Yards and approaches concreted	1
Drainage repaired or reconstructed	2
Manure pits provided	1
Sanitary troughs provided	2

The general condition of the cowsheds has been considerably improved of late, but much yet remains to be done, more especially in the way of obtaining a higher standard of cleanliness, both of cowsheds and cows. A printed card, of which a copy is given underneath, was obtained by Mr. Kemp, chief Sanitary Inspector, some two or three years ago, and issued to the cowkeepers. A copy of this card is displayed in every cowshed, but I am afraid that the cowkeepers do not pay as much attention to the instructions as could be wished. The card is as follows:

RULES FOR MILKERS.

Let cleanliness be your motto in everything connected with the production of milk.

COWSHEDS—Clean walls, ceilings, floors, window bottoms, and corners.

COWMAN—Clean hands, overalls, and cap when milking.

UTENSILS—Clean cans, utensils, milking stool, etc.

Don't keep the milk vessels in the cowhouse.

Don't mix the milk of a poorly cow with milk which is intended for sale.

N.B.—This card to be constantly hung up in the cowhouse.

At the beginning of this year (1911) the Sanitary Committee decided to appoint a Veterinary Inspector, whose duty it would be to inspect the cowsheds and cows in the Borough at least three times a year. Whilst this officer's primary function would be the detection of tuberculosis among the cows, I believe that the regular inspection which can then be carried out, will lead to an improvement in the general condition of both cowsheds and cows, and I hope that the appointment will soon be made.

Purveyors of Milk.—At the end of 1910 the register contained the names of 108 purveyors of milk. 70 of these resided outside the Borough, and over their premises we can exercise no supervision or control. The premises of the 38 milk sellers who live in the Borough have been regularly inspected, and as a rule have been found clean and well kept.

Bakehouses.—There are 51 bakehouses, including 12 underground bakehouses, on the register. These have been regularly inspected during the year, and on 11 occasions defects were found. On attention being directed to them, these were all remedied.

Food and Drugs Acts—74 samples of milk and 4 of cream were purchased during the year for analysis. In each case the purchase was made formally. With the exception of two samples of new milk, all were found by the analyst to be genuine. The percentage of adulterated samples was therefore 2.6.

One of the adulterated samples of milk contained 6·8 per cent. of added water; the vendor of this sample was warned. The vendor of the other adulterated sample of milk, which contained 10·6 per cent. of added water, and was also deficient in fat to the extent of 20 per cent., appeared before the Sanitary Committee, and as his explanation was considered satisfactory, no further steps were taken.

In no case was any preservative discovered.

Offensive Trades.—One offensive trade is carried on in the Borough. This is a tripe boiling business, which is carried on in connection with one of the slaughter-houses. This has been regularly inspected, and is carried on under fairly satisfactory conditions.

Prosecutions.—The legal proceedings taken in connection with slaughtering in unlicensed premises and using an unregistered house as a common lodging house, have already been referred to. With these exceptions, no other proceedings were found necessary.

Drain Testing.—During the year the smoke test was applied to the drainage systems of 234 houses, and in 186 cases the drains were found to be more or less defective. Many of the defects were slight, but in 55 instances it was found necessary to reconstruct the drains.

Reconstruction of Drains.—The following table shows those houses (91 in number) in which the drainage systems were so defective as to require reconstruction. Included in this list are the 55 houses mentioned above. The work of reconstruction was carried out in all cases under the supervision of the Sanitary Inspector.

Albert Terrace, 6, 8, 10, 12.

Avenue Terrace, 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21.

Beulah Street, 17.

Beech Grove Terrace, 4, 6.
Bachelor Gardens, 2 cottages.
Bogs Lane, Harrison Hill House.
Cliffe Road, 2, 4.
Cambridge Crescent, 3, 4.
Duchy Road, 44, 46, 72.
Dragon Road, 60.
East Park Road, 9.
Grove Street, 1, 20.
Granby Road, 4.
Hyde Park Road, 10.
Knaresborough Road, 8.
Lancaster Park Road, 5, 11.
Mount Street, 44, 46.
Mayfield Grove, 40.
North Park Road, 5, 12.
Omega Street, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20.
Oxford Street, 37, 39, 41, 43, 45.
Parliament Street, 7, 9.
Pannal Ash Road, Blythe Nook Farm.
Park Drive, 25.
Prospect Place, 2, 3, 4, 5.
Queen's Road, 3.
Russell Street, 21, 23, 29.
Ripon Road, 5.
Station Parade, 88, 90, 92, 94, 96.
Skipton Road, 77, 137.
St. Mary's Avenue, 8.
Studley Road, 22, 24.
Stonefall Avenue, 104.
Valley Drive, 71, 75, 107, 109.
Victoria Avenue, 12.
Wetherby Road, Woodroyd.
West End Avenue, 61.
York Place, 14, 9, 32.

Summary of routine work done during the year.—The next table, which has been compiled by the Sanitary Inspector, shows in so far as it is possible to do so in tabular form, the routine work carried out by the department.

Total number of visits and inspections	...	...	5,051
" " nuisances reported by Inspector	...	...	1,228
" " " " residents	...	...	77
" " " abated	...	...	1,235
Statutory Notices served	...	...	181
Inspection of houses after complaint of nuisances	...	...	52
Drains tested	...	...	234
Drains tested and found defective	...	...	186
Additional Water Closets provided	..	...	3
Blocked drains opened out, cleansed, and put into proper working order	...	...	36
Defective sink pipes repaired	...	...	48
Defective house drains repaired	...	...	287
Defective spouting of eaves of buildings repaired	...	...	65
Defective closet cisterns repaired or renewed	...	...	47
Defective closet basins renewed	...	...	20
Defective house walls repaired..	...	...	33
Defective house floors repaired	...	...	39
Dilapidated dust bins replaced with new ones	...	...	249
Dirty or defective water closets cleaned or repaired...	...	...	75
Dirty or defective waste water closets cleaned or repaired	...	...	4
Drainage or sanitary arrangements of houses dealt with	...	...	458
Drainage systems ventilated with 4in. shafts	...	...	93
House drains disconnected from sewer	...	...	19
Insanitary ashpits removed, and dustbins provided...	...	...	51
Insanitary privies converted into water-closets	...	...	10
Inspecting chambers built on house drains	..	...	34
Offensive accumulations removed	...	...	15
Rain water pipes disconnected from drains, and made to discharge over gully traps	...	...	50

Waste-water-closets removed, and sanitary ones substituted	2
Rain water pipes repaired	30
Soil pipes ventilated with 4in. shafts	11
Bake-houses inspected	624
Bake-houses found defective	11
Cowsheds and milk shops inspected	93
Factories and Workshops inspected	1365
Factories and Workshops found defective	23
Visits to houses in which infectious disease existed...	133
Houses disinfected	44
House to house inspection	39
Sink pipes trapped or disconnected from drains ...	7
Yards paved	59
Yard paving repaired	108
Insanitary sinks removed and sanitary ones provided	13
Pedestal closets provided in place of boxed-in ones ...	23
Windows repaired or made to open	78
Insufficient ventilation remedied	11
Dampness in houses remedied	12
New sinks provided	10
Cess pools done away with	1
Defective roofs repaired... ..	5
Defective soil pipes repaired	3
Receptacles for manure provided	1
Drains under houses taken up	6
Drains through houses taken up and cast-iron pipes substituted	2
Old pan closets replaced with new sanitary ones ...	1
Miscellaneous	5

In addition to the above, 584 blocked gullies, drains, and closets have been cleared by the man who makes periodical inspection of house drainage, and carries out the whole of the disinfecting in connection with infectious diseases.

TABLE I.
VITAL STATISTICS OF WHOLE DISTRICT DURING 1910 AND PREVIOUS YEARS.

Year	Population estimated to middle of each year	Births		Total Deaths Registered in the District			Total Deaths in Public Institutions in the District	Deaths of Non-residents registered in Public Institutions in the District and Visit'rs	Deaths of Residents registered in Public Institutions beyond the District	Nett Deaths at all Ages belonging to the District		
		Number	Rate *	At All Ages		Number				Rate *	Number	Rate *
				Under 1 Year of Age	Rate per 1,000 Births register'd							
1	2	3	4	5	6	7	8	9	10	11	12	13
1900	20,500	421	17.0	61	144	354	14.0	31	34	1	321	15.6
1901	29,500	760	19.7	110	144	428	17.4	30	48	3	383	13.2
1902	30,000	695	23.1	79	113	390	14.7	21	37	1	354	11.8
1903	30,000	712	23.7	83	116	416	13.0	30	38	1	379	12.6
1904	30,500	734	24.0	85	115	414	13.7	29	33	3	384	12.5
1905	31,000	700	22.6	92	131	417	13.5	31	40	11	378	12.2
1906	31,500	659	20.9	86	130	429	13.8	38	60	12	381	12.1
1907	32,000	631	19.7	44	69.7	402	13.6	47	49	17	370	11.5
1908	32,000	555	17.3	63	113	397	12.4	40	47	8	358	11.2
1909	33,000	640	19.4	55 1 visitor included	86	411	12.4	46	63	10	358	10.8
Averages for years 1900-1909	30,000	651	20.7	76	116.2	406	13.9	34	45	7	367	12.4
1910	33,500	629	18.8	57	90.6	378	11.3	55	16 †	20	382	11.4

* Rates in columns 4 and 8 should be calculated per 1,000 of the estimated gross population. In districts in which large public institutions seriously affect the statistics, the rates in column 13 may be calculated on the nett population, obtained by deducting from the estimated gross population the average number of inmates not belonging to the district in such institutions.

† Non-residents only.

NOTE.—The deaths to be included in column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in column 12 are the number in column 7, corrected by the subtraction of the number in column 10, and the addition of the number in column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public Institutions" to be taken into account for the purposes of these Tables, are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses, and lunatic asylums. A list of Institutions in respect of the deaths in which corrections have been made will be found on page 44.

Area of District in acres (exclusive of area covered by water), 3,276; Total population at all ages, 28,423; Number of inhabited houses, 5,631; Average number of persons per house, 4.99. At census of 1901.

TABLE I.—Continued.

I. Institutions within the District receiving sick and infirm persons from outside the District.	II. Institutions outside the District receiving sick and infirm persons from the District.	III. Other Institutions, the deaths in which have been distributed among the several localities in the District.
Harrogate Infirmary Royal Bath Hospital Home for Incurables Police Convalescent Home	Knaresbro' Union Workhouse General Infirmary, Leeds	The Asylum, Menston The Asylum, Wakefield Bootham Bar Asylum, York Mayfield Nursing Home, Pannal
Is the Union Workhouse within the District? No.		

TABLE II.
VITAL STATISTICS OF SEPARATE LOCALITIES IN 1910 AND PREVIOUS YEARS.

NAMES OF LOCALITIES	ENTIRE BOROUGH.				EAST WARD.				CENTRAL WARD.				WEST WARD.				BILTON WARD.				STARBECK WARD.			
	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
Year.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1900	20,500	421	321	61	8,640	...	...	...	...	...	...	...	7,340	...	...	...	3,120	...	...	...	3,380	...	...	...
Borough ex- tended	29,500	760	383	110	8,850	239	133	41	5,820	121	57	12	7,800	126	88	15	3,050	104	36	13	3,480	170	69	29
1901	29,500	760	383	110	8,850	239	133	41	5,820	121	57	12	7,800	126	88	15	3,050	104	36	13	3,480	170	69	29
1902	30,000	695	354	79	9,100	232	101	26	5,870	94	75	16	8,150	136	86	15	3,200	93	40	8	3,680	139	52	14
1903	30,000	712	379	83	9,100	213	113	20	5,600	97	86	9	8,200	127	103	16	3,350	147	70	26	3,750	128	44	12
1904	30,500	734	384	85	9,200	219	103	20	5,600	99	119	15	8,300	122	89	10	3,550	155	67	23	3,900	139	36	17
1905	31,000	700	378	92	9,350	213	98	29	5,600	83	104	13	8,450	109	106	15	3,600	162	67	24	4,150	133	42	11
1906	31,500	659	381	86	9,350	194	107	29	5,600	85	64	12	8,550	113	83	6	4,000	142	63	21	4,150	129	64	18
1907	32,000	631	370	44	9,400	186	111	8	5,600	72	67	6	8,550	105	102	12	4,200	148	48	10	4,400	120	42	7
1908	32,000	555	358	63	9,400	168	104	26	5,600	70	75	5	8,550	90	88	12	4,200	129	48	9	4,400	98	43	11
1909	33,000	640	358	55	9,700	190	108	22	5,450	80	60	11	8,750	111	96	3	4,500	140	52	9	4,600	119	42	10
Averages of Years 1901 to 1909.	31,055	676	372	77	9,272	206	108	25	5,638	89	78	11	8,367	115	93	12	3,739	136	54	16	4,057	130	48	14
1910	33,500	629	382	57	9,820	203	91	12	5,370	85	68	7	8,850	102	114	11	4,800	132	69	18	4,660	107	40	9

NOTES.—(a) The separate localities adopted for this table should be areas of which the populations are obtainable from the census returns, such as wards, parishes, or groups of parishes, or registration sub-districts. Block 1 may, if desired, be used for the whole district, and blocks 2, 3, etc., for the several localities. In small districts without recognised divisions of known population, this Table need not be filled up.

(b) Deaths of residents occurring in public institutions beyond the district are to be included in sub-columns c of this Table, and those of non-residents registered in public institutions in the district excluded. (See note on Table I. as to meaning of terms "resident" and "non-resident.")

(c) Deaths of residents occurring in public institutions, whether within or without the district, are to be allotted to the respective localities according to the addresses of the deceased.

(d) Care should be taken that the gross totals of the several columns in this Table respectively equal the corresponding totals for the whole districts in Tables I and IV; thus, the totals of sub-columns a, b, and c should agree with the figures for the year in the columns 2, 3, and 12 respectively of Table I; the gross total of the sub-columns c should agree with the total of column 2 in Table IV; and the gross total of sub-columns d with the total of column 3 in Table IV.

TABLE III.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1910.

Notifiable Disease	Cases notified in whole district.							Total cases notified in each locality					No. of cases removed to hospital from each locality					
	At all Ages	At Ages—Years						Central	East	West	Starbeck	Bilton	Central	East	West	Starbeck	Bilton	Total cases removed to hospital
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards											
Small-pox
Cholera
Diphtheria (including Mem-braneous Croup) ...	16	2	11	2	1	2	2	5	4	4	4	2	4	3	1	3	13	
Erysipelas... ..	13	...	1	1	9	...	1	3	4	1	4	1	4	...	...	...	...
Scarlet Fever ...	32	8	16	3	5	...	6	8	3	5	10	4	7	3	5	7	26	
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever .	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	62	10	28	6	16	2	9	17	11	7	18	6	11	6	6	10	39	

NOTES.—The localities adopted for this table are the same as those in Tables II. and IV.
 Harrogate and Knaresborough Joint Isolation Hospital, Knaresborough. Total available beds, 50.
 Diseases that can be treated concurrently, 3.

TABLE IV.

CAUSES OF, AND AGES AT, DEATH

CAUSES OF DEATH 1	Deaths at the subjoined ages of Residents whether occurring in or beyond the District						
	All Ages	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards
	2	3	4	5	6	7	8
Small-pox ... ..	...	...	...	...	...	...	...
Measles	3	1	2	...	...	...	...
Scarlet Fever ... ..	...	...	...	...	...	...	...
Whooping Cough	4	2	2	...	...	...	...
Diphtheria (including Membranous Croup) Croup ... ..	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...
{ Enteric ... ..	...	...	...	...	...	...	...
{ Other continued ... ..	...	...	...	...	...	...	...
Epidemic Influenza	4	...	...	...	1	1	2
Cholera ... ..	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...
Diarrhœa. (See notes)	7	5	2	...	...	...	...
Enteritis. (See notes)	6	4	1	...	...	1	...
Gastritis. (See notes)	1	...	1	...	...	...	...
Puerperal Fever. (See notes)	1	...	...	...	...	1	...
Erysipelas	1	...	...	...	...	1	...
Phthisis (Pulmonary Tuberculosis)	12	...	...	...	1	11	...
Other tuberculous diseases	5	...	3	...	...	2	...
Cancer, malignant disease. (See notes)	37	...	...	...	...	21	16
Bronchitis	23	3	1	...	...	2	17
Pneumonia	21	4	3	1	1	5	7
Pleurisy	1	...	...	...	...	1	...
Other Diseases of Respiratory Organs	2	1	...	...	...	1	...
Alcoholism ... ..	...	...	...	...	...	...	...
Cirrhosis of Liver }	11	...	...	...	...	9	2
Venereal diseases ... ..	...	...	...	...	...	...	...
Premature birth	16	16	...	...	...	...	...
Diseases and accidents of parturition	3	...	...	...	...	3	...
Heart diseases	65	4	...	...	2	36	23
Accidents	7	...	...	1	...	3	3
Suicides	2	...	...	...	...	1	1
Brain and nervous system	10	...	...	...	2	5	3
Apoplexy and Hemiplegia	29	...	...	...	...	9	20
Meningitis	3	...	1	1	1	...	...
Kidney and urinary system	16	...	...	...	...	11	5
Diabetes	5	...	1	...	...	2	2
Senile decay	33	...	...	...	...	1	32
Marasmus	3	3	...	...	...	...	...
Convulsions	5	5	...	...	...	...	...
Other Septic	4	...	...	...	1	1	2
All other causes	42	9	1	3	4	17	8
ALL CAUSES	382	57	18	6	13	145	143

(See Notes.)

DURING THE YEAR 1910.

Deaths at all ages of Residents belonging to Localities, whether occurring in or beyond the District					Total Deaths whether of Residents or Non-residents in Public Institutions in the District
East 9	Central 10	West 11	Bilton 12	Starbeck 13	
...
...	...	...	3	...	...
...
...	3	...	1	...	...
...
...
...
...
1	1	2	...	...	...
...
...
1	...	1	2	3	...
1	1	1	2	1	...
...	...	...	1	...	...
1	...	...	...	...	...
1	...	...	...	...	...
3	2	3	3	1	...
...	1	2	...	2	1
11	10	6	5	5	5
5	6	3	7	2	...
7	2	6	2	4	4
1	...	...	...	...	...
...	...	...	2	...	...
4	2	3	2	...	2
...
4	1	3	5	3	1
2	...	...	1	...	1
21	10	20	9	5	6
1	2	1	3	...	6
...	...	1	1	...	...
3	...	6	...	1	4
3	7	14	4	1	1
...	...	2	1	...	1
1	2	6	3	4	3
...	1	1	2	1	2
5	9	16	2	1	1
...	...	2	...	1	...
1	1	...	1	2	...
1	1	1	...	1	4
13	6	14	7	2	13
91	68	114	69	40	55

TABLE V.

INFANTILE MORTALITY DURING THE YEAR 1910.
Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under 1 Year.
		All causes	Certified	19	1	4	3	27	3	5	4	3	2	1	3	4	1	2	2	57
	Uncertified																	
Common Infectious Diseases.	Small-pox																	
	Chicken-pox																	
	Measles										1							1
	Scarlet Fever																	
	Diphtheria, including Mem. Croup																	
	Whooping Cough									1					1			
Diarrhoeal Diseases.*	Diarrhoea, all forms			1	1	2	1		1					1				5
	Enteritis, Muco-enteritis Gastro-enteritis								1		1	1				1		4
	Gastritis, Gastro-intestinal Catarrh																	
Wasting Diseases.	Premature Birth	12			2	14		1		1								16
	Congenital Defects*	2	1	1		4	1	1						1				7
	Injury at Birth																	
	Want of Breast-Milk Starvation																	
	Atrophy, Debility, Marasmus	2		1		3	1	1		1								6
Tuberculous Diseases.	Tuberculous Meningitis*																	
	Tuberculous Peritonitis																	
	Tabes Mesenterica																	
	Other Tuberculous Diseases*																	
Other Causes.	Erysipelas																	
	Syphilis																	
	Rickets																	
	Meningitis (<i>not Tuberculous</i>)																	
	Convulsions	2				2		1						1				4
	Bronchitis													3				3
	Laryngitis			1		1												1
	Pneumonia								1						1	1	1	4
	Suffocation, overlying																	
Other Causes	1				1		1	1								1	4	
		19	1	4	3	27	3	5	4	3	2	1	3	4	1	2	2	57

* See Notes, pages 50, 51, and 52.

BIRTHS IN THE YEAR.		DEATHS IN THE YEAR.	
Legitimate	602	Legitimate Infants	52
Illegitimate	27	Illegitimate Infants	5
Deaths from all Causes and at all ages, 382			

NOTES TO TABLES IV. AND V.

- (a) In Table IV., all deaths of "Residents" occurring in public institutions, whether within or without the district, are to be *included* with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-15, to be *included* among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-residents" occurring in public institutions in the district are in like manner to be *excluded* from columns 2-8 and 9-15 of Table IV.
- (b) See notes on Table I. as to the meaning of "Residents" and "Non-residents," and as to the "Public Institutions" to be taken into account for the purposes of these Tables. The "Localities" in Table IV. should be the same as those in Tables II. and III.
- (c) All deaths occurring in public institutions situated within the district whether of "Residents" or of "Non-residents" are, in addition to being dealt with as in note (a), to be entered in the last column of Table IV. The total number in this column should equal the figures for the year in column 9, Table I.
- (d) The total deaths in the several "Localities" in columns 9-15 of Table IV. should equal those for the year in the same localities in Table II, sub-columns c. The total deaths at all ages in column 2 of Table IV. should equal the gross total of columns 9-15, and the figures for the year in column 12 of Table I.
- (e) Under the heading of "Diarrhœa" are to be included deaths registered as due to Epidemic diarrhœa, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhœa, Dysentery, and Dysenteric diarrhœa, Choleraic diarrhœa,

Cholera (other than Asiatic or epidemic), and Cholera Nostras.

Deaths from diarrhœa secondary to some other well-defined disease should be included under the latter.

Deaths from Enteritis, Muco-Enteritis, Gastro-Enteritis, and Gastritis (see under the heading Diarrhœal Diseases in Table V.) in Tables IV. and V. should be placed immediately below, but separately from, those enumerated under the heading Diarrhœa as defined by enumeration above. This is particularly important for deaths under one year of age, as many of the deaths in infancy returned as due to Enteritis are really caused by Epidemic Diarrhœa. In the course of years, by the adoption of this recommendation, it will be practicable to ascertain the probable amount of transfer between these different headings.

- (*f*) Under the headings of "Cancer" and "Puerperal fever" should be included all registered deaths from causes comprised within these general terms. Thus: Under "Cancer" should be included deaths from Cancer, Carcinoma, Malignant disease, Scirrhous, Epithelioma, Sarcoma, Villous tumour, and Papilloma of bladder, Rodent ulcer. Under "Puerperal Fever" are to be included deaths from Pyæmia, Septicæmia, Sapræmia, Pelvic peritonitis, Peri- and Endo-Metritis occurring in the Puerperium.
- (*g*) Under "Congenital Defects" in Table V. are to be included deaths from Atelectasis, Icterus neonatorum, Navel hæmorrhage, Malformations and Congenital hydrocephalus.
- (*h*) Under "Tuberculous Meningitis" are to be included deaths from Acute hydrocephalus.
- (*i*) Under "Other Tuberculous Diseases" are to be included deaths from Tuberculosis, Tuberculosis of bones, joints, and other organs, Lupus and Scrofula.

- (j) All deaths certified by registered Medical Practitioners and all Inquest cases are to be classed as "Certified"; all other deaths are to be regarded as "Uncertified."
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In recording the facts under the various headings of Tables I., II., III., IV., and V., attention has been given to the notes on the Tables.

JAMES MAIR,

Medical Officer of Health.

22nd April, 1911

1875
The following is a list of the names of the persons who have been admitted to the membership of the Society since the last meeting.

In accordance with the provisions of the Constitution, the names of the persons who have been admitted to the membership of the Society since the last meeting are as follows: