

[Report 1914] / Medical Officer of Health, Leeds City.

Contributors

Leeds (England). City Council.

Publication/Creation

1914

Persistent URL

<https://wellcomecollection.org/works/sqjf3ske>

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>



CITY OF LEEDS.

REPORT

ON THE

Health and Sanitary Conditions

OF THE CITY

FOR THE YEAR 1914.

BY

WILLIAM ANGUS, M.D., D.P.H.,

Acting Medical Officer of Health.

TABLE OF CONTENTS.

	Page
PART I.—GENERAL STATISTICS :—	
Population, industries, etc	4
Marriages	7
Births	7
Deaths	8
PART II.—INFECTIOUS AND OTHER DISEASES :—	
Smallpox	13
Scarlet Fever	15
Diphtheria	16
Enteric Fever	17
Erysipelas	18
Puerperal Fever	19
C. S. Meningitis, Polio-myelitis and Ophthalmia	19
Measles	20
Whooping Cough	21
Diarrhœa	22
Bronchitis and Pneumonia	24
Cancer	26
Comparison with other towns	27
PART III.—TUBERCULOSIS :—	
Mortality Statistics	28
Notifications	33
Treatment	34
PART IV.—INFANT MORTALITY :—	
Statistics	37
PART V.—MATERNITY AND CHILD WELFARE :—	
Supervision of midwives	42
Infant welfare	43
Leeds Babies' Welcome Association	43
PART VI.—SANITARY ADMINISTRATION :—	
Sanitary Work	46
Women Inspectors and Outworkers	48
Factories and workshops	50
Lodging-houses, etc.	52
Smoke inspection	54
Supervision of food supply	55
Housing	62
Overcrowding	67
Water supply	69
Sewage disposal	69
Closet accommodation	70
Cleansing and scavenging	70
Ambulance work and disinfection	71
Hospital treatment	72
Laboratory work	73
Influence of the War	73
LOCAL GOVERNMENT BOARD TABLES	75 .

CITY OF LEEDS.

*To the Chairman and Members of the
Sanitary Committee.*

GENTLEMEN,

I have the honour to present to you my Report on the health and sanitary administration of the City during the year 1914.

In July, 1914, the Medical Officer of Health, Dr. J. Spottiswoode Cameron, was taken ill, and the charge of the Sanitary Department devolved on your Assistant Medical Officer. This report therefore deals with work for which Dr. Cameron was responsible, as well as that done after he had ceased to perform his duties.

The health of the City during 1914 was good on the whole, and the death rate shewed a decrease as compared with the previous year. There were two small outbreaks of Smallpox during 1914, and an undue prevalence of Measles towards the end of the year.

I would particularly direct your attention to the sections of this report dealing with Tuberculosis, and with Infant Mortality and Child Welfare. These departments of Public Health work call for increasing attention so that the schemes already initiated may be vigorously carried on, and amplified where necessary.

It is a pleasure to express my satisfaction with the way the members of the staff have performed their duties, and my thanks for the unfailing support they have given me in carrying on the work of the Department.

I am,

Mr. Chairman and Gentlemen,

Your obedient servant,

WILLIAM ANGUS.

SANITARY OFFICES,

MARKET BUILDINGS, LEEDS,

August, 1915.

PART I.

GENERAL STATISTICS.

POPULATION.

The population of the City of Leeds for 1914 as estimated by the Registrar General's method was 459,260.

It is desirable to put on record in this report certain facts regarding the population obtained from the volumes published relating to the 1911 census. Some of these facts have now an added local interest from the light they throw on the number available in the City for military service, and on how far that number is influenced by the proportion employed in industries, such as tailoring and engineering, which have been busily engaged in war work.

The first table shows the numbers living of each sex at various ages at the 1911 census compared with the corresponding groups at the 1901 census, and the percentage increase or decrease.

While the total population increased by 3.9 per cent. it is important to observe that all the increase took place in the older age groups, and that there was an actual decrease in the population up to the age of 30. The decrease is seen to be most marked at the earlier ages, and then almost to disappear about the age of 15. That decrease is of course due to the steady fall in the birth-rate which will be noted in a later table. The decrease is again marked at the 20-25 age group and this is probably due to emigration. While the decrease at 20-25 is 7.8 per cent. taking males and females together it is 11.3 per cent. for males alone, but only 4.6 per cent. for females alone, probably owing to the greater tendency of males to emigrate.

The great increase of the number living aged 65 and over is in part a tribute to the influence of sanitation and improved economic position in lengthening life and may also be partly due to immigration into the City from outside of middle-aged people.

The age for enlistment has varied, but a close approximation of the numbers in Leeds suitable as regards age may be got by taking the males living between the ages of 20 and 40. In 1911 these numbered 69,377, but if one deducts 20 per cent. for the number medically unfit there would remain about 56,000 available. It was estimated at the middle of July that about 36,000 men from Leeds

were serving in His Majesty's Forces, and admitting the fact that certain of these are under 20 years of age or over 40 it would appear that about 60 per cent. of those available are under arms.

TABLE OF POPULATION.

Census Year.	<i>Under 1 year.</i>		<i>1 to 2 years.</i>		<i>2 to 5 years.</i>		<i>5 to 15 years.</i>	
	M.	F.	M.	F.	M.	F.	M.	F.
1901	5,586	5,650	4,946	4,925	14,161	14,606	43,176	44,766
1911	4,618	4,568	4,292	4,352	13,569	13,762	42,983	44,343
Percentage increase or decrease	18·2% decrease		12·4% decrease		5·0% decrease		0·7% decrease	

Census Year.	<i>15 to 20 years.</i>		<i>20 to 25 years.</i>		<i>25 to 30 years.</i>		<i>30 to 35 years.</i>	
	M.	F.	M.	F.	M.	F.	M.	F.
1901	20,316	22,274	20,404	23,341	18,941	21,426	16,415	17,987
1911	19,873	22,235	18,095	22,256	17,612	20,815	17,282	19,548
Percentage increase or decrease	1·1% decrease		7·8% decrease		4·8% decrease		7·1% increase	

Census Year.	<i>35 to 40 years.</i>		<i>40 to 45 years.</i>		<i>45 to 65 years.</i>		<i>Over 65 years.</i>	
	M.	F.	M.	F.	M.	F.	M.	F.
1901	14,405	15,269	12,001	12,653	29,966	31,964	5,748	8,042
1911	16,388	17,805	13,972	15,228	35,161	38,158	7,902	10,733
Percentage increase or decrease.	15·2% increase		18·4% increase		18·4% increase		35·1% increase	

Census Year.	<i>Total all ages.</i>		<i>Grand Total.</i>	
	M.	F.		
1901	206,065	222,903		428,968
1911	211,747	233,803		445,550
Percentage increase or decrease.	3·9% increase			

Occupations.—The principal industries in Leeds are shown in the next table. Of a total of 167,560 males over 10 years of age, 22,128 or 13 per cent. are unoccupied or retired. Of the remaining 145,122, the numbers engaged in the principal trades are as follows :

General Engineering and Machine Making	21,205	} 28,318
Iron, Steel, etc., Manufacture	7,113	
Tailors	7,625	
On Railways	5,166	
Textile Manufactures	4,879	
Mine and Quarry Workers	4,433	
Boot, Shoe. etc., Makers	4,297	
Carters, Carmen, etc.	4,283	
Printing, etc.	3,917	

The variety of industries in Leeds is an asset of great value, not without its influence on the health of the City, for depression and distress are practically never universal under these circumstances.

Of 188,792 females over 10 years, 71,375 are engaged in occupations, the principal being as follows :—

	Total.	Unmarried.	Married.	Widowed.
Tailoring	15,917	12,476	2,800	641
Textile Manufactures ..	10,374	7,758	2,138	478
Domestic Indoor service	8,799	7,812	422	565
Dressmakers	5,361	4,671	481	209

Out of a total of 85,206 married women, 11,112 or 13 per cent. are occupied in work other than their own domestic housekeeping.

Nationality.—Some of the figures from the census returns on this subject are also of interest. I think the real number of inhabitants of Leeds of foreign birth will be found much lower than most people imagine. Excluding British subjects born abroad the total is 7,591. By far the greatest number have come from Russia and Russian Poland—6,315—and next in order comes Germany with 377 and Austria-Hungary with 225.

MARRIAGES.

Hitherto no record has been made of the marriage rate in Leeds. It is impossible to get accurately the number of marriages taking place in the City as marriages are enumerated only for registration districts, and the City is composed of the whole of the Leeds registration district and parts of the Bramley, Hunslet, and Holbeck registration districts. From figures supplied by the Registrar-General I have calculated approximately the number of persons married per 1,000 of the population for the last ten years as follows:—

MARRIAGE RATE.				
Year.		Leeds.		England & Wales.
1905	..	15·3	..	15·3
1906	..	17·0	..	15·7
1907	..	17·4	..	15·9
1908	..	16·2	..	15·1
1909	..	15·1	..	14·7
1910	..	15·6	..	15·0
1911	..	15·7	..	15·2
1912	..	16·0	..	15·5
1913	..	16·4	..	15·5
1914	..	16·6	..	15·9

BIRTHS.

The number of births registered during the year was 10,652, equal to a rate of 23·3 per 1,000 living. The next table shows the birth-rate of Leeds compared with the birth-rate for England and Wales in five-yearly periods for 1890-1909 and yearly since 1909, and the figures for the last three years would suggest that the steady decline in the rate is arrested, at least for the time being.

BIRTH-RATE.				
Year.		Leeds.		England & Wales.
1890-1894	..	33·2	..	30·5
1895-1899	..	31·5	..	29·6
1900-1904	..	30·1	..	28·4
1905-1909	..	26·9	..	26·7
1910	..	24·5	..	25·1
1911	..	23·8	..	24·4
1912	..	23·2	..	23·8
1913	..	23·6	..	23·9
1914	..	23·3	..	23·8

DEATHS.

The deaths registered in the City numbered 6,952. Subtracting from this number 313 deaths of persons not belonging to Leeds, and adding 246 of persons belonging to Leeds who died away leaves the nett number 6,885, equal to a death-rate of 15.0 per thousand living. This is the lowest death-rate ever recorded for the City, with the exception of that for the year 1912, when it was 14.3. It will be remembered that in the year 1912 there was an exceptionally cold and wet summer with the result that the infant mortality was very low, and this was the main reason for the low death-rate of 1912.

Looking back one finds that the death-rate of Leeds during the ten years preceding the passing of the Public Health Act in 1875 was 28.4 per thousand living. The reduction of the death-rate which has taken place since then represents for the year 1914 an actual saving of 6,150 lives. The table below shows the death-rate of Leeds since 1901 alongside that of England and Wales.

DEATH-RATE PER 1,000 POPULATION.

Year.	Leeds.	England & Wales.
1901 ..	19.2	16.9
1902 ..	17.6	16.3
1903 ..	16.8	15.5
1904 ..	18.6	16.3
1905 ..	16.2	15.3
1906 ..	16.9	15.5
1907 ..	16.4	15.1
1908 ..	16.6	14.8
1909 ..	15.4	14.6
1910 ..	15.2	13.5
1911 ..	16.5	14.6
1912 ..	14.3	13.3
1913 ..	15.6	13.7
1914 ..	15.0	14.0

Causes of Death.—The next table shows the 6,885 deaths in Leeds classified according to the short list of causes of death and the increase or decrease as compared with the numbers for 1913.

The most notable increase is in measles, and to a smaller extent in whooping cough. There is a marked decrease in bronchitis and also in diarrhoea and enteritis, the latter being particularly satisfactory.

Death Rate.	DISEASES.	No. of Deaths in 1914.	Increase or Decrease Compared with 1913.
0.05	Enteric Fever	23	+ 4
..	Smallpox	..	..
0.48	Measles	218	+110
0.07	Scarlet Fever	30	+ 15
0.31	Whooping Cough	141	+ 47
0.13	Diphtheria and Croup	59	- 30
0.07	Influenza	30	- 23
0.03	Erysipelas	15	+ 2
1.24	Phthisis (pulmonary tuberculosis)	569	- 9
0.14	Tub. Meng. and Acute Hydroceph.	63	- 13
0.33	Other Tuberculous Diseases	150	- 14
1.00	Cancer, Malignant Disease	457	- 68
0.06	Rheumatic Fever	26	- 7
0.23	Meningitis	107	+ 6
1.28	Heart Disease	586	- 60
1.18	Bronchitis	539	-108
1.33	Pneumonia (all forms)	610	+ 25
0.19	Other diseases of respiratory organs	89	- 15
0.71	Diarrhoea and Enteritis	325	- 75
0.05	Appendicitis and Typhlitis	25	+ 13
0.09	Cirrhosis of Liver	43	- 5
0.05	Alcoholism	23	+ 5
0.47	Nephritis and Bright's Disease	214	- 1
0.06	Puerperal Fever	27	+ 14
0.08	Other accidents and diseases of Pregnancy and Parturition	36	- 12
0.98	Congenital Debility and Malformation including Premature Birth	449	- 33
0.47	Violent deaths, excluding Suicide	216	+ 5
0.10	Suicides	47	- 6
3.86	Other Defined Diseases, Diseases ill-defined or unknown	1,768	-119
15.04		6,885	-352

Deaths in Wards.—It is impossible to look at the next table without noticing the great difference between certain wards in their rate of mortality. Putting aside the new ward which is largely of a semi-rural character, one finds Bramley and Headingley with a death-rate of under 12 and the South ward and New Wortley with a death-rate over 20.

MORTALITY RATE IN WARDS.

MUNICIPAL WARD.	Population Estimated to Middle of 1914.	Deaths.	Death-rate.
Central	12,244	216	17.70
North	43,083	552	12.86
North-East	38,728	637	16.50
New Ward*	7,941	69	8.72
East.. ..	36,929	666	18.10
South	11,698	305	26.16
East Hunslet	33,601	596	17.80
West Hunslet	38,027	480	12.67
Holbeck	30,308	491	16.26
Mill Hill	5,202	80	15.43
West	19,383	383	19.83
North-West	29,989	441	14.76
Brunswick	23,334	289	12.43
New Wortley	16,011	337	21.12
Armley and Wortley	37,828	478	12.68
Bramley	24,733	290	11.77
Headingley	50,221	568	11.35
No Home	..	7	..
TOTAL	459,260	6,885	15.04

* Roundhay, Seacroft, Shadwell and Crossgates.

In order to determine if possible wherein the difference between high and low death-rates arises, the causes of death in the South East and Hunslet registration districts (which include most of the Central, East, South, East Hunslet and West Hunslet Wards) were analysed and compared with the deaths in the Kirkstall and North Leeds Registration districts, an area with a similar total population. The result is shown in the table which follows.

South East and Hunslet Registra- tion Districts. Population 123,125.	DEATH-RATE FROM.	Kirkstall and North Registration Districts. Population 116,638.
17.70	All causes	12.12
2.24	Tuberculosis	1.15
0.72	Measles	0.37
0.43	Whooping Cough	0.21
0.90	Diarrhœa and Enteritis	0.40
1.89	Pneumonia	1.02
0.97	Cancer	0.90
1.44	Heart Disease	1.07

It will be seen that the general death-rate in the one group of districts was 17.7 as compared with 12.1 for the other group of districts. On looking down the table it becomes obvious that the excessive death-rate in the one district as compared with the other is due largely to preventable causes. Taking a series of diseases which are known to be due to infection and environment such as tuberculosis, measles, whooping-cough, diarrhœa, and pneumonia, we find that the death-rate in each case for the South-East and Hunslet district is practically double what it is in the Kirkstall and North districts. If we take a disease such as cancer, concerning the cause of which little is known and in which the influence of environment appears to be *nil*, the death-rate is precisely the same in the two districts. Similarly with heart disease where infection and environment play a much smaller part, the excess in one district as compared with the other is comparatively small. It is obvious therefore, that the death-rate in districts in which it is excessive can be lowered, and that in order to do so our work must be directed to the prevention of infection and the improvement of environment.

Institution Deaths.—Before leaving the subject of the general death-rate I think it well to record for the first time statistics showing the increase in institutional treatment in Leeds during the last twenty-five years. This can be shown by the percentage of all deaths which occur in institutions. The steady rise in the figure from about 10 per cent. to about 25 per cent. since 1890 indicates a very beneficent increase in the amount of institutional accommodation available for the sick of all classes.

It is almost impossible to overestimate what a boon this is when cases of serious illness occur in small houses where there is no possibility of proper nursing.

Year.	Total Deaths in City.	Deaths in Institutions.	Percentage in Institutions.
1890	8,370	819	9·8
1891	8,429	869	10·3
1892	7,403	789	10·7
1893	8,512	874	10·3
1894	6,935	772	11·1
1895	8,101	882	10·9
1896	7,682	908	11·8
1897	8,148	881	10·8
1898	7,996	940	11·8
1899	8,105	1,005	12·4
1900	8,619	1,084	12·6
1901	8,283	1,176	14·2
1902	7,814	1,154	14·8
1903	7,334	1,094	14·9
1904	8,096	1,185	14·6
1905	7,124	1,225	17·2
1906	7,405	1,271	17·2
1907	7,227	1,301	18·0
1908	7,505	1,371	18·3
1909	6,854	1,403	20·5
1910	6,790	1,349	19·9
1911	7,394	1,620	21·9
1912	6,403	1,610	25·1
1913	7,289	1,715	23·5
1914	6,952	1,705	24·5

The above deaths throughout this table include those of Leeds people dying in Seacroft Hospital and the Hunslet Workhouse, although the former was outside the City boundary till 1912, and the latter is still outside.

PART II.

**INFECTIOUS AND OTHER
DISEASES.**

Smallpox.—During the year 1914, two small outbreaks of smallpox occurred in the City.

The first case was that of young man, aged nineteen, employed at steel works and residing in the Hunslet district. The case was notified on May 29th and removed the same day to hospital. The patient's history was that he felt out of sorts on May 24th (Sunday) but he went to work on Monday the 25th. On that day he had severe headache and some backache, but no shivering or pains in the limbs. On the 27th (Wednesday) a papular rash appeared on the arms and legs, and on the 28th a similar rash appeared on the face and the patient complained of sore throat. When seen on the 29th there was a well-marked smallpox eruption with typical distribution. The other members of the family, and also a young girl with whom the patient had been keeping company, were removed to the quarantine cottages. The only other case which arose was in one of these contacts, a brother who had been sleeping with the patient.

This being the first case of smallpox heard of in Leeds for eight years, enquiry was made first of all as to whether the patient had been out of Leeds, and secondly as to whether there had been any visitors from outside, Batley and Dewsbury being specially mentioned, as there had been cases of smallpox recently in these towns, but no definite information pointing to the source of disease was obtained.

The patient had never been vaccinated, while his brother had been vaccinated in infancy, but only showed one mark. This brother had slept with the patient until the day before removal to hospital, and on being isolated in the quarantine cottages refused re-vaccination and contracted smallpox. The father had been vaccinated and re-vaccinated and had marks on both arms, the mother had no marks and was vaccinated, and the younger children had both been vaccinated in infancy.

All other contacts were kept under observation, and the places where the different members of the patient's family were employed, were visited daily.

It was found that the patient's sweetheart was employed in a rag warehouse, but the rags were entirely of English origin, being obtained mostly from tailors in Leeds.

Over 1,200 house to house visits were made in the neighbourhood, and every effort was made to trace the source of infection in this case but without result.

The second outbreak was heard of on June 27th. A message was received from a practitioner in the Armley district, that he wished the Medical Officer of Health to see a case of chicken-pox as there was some suspicion of smallpox. The case was a difficult one to diagnose, but it was finally decided that the patient should be removed to hospital, and her husband and child to the isolation cottages at Seacroft.

The patient was a woman of 38, who said she had suffered from influenza about June 9th, feeling ill for about a week, but having no doctor in attendance. On June 22nd she had headache, pains in the limbs, no backache, no vomiting. On June 25th a rash appeared, first of fine papules behind the knees and on June 26th on the face. The patient had been vaccinated in infancy, and had four good marks, but had not been re-vaccinated. There was no history of her having been out of Leeds within the previous month, nor of having had any visitors. The family was a very clean and respectable one, and they were in the habit of going by tram into Leeds every Saturday evening to do shopping in the Market. The husband was employed at a foundry, he had three vaccination marks from infancy but had not been re-vaccinated. The child, aged 10, attended an elementary school in the neighbourhood where on investigation it was found that there had recently been several cases of chicken-pox. These were examined and the diagnosis confirmed.

The Medical Superintendent of the isolation hospital verified the case as being one of smallpox, and subsequently the patient's husband was re-vaccinated at the isolation cottages with a successful result, but he developed a mild attack of varioloid on July 8th. The daughter was successfully vaccinated.

A third case of smallpox was heard of in the same street on July 15th. This was a young woman who was a direct contact with the first case, although the fact that she had visited the patient on June 27th was not admitted at the time the investigations were made relating to the first case. On July 11th this second patient had severe headache, vomiting, sore throat, backache, and pains in the limbs. On July 12th a preliminary rash appeared on the face and body which was thought to be measles. This rash disappeared on the 13th but on the 14th spots showed on the face, hands and legs. She was removed to hospital on July 15th. This patient had been vaccinated in infancy but not re-vaccinated. The immediate contacts were removed to the isolation cottages.

The usual extensive house to house visitation was carried out in connection with this outbreak but no trace of infection could be discovered, and no further cases arose.

Scarlet Fever.—The number of cases of scarlet fever notified during the year was 1,346, or about the same as last year, although unfortunately twice as many deaths occurred. There was no specially heavy incidence of the disease in any ward or district.

SCARLET FEVER.

Year.	Cases.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1910	1,749	41	0·09	0·06
1911	1,633	45	0·10	0·05
1912	1,227	40	0·09	0·05
1913*	1,311	15	0·03	0·06
1914	1,346	30	0·07	0·08

*53 week year, the others 52.

The attack rate for the City was 2·96 cases per 1,000 living, as compared with 4·47 for England and Wales.

During the year 1,207 cases were removed to hospital or 89·7 per cent. of those notified.

Diphtheria.—The number of cases of diphtheria (including membranous croup) for the year is shown in the table along with the corresponding figures for the previous four years. The death-rate in Leeds from diphtheria, which during the last few years has been higher than the average for the country, was for 1914 lower than the average for England and Wales.

DIPHTHERIA AND CROUP.

Year.	Cases.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1910	948	74	0·17	0·12
1911	1,165	154	0·35	0·13
1912	705	95	0·21	0·11
1913*	880	89	0·20	0·12
1914	700	59	0·13	0·15

*53 week year, the others 52.

AGE INCIDENCE AND FATALITY.—DIPHTHERIA.

1914	-1	1-2	2-3	3-5	5-10	10-15	15-25	25+
No. of Cases ..	6	26	27	125	224	105	116	71
No. of Deaths	6	12	7	16	15	1	1	1
Mortality per cent. ..	100	46·2	25·9	12·8	6·7	1·0	0·9	1·4

Diphtheria is a disease in which the eventual result is very markedly influenced by the age of the patient. This is shown in the above table in which the cases and deaths during the year 1914 are divided up according to age groups. Whereas every case under one year proved fatal, and nearly 50 per cent. of those attacked between the ages of one and two died, the mortality steadily declined with the increasing age of the patient and only 1 per cent. of those

attacked over the age of ten died. Of the 700 cases of diphtheria 559 (or 80 per cent.) were removed to hospital.

Enteric Fever.—The table shows that there were during the year 84 cases of enteric fever and 23 deaths. The number of cases for each of the last ten years would suggest that with the exception of a very cold year such as 1912 the incidence of enteric fever has not decreased to the same extent during the last three or four years as it did during the previous decade.

ENTERIC FEVER.

Year.	Cases.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1905	292	52	0·12	0·09
1906	303	49	0·11	0·09
1907	159	26	0·06	0·07
1908*	179	25	0·06	0·07
1909	217	40	0·09	0·06
1910	104	21	0·05	0·05
1911	119	22	0·05	0·07
1912	65	18	0·04	0·04
1913*	85	19	0·04	0·04
1914	84	23	0·05	0·05

*53 week years, the others 52.

CASES OF ENTERIC FEVER MONTH BY MONTH.

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
7	5	9	5	7	3	2	6	4	11	15	10

The occurrence of a case of enteric fever means that direct contamination between the excreta of an infective individual and the food of the person attacked has taken place. In no other way is infection possible, and whether this contamination has taken place through shell-fish from sewage polluted water, contamination of food by flies, or want of cleanliness in the preparation of food, it should be possible to determine in most cases. A searching investigation to this end should be made into every case of enteric fever in the City by one of the medical staff of the Health department, and it is to be hoped that such an arrangement will be possible when times are again normal.

The influence of privies is not now of great importance as there are so few left in the City. Four of the cases in 1914 used privies. In about 10 per cent. of the cases the drains inside the house were defective.

The small table on p. 17 shows how the cases occurred month by month throughout the year with a typical rise in the incidence during the last quarter.

There was one small outbreak of interest, consisting of 4 cases all employed at the same place, a woollen mill on the outskirts of the City. All the cases arose within a period of two weeks, and the one feature common to all the cases was that they had been in the habit of drinking some so-called spring water which discharged into a trough in the yard. The original source of this water could not be determined, but within the part of its course which was traced there was obvious possibility of pollution. A specimen of the water which was examined yielded 36 B. Coli per cubic centimetre, indicating a high degree of contamination. Arrangements were made that the water should be diverted underground into an iron pipe, and no other case of enteric fever arose at the mill.

Erysipelas.—During the year 509 cases of erysipelas were notified but only 15 deaths were certified as due to this disease. A large variety of conditions is covered by the term erysipelas, and a great number of these conditions are very trivial and of no importance from the Public Health point of view. I think that compulsory notification of erysipelas might well be discontinued without any evil consequences.

Puerperal Fever.—During the year 46 cases of Puerperal Fever were heard of, equivalent to a rate of $\cdot 1$ cases per 1,000 living. This is a higher incidence than the average for England and Wales. There were 27 deaths from Puerperal Fever, and 15 of those deaths took place in Public Institutions.

By arrangement with general practitioners cases of high temperature during the puerperium are also reported to the Medical Officer of Health and 11 such notifications were received during the year.

Cerebro-Spinal Meningitis.—There were 2 cases of this disease notified in Leeds during 1914. One, a girl of 15, was a doubtful case, while the other, a little girl of 3 years was much more typical clinically. Both died, and no bacteriological examination was possible. In two other instances deaths were registered as due to this disease—1 boy and 1 girl—but one of these was bacteriologically examined with negative result.

Acute Anterior Polio-Myelitis.—One case was notified—a little girl aged 18 months. The right leg was the only part affected and she made a complete recovery.

Ophthalmia Neonatorum.—Of this disease 85 notifications were received, and the following table shows the day of onset in 81 cases where this information was obtained.

DAY OF ONSET FROM BIRTH.

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	10th-15th	15th-20th	20th-25th
No. of Cases	9	6	8	9	7	7	10	1	8	6	6	3	1

The final result of these cases was as follows:—

Number of cases notified	85
Recovery apparently perfect	61
Sight of one or both eyes destroyed ..	0
Lost trace of while still affected ..	3
Not visited (Institution cases)	6
Died	15
(Purulent ophthalmia registered as one of the causes of death in 3 cases).	

Measles.—The year 1914 was a bad one for measles, and the death-rate from this cause was higher than it has been since 1906. Very little progress has been made in dealing with measles from the Public Health standpoint, and the difficulties are well known. Some suggestions for dealing with measles and whooping cough by making the first case in each house notifiable have recently been mentioned to your Committee, and I think the matter is worthy of consideration when the Sanitary staff is again at its usual strength and the hospital resources are less overtaxed.

MEASLES.

Year.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1905	109	0·25	0·32
1906	275	0·63	0·27
1907	104	0·24	0·36
1908*	181	0·40	0·22
1909	78	0·18	0·35
1910	160	0·36	0·23
1911	78	0·18	0·36
1912	159	0·36	0·35
1913*	108	0·23	0·28
1914	218	0·48	0·24

*53 week years, the others 52.

That the mortality from measles is one that can be reduced is suggested by the fact that the death-rate from this cause varied from *nil* in the New Ward to 1·1 in the East and South Wards. If the attack can be postponed till a later age period, that alone would effect a considerable saving of lives, for the disease is much more fatal in the first two years of life.

AGES AT DEATH FROM MEASLES.

1914.	0-1	1-2	2-3	3-4	4-5	5-10	10-15	Total.
No. of Deaths	34	97	31	22	18	16	—	218

The importance of preventing infection with measles in the first years of life is suggested by the above table. Although no figures are available shewing the number of cases of the disease, yet it is significant that of a total of 218 deaths, 131 or 60 per cent. were of infants under the age of two years.

Whooping Cough.—Very much the same applies to whooping cough as has just been said of measles. It is a disease in which the infection is spread before the nature of the illness is recognised just as in measles, and for that reason there will always be difficulties in preventing its spread. But there is no reason why many lives should not be saved by proper care and nursing during the attack. This would prevent dangerous complications following, and it is these which cause death in Whooping Cough.

WHOOPIING COUGH.

Year.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1905	121	0·28	0·25
1906	146	0·33	0·23
1907	161	0·37	0·29
1908*	140	0·31	0·27
1909	83	0·19	0·20
1910	150	0·34	0·24
1911	147	0·33	0·21
1912	54	0·12	0·23
1913*	94	0·20	0·14
1914	141	0·31	0·21

*53 week years, the others 52.

The undue fatality of whooping cough among the younger children is shewn in the table below.

AGES AT DEATH IN WHOOPING COUGH.

1914.	-1	1-2	2-3	3-4	4-5	5-10	Total.
No. of deaths	57	44	19	10	5	6	141

Diarrhœa and Enteritis.—The next table shows the deaths from diarrhœa and enteritis under the age of two years, and the death-rate per thousand of the population. A comparison of this table with preceding similar tables for measles, whooping cough and other infectious diseases shows that diarrhœa, although not commonly regarded by the public as a disease of an infectious type or one of much consequence, is nevertheless responsible for more deaths than any of the other more familiar infectious diseases. The fluctuation in the number from year to year is very noticeable, and as is now well known, the cause for this is said to be the climatic conditions.

DIARRHŒA AND ENTERITIS DEATHS UNDER TWO YEARS FROM 1905 TO 1914 WITH RATES PER 1,000 POPULATION.

Year.	Deaths.	Rate per 1,000 Population.
1905	401	0.92
1906	508	1.16
1907	257	0.59
1908*	405	0.90
1909	166	0.38
1910	252	0.57
1911	578	1.30
1912	114	0.25
1913*	339	0.73
1914	287	0.63

*53 week years, the others 52.

The table which follows shows the deaths in each month for the year 1914 alongside the mean temperature and the rainfall for each month and it will be seen how close is the relation between the two. A period of hot weather is inevitably followed by a great increase in the number of cases of diarrhoea and enteritis in young children.

DEATHS, TEMPERATURE AND RAINFALL IN EACH MONTH OF YEAR.

1914.	Jan.	Feb.	Mar.	April.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Deaths	5	7	9	1	8	10	36	70	107	17	10	7	287
Temperature °F.	40·67	45·85	46·03	54·28	56·52	64·92	65·37	66·06	59·72	52·46	45·88	42·87	53·41
Rainfall (inches)	1·17	1·37	2·28	0·83	0·84	3·32	2·13	1·75	1·13	1·99	2·88	5·70	25·39

Of the 287 deaths from diarrhoea and enteritis under two years, 23 were of children aged less than one month, 60 aged one to three months, 74 from three to six months, 82 from six to twelve months and 46 over one year. At present we have no information about cases of diarrhoea except that obtained from the local registrar's returns after death has taken place, and that obtained in the course of infant visiting. Diarrhoea and enteritis under two years has been made a notifiable disease in some towns, and I think that such a step might with advantage be taken in Leeds as part of the development of infant welfare work in the City. Before doing so it should be realized that notification of itself is of little value, unless the Committee is prepared to undertake to some extent the treatment of cases.

Children entirely breast-fed rarely die from diarrhoea, and the most important preventive measure is therefore the natural feeding of infants. This alone would probably prevent about 70 per cent. of the deaths from diarrhoea. For artificially-fed children a clean and pure milk supply (which unfortunately is difficult to obtain), scrupulous care in boiling the milk, and in the cleanliness of all feeding utensils, are the essentials in prevention.

In dealing with surroundings the most important measures to prevent diarrhoea are the substitution of covered metal bins for large open ashpits, the wholesale washing of streets and courts by water in periods of hot dry weather, and the provision of clean paved yards around dwelling-houses.

BRONCHITIS.

Year.	Deaths.	Rate per 1,000 Population.
1905	602	1.39
1906	574	1.32
1907	684	1.56
1908*	636	1.42
1909	655	1.48
1910	541	1.22
1911	559	1.26
1912	576	1.29
1913*	647	1.39
1914	539	1.18

*53 week years, the others 52.

AGES AT DEATH FROM BRONCHITIS.

1914	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
No. of Deaths	107	20	13	5	2	21	148	223	539

Bronchitis and Pneumonia.—Bronchitis is one of the unsatisfactory terms used commonly in death certification. In a large number of instances it is not really the primary cause of death but a prominent and noticeable complication to which eventually death is attributed. For instance, in recording an epidemic of measles or whooping cough it is often noticed that the number of deaths from bronchitis and broncho-pneumonia increases, and this increase is due to cases where the bronchitis or broncho-pneumonia is secondary to an attack of whooping cough or measles which

has either passed unnoticed, or has not been pointed out to the medical practitioner who has been called in probably only a day or two before death.

The death-rate from bronchitis shows a decided fall in the last five years as compared with the previous period of five years, but as I have already said, so many diseases are comprised in the term bronchitis that the death-rate from bronchitis is likely to fall at practically the same rate as the general death-rate.

It is important to notice that 107 deaths of children under twelve months were attributed to bronchitis, and it is no exaggeration to say that deaths from bronchitis at this age period are almost entirely preventable.

The same remarks apply to pneumonia as it also is a term used in death certification which covers a variety of diseases and is often in reality a sequel or complication of some other more definite or long standing organic disease.

PNEUMONIA.

Year.	Deaths.	Rate per 1,000 Population.
1905	639	1·47
1906	545	1·25
1907	622	1·42
1908*	682	1·52
1909	618	1·40
1910	608	1·37
1911	612	1·38
1912	479	1·07
1913*	585	1·26
1914	610	1·33

*53 week years, the others 52.

AGES AT DEATH FROM PNEUMONIA.

1914.	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
No. of Deaths	116	115	66	31	25	83	109	65	610

Cancer.—From the table it will be seen how little variation there has been in the death-rate from cancer during the last ten years.

CANCER.

Year.	Deaths.	Rate per 1,000 Population.
1905	444	1.02
1906	432	0.99
1907	415	0.95
1908*	463	1.03
1909	449	1.02
1910	397	0.90
1911	423	0.95
1912	430	0.96
1913*	525	1.13
1914	457	1.00

*53 week years, the others 52.

COMPARATIVE VITAL STATISTICS OF TWELVE LARGE TOWNS.

	Population.	Birth-rate. Births per 1,000 living.	Death rate. Deaths per 1,000 living.	Infant mortality. Deaths under 1 per 1,000 births.	Deaths per 100,000 living.					
					Enteric Fever.	Measles.	Scarlet Fever.	Whoop- ing Cough.	Diph- theria.	
London	4,518,021	24·3	14·4	104	3	31	7	20	16	
Glasgow	1,055,930	28·0	16·6	133	8	46	21	50	14	
Birmingham	882,534	26·4	14·8	122	2	35	17	35	30	
Liverpool	767,992	30·0	19·5	139	5	67	16	32	14	
Manchester	739,136	25·3	16·8	129	5	40	22	38	15	
Sheffield	476,971	27·3	16·3	132	6	76	19	49	14	
Leeds	459,260	23·3	15·0	123	5	48	7	31	13	
Edinburgh	325,780	20·2	15·4	110	3	33	13	3	29	
Hull	291,118	27·1	15·0	121	14	32	2	16	16	
Bradford	290,642	19·6	15·8	121	8	39	2	32	12	
Newcastle-on-Tyne	271,523	27·8	17·2	137	8	78	16	28	10	
Nottingham	266,918	23·2	15·4	146	2	54	4	24	13	

The table on the preceding page shows the position of Leeds among twelve towns with a population of over 250,000. The towns are arranged in order of population. It will be seen that only London and Birmingham have a better figure for the general death-rate, while that of Hull is the same. London has had the lowest mortality returns for some time, while Birmingham by the recent absorption into its area of large residential suburbs of low mortality has also improved its position. The position of Leeds among the provincial cities must be considered a good one.

The infantile mortality rate is not so satisfactory. Two cities—Edinburgh and Bradford—which have a higher general death-rate have a lower infantile death-rate than Leeds, while London, Birmingham and Hull are also in a better position.

The mortality figures from the commoner infectious diseases show that in Leeds in 1914 there was no undue fatality from any of these diseases as compared with other large towns.

PART III.

TUBERCULOSIS.

Mortality Statistics.—The deaths from all forms of tuberculosis during 1914 numbered 782, equal to a rate of 1·71 per thousand living. This figure represents a nett rate, that is to say, allowance has been made for the number of Leeds people dying outside the City and those dying in the City who are not residents. The rate 1·71 is lower than the rate for any previous year except 1910 when it was 1·70. The rate for the five years 1905-1909 was 1·97 and for 1910-1914, 1·75.

Taking pulmonary tuberculosis separately, the following table shows the death-rate from this cause among males and females during the last ten years. Here again the figures for 1914 are nett whilst those for previous years are gross, but this does not make much difference to the actual rates.

PULMONARY TUBERCULOSIS.

YEAR.	MALES.		FEMALES.		TOTAL.	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.
1905	343	1.65	215	0.95	558	1.28
1906	347	1.67	223	0.98	570	1.31
1907	371	1.78	234	1.02	605	1.38
1908*	368	1.72	253	1.08	621	1.38
1909	320	1.52	228	0.99	548	1.24
1910	302	1.43	208	0.90	510	1.15
1911	346	1.64	212	0.91	558	1.26
1912	342	1.61	229	0.98	571	1.28
1913*	336	1.53	221	0.90	557	1.20
1914	330	1.52	239	0.99	569	1.24

*53 week year, the others 52.

The rates from year to year fluctuate a good deal but on averaging the rates in five yearly periods the result is as follows:—

Year.	MALES.	FEMALES.	TOTAL.
	Death-rate.	Death-rate.	Death-rate.
1905- 9	1.67	1.00	1.32
1910-14	1.55	0.94	1.23
Percentage reduction	7.2	6.4	6.8

This shows that though the death-rate from phthisis is still higher among males than among females, there is a greater tendency towards its reduction among males.

In order to compare the death-rate from phthisis in various towns, corrections must be made for the age and sex distributions of populations for these towns. The standardizing figures for this purpose were given in the Annual Report of the Local Government Board for 1912-1913. The result of standardizing is to lower the phthisis death-rate for Leeds. When compared with 75 County Boroughs on this basis for the years 1911-1912, Leeds appears for males, the eighth in the list, beginning with the highest, and for females the twenty-eighth, and for non-pulmonary tuberculosis the sixth highest for males and the seventeenth for females.

PHTHISIS. DEATHS AT VARIOUS AGES.

1914.	-5	5-10	10-15	15-20	20-25	25-45	45-65	65+	Total.
Males ..	15	5	4	19	23	156	92	16	330
Females	11	7	12	21	36	108	33	11	239
TOTALS	26	12	16	40	59	264	125	27	569

RATES FOR ABOVE PER 1,000 POPULATION.

1914.	-5	5-10	10-15	15-20	20-25	25-45	45-65	65+	Total.
Males ..	0.68	0.23	0.18	0.95	1.32	2.32	2.46	1.82	1.52
Females	0.50	0.31	0.54	0.93	1.61	1.41	0.81	0.93	0.99
TOTALS	0.59	0.27	0.36	0.94	1.48	1.83	1.60	1.31	1.24

In order to see wherein the difference lies between the death-rate from phthisis in Leeds as compared with the country as a whole it is necessary to divide up deaths according to age and sex and this is done in the tables above.

On comparing these figures with those for England and Wales one point which stands out is that the death-rate from phthisis of young children in Leeds is markedly higher than in the rest of the country. Another is that relatively to the country as a whole, Leeds is in a worse position in regard to phthisis amongst its females than amongst its males. Owing to the small numbers in each age group it is impossible to deduce much with certainty from the figures for a single year.

The age and sex distribution of phthisis deaths has not before been calculated, but the whole question of the mortality from phthisis in Leeds at different ages and in the two sexes will be investigated on some future occasion when sufficient data have been accumulated.

PHTHISIS DEATHS IN WARDS.

WARD.	Deaths.	Rate per 1000 Population.	WARD.	Deaths.	Rate per 1000 Population.
Central ..	34	2.79	Mill Hill ..	4	0.77
North ..	41	0.95	West ..	37	1.92
North-East ..	68	1.76	North-West	27	0.90
New Ward ..	3	0.38	Brunswick ..	20	0.86
East ..	69	1.87	New Wortley	22	1.38
South ..	20	1.72	Armley and Wortley ..	31	0.82
East Hunslet	58	1.73	Bramley ..	17	0.69
West Hunslet	34	0.90	Headingley ..	43	0.86
Holbeck ..	41	1.36	Total ..	569	1.24

As might be expected there are large variations in the death-rate from phthisis in the different wards of the City, and it was clearly shown in the report for last year how the death-rate from phthisis varied exactly with the density of the population, judged by the number of persons per acre, and also the percentage of overcrowding existing in different areas.

Of the 569 deaths recorded from pulmonary tuberculosis, 228 (or 40 per cent.) took place in institutions. This is just above the average of what one finds in the county boroughs throughout the

Kingdom, but it is very much lower than the percentage for the County of London, where it is over 50 per cent. The increase of accommodation for the treatment of advanced cases of tuberculosis, and the popularizing of the idea of segregation for such cases are two of the most important factors in dealing with the reduction of the prevalence of this disease.

Non-Pulmonary Tuberculosis.—The distribution according to site of disease, age and sex with rates are given in the following tables.

NON-PULMONARY TUBERCULOSIS. DEATHS.

1914.	Tubercular meningitis.	Abdominal.	Bones and Joints.	Other tuberculosis.	Total.
Males ..	37	40	7	40	124
Females ..	26	30	4	29	89
Totals ..	63	70	11	69	213

AGES AT DEATH.

Ages.	-5	5-10	10-15	15-20	20-25	25-45	45-65	65+	Total.
Males ..	72	13	7	6	5	13	6	2	124
Females	51	15	6	4	3	5	3	2	89
Totals ..	123	28	13	10	8	18	9	4	213

DEATH RATES—NON-PULMONARY TUBERCULOSIS.

Ages.	-5	5-10	10-15	15-20	20-25	25-45	45-65	65+	Total.
Males ..	3.27	0.59	0.32	0.30	0.29	0.19	0.16	0.23	0.57
Females	2.31	0.67	0.27	0.18	0.13	0.07	0.07	0.17	0.37
Totals ..	2.79	0.63	0.30	0.24	0.20	0.13	0.11	0.19	0.47

The death returns give a misleading view of the actual importance of non-pulmonary tuberculosis, except in the case of tuberculous meningitis which is an invariably fatal disease.

For instance, only eleven deaths are recorded from tuberculosis of bones and joints, but nevertheless the treatment of surgical tuberculosis is a problem of great economic importance. Such cases as tuberculosis of the hip joint, or spinal caries often last for years and though they may not die, yet are left permanently disabled, imperfectly educated, and with no means of earning a livelihood. There is very little provision for such cases in Leeds. The necessary operative treatment can be obtained at the General Infirmary, but the possible length of stay there is limited, as it is also at the Ida Convalescent Hospital to which many of the cases go. The Leeds Invalid Children's Aid Association is doing good work in this way, taking children which have been operated on at the General Infirmary to its institution, the Marguerite Home at Thorparch. Last year and the year before, 50 per cent. of its cases were tuberculous, and the open-air life and splendid surroundings have a markedly beneficial influence on the course of these surgical tuberculosis cases.

The recent developments in treatment as exemplified in the work done at Lord Mayor Treloar's Cripples' Home at Alton has improved the outlook for tuberculous bone and joint affections, and some provision of this kind is urgently called for as part of the Corporation's tuberculosis scheme in Leeds.

Notifications.—The following table shows the number of notifications of tuberculosis received during the year.

PULMONARY.

Ages.	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total.
Males ..	3	21	50	150	168	200	108	59	18	777
Females	3	9	71	149	133	79	42	32	15	533
Totals ..	6	30	121	299	301	279	150	91	33	1,310

NON-PULMONARY.

Ages.	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total.
Males ..	15	44	60	21	18	4	5	..	3	170
Females	9	40	40	24	13	7	3	1	..	137
Totals ..	24	84	100	45	31	11	8	1	3	307

Of the 1,310 notifications of pulmonary tuberculosis only 945 were received as primary notifications from practitioners, and 17 from the School Medical Officers. Of the remainder, 178 were first heard of from the Clerk to the Insurance Committee notifying the fact that patients had applied for sanatorium benefit, 78 on admission to the Poor Law Infirmary and 92 on entering a hospital or sanatorium. From this it is clear that practitioners have not yet realised that they are required to notify every case of tuberculosis as soon as they become aware of its existence. Most of these 348 cases could not have reached the authorities they did, without having been previously seen and recommended for treatment by a general practitioner. The fact that 207 cases of tuberculosis were not heard of until the deaths were found in the Registrar's death returns certified as due to this cause also shows that notification is frequently omitted. It is clear that it will be some years before the notification of tuberculosis can be of much value as an indication of the prevalence of the disease. It seems still more difficult to bring home the fact that every case of non-pulmonary tuberculosis is notifiable, only 307 notifications having been received during the year.

Treatment of Tuberculosis.—After several modifications an agreement has been reached between the Corporation, the Local Insurance Committee, and the Leeds Tuberculosis Association providing a scheme for the treatment of all cases of tuberculosis in Leeds.

The Local Insurance Committee is to hand over to the Corporation all its funds available for sanatorium benefit after the cost of domiciliary treatment and of administration has been met, and the Corporation undertakes to provide dispensary or institutional

treatment for all insured persons. The Corporation pays to the Leeds Association for the Prevention and Cure of Tuberculosis the sum of £3,000 per annum in return for which the Association sets aside 50 beds in its institutions at Armley and Gateforth for the use of patients sent by the Corporation, and the Association's dispensary at Great George Street is to be available as one of the tuberculosis dispensaries in the Corporation's scheme.

The Corporation has provided a central dispensary at the corner of New Briggate and Vicar Lane and appointed a Clinical Tuberculosis Officer, whilst the Medical Officer of Health holds the position of Chief Administrative Tuberculosis Officer. At Killingbeck alterations have been carried out so as to make the former smallpox buildings more suitable for the treatment of cases of tuberculosis. New Killingbeck is being used for male patients and Old Killingbeck for females. The Sanatorium is under the administrative supervision of the Medical Superintendent of the City Fever Hospitals. There is a resident Medical Officer at Killingbeck, and one assistant medical officer.

The chief Clinical Tuberculosis Officer besides examining patients at the dispensaries, also visits the cases under treatment at Killingbeck, and those admitted under his care at Armley House and Gateforth, as he holds the position of Honorary Physician to the voluntary Tuberculosis Association.

That treatment is not yet being applied for at a sufficiently early stage of the disease is shown by the fact that of the 642 insured persons who applied for treatment at the Central Dispensary during 1914, 122 were dead by the end of June, 1915. Sixteen of these cases had had previous treatment. Taking the remaining 106, the average time which elapsed between application for treatment and death was 21.3 weeks, while 39 died within less than ten weeks of applying for sanatorium benefit.

Various factors combine to bring about this disappointing state of affairs, for it is obviously impossible to do anything towards curing pulmonary tuberculosis if the attempt is not begun till within two or three months of death. These factors are ignorance of the provision of sanatorium benefit on the part of insured persons, delay in seeking medical advice when the first signs of lung disease shows themselves, a natural and proper hesitation on the part of

the medical man definitely to diagnose tuberculosis if the signs are doubtful, and consequent delay in applying for sanatorium benefit. The fact that the City Council's Tuberculosis Officer is available for consultation in doubtful cases of tuberculosis is probably not known to all practitioners, or else it is not sufficiently taken advantage of. All these points must be attended to if earlier treatment of tuberculosis is to be the rule.

The following tables show the number of patients that have been treated by the Corporation, and by the Voluntary Association during 1914.

(a) AT DISPENSARIES.

	NUMBERS EXAMINED.			Diagnosed as suffering from Tubercu- losis.
	Insured.	Not insured.	Total.	
Central Tuberculosis Dis- pensary	642	178	920	743
Great George Street Dis- pensary	86	395	481	405
Totals	728	573	1,401	1,148

(b) AT RESIDENTIAL INSTITUTIONS.

	NUMBER ADMITTED.	
	Insured.	Not insured.
Killingbeck Sanatorium and Hospital	622	10
Gateforth Sanatorium ..	76	65
Armley Hospital	78	138
Totals	776	213

Another branch of the work calling for further attention is the examination of the home contacts of every case of tuberculosis in order to detect those who have been infected while the disease is still in an early stage. The following figures show vividly the necessity for the examination of contacts.

Of 1,428 cases of tuberculosis recently visited on notification 812 cases or 57 per cent. were found in which there was more than one person occupying the patient's bedroom, and what is still worse 640 or 45 per cent. where there were others sleeping in the same bed with the patient.

The probability of direct infection from the sick to the healthy under such home conditions is obvious.

PART IV. **INFANT MORTALITY.**

The infantile mortality rate in Leeds for the year 1914 was 124, that is the number of deaths under one year, per thousand births belonging to Leeds. If the rate is calculated on the births which actually took place in the City whether the mothers properly belonged to Leeds or not it then becomes 123 and for the purpose of comparison with previous years and for sub-division into various districts of the City this method has to be used.

It will be seen from the table that the rate is lower than last year although still considerably above the figure that was reached in 1912 when the summer was cold and wet.

It is interesting to note, as shown in the table, at which periods of the first year of life the gradual fall in the infantile mortality rate shows itself. If we take the average rate of the first five years of the decennium and compare it with the rate of the second five years throughout the table it is found that there is no fall in the death-rate under one week nor under one month. This suggests that the unfavourable ante-natal conditions which are at work producing offspring with little or no vitality have not so far been touched by public health or other influences.

INFANTILE MORTALITY DURING THE TEN YEARS 1905-1914, AT DIFFERENT PERIODS OF
THE FIRST YEAR OF LIFE.

YEAR.	Births in year.	Under one week.		Under one month.		One and under three months.		Three and under six months.		Six and under nine months.		Nine and under twelve months.		Under one year.	
		Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
1905	.. 12,245	327	26.7	588	48.0	347	28.3	374	30.5	305	24.9	249	20.3	1,863	152
1906	.. 12,005	302	25.2	531	44.2	329	27.4	392	32.7	301	25.1	275	22.9	1,828	152
1907	.. 11,589	286	24.7	479	41.3	288	24.9	308	26.6	251	21.7	197	17.0	1,523	131
1908*	.. 11,923	313	26.3	536	45.0	309	25.9	320	26.8	289	24.2	198	16.6	1,652	139
1909	.. 10,909	308	28.2	471	43.2	230	21.1	256	23.5	208	19.1	178	16.3	1,343	123
1910	.. 10,768	299	27.8	499	46.3	259	24.1	244	22.7	223	20.7	208	19.3	1,433	133
1911	.. 10,471	267	25.5	470	44.9	346	33.0	340	32.5	285	27.2	231	22.1	1,672	160
1912	.. 10,260	263	25.6	424	41.3	187	18.2	162	15.8	137	13.4	138	13.5	1,048	102
1913*	.. 10,858	304	28.0	493	45.4	283	26.1	269	24.8	218	20.1	200	18.4	1,463	135
1914	.. 10,749	277	25.9	455	42.3	236	22.0	252	23.4	201	18.7	180	16.7	1,324	123

* 53 week years, the others 52.

From one to three months an improvement begins to show, the rate being reduced by 3.1 per cent., while at three to six months it has been reduced by 15.0 per cent. Passing on to the later stages of infancy, at six to nine months the percentage improvement is 13 per cent. and from nine to twelve months it falls again to 3.2 per cent. It would seem therefore that the influence of recent work in infant welfare has been much more marked from the three to nine months period than at any other.

That the improvement should be most marked from three to nine months is probably due to the fact that this is the period of infant life when feeding is of the most importance, and it is certain that one of the greatest results of recent infant welfare work has been to improve the feeding of children whether natural or artificial. When a child reaches the age of nine months it is commonly thought that the most difficult period is over, and that careful feeding is not so essential with the result that there is a lessening of vigilance. The experience of the Babies' Welfare Association in Leeds showed very clearly a remarkable falling off in the general condition of children after the first year, and most workers amongst infants can corroborate this.

Much requires to be done in improving the dietary of children between the stage of a purely milk diet, and the time when they can profitably take a general mixed diet.

The absence of fall in the mortality under three months points to the need, which has lately been emphasised by the Local Government Board, of greater attention being paid to ante-natal conditions by the opening of maternity centres where expectant mothers may obtain advice and treatment. The figures for the country as a whole studied over a longer period than ten years show that there is already a slight tendency towards a lessening of the death-rate during the first three months of life and it is to be hoped that when efforts are directed specially towards the mortality at this age even better results will follow.

Looking down the table (p. 40) of the causes of death of children under one year one cannot but be struck by the tremendous proportion of those deaths which are due to clearly preventable causes. For

instance, the deaths due to diarrhoea and enteritis, measles, whooping cough and other infectious diseases, tuberculosis, bronchitis, syphilis, rickets, overlying, represent a very large percentage of the total, and bring home to one what a vast amount of work has yet to be done in the reduction of our preventable infantile death-rate.

DEATHS FROM STATED CAUSES UNDER ONE YEAR OF AGE.

Causes of death.	Year 1913.	Year 1914.	Increase or decrease.
Smallpox	..	..	..
Chickenpox	..	..	..
Measles	26	34	+ 8
Scarlet fever	..	..	..
Whooping cough ..	34	57	+23
Diphtheria and Croup	5	6	+ 1
Erysipelas	3	3	..
Tuberculous diseases	56	52	- 4
Meningitis	18	22	+ 4
Convulsions	78	70	- 8
Laryngitis	2	..	- 2
Bronchitis	104	107	+ 3
Pneumonia (all forms)	141	116	-25
Diarrhoea and Enteritis	277	239	-38
Gastritis	20	15	- 5
Syphilis	44	46	+ 2
Rickets	12	5	- 7
Suffocation, overlying	12	9	- 3
Injury at birth ..	34	15	-19
Atelectasis	23	16	- 7
Congenital Malformations	56	41	-15
Premature birth ..	228	238	+10
Atrophy, Debility, and Marasmus	215	155	-60
Other Causes	75	78	+ 3
Totals	1,463	1,324	-139

Comparing the figures with last year's it will be seen that there is no very great difference due to any one cause, the chief diminution in numbers being in diarrhoea and enteritis, pneumonia, and in the atrophy, debility, and marasmus group.

INFANTILE MORTALITY DURING 52 WEEKS ENDED JANUARY 2nd,
1915. THE RATES IN EACH DISTRICT ARE CALCULATED UPON
THE WHOLE BIRTHS IN THAT DISTRICT FOR THE YEAR.

Registration District.	Births in year.	Deaths under one year.	Rate per 1,000 births.
North	1,427	148	103·7
North-East	1,021	138	135·2
West	1,550	156	100·6
South-East ..	1,324	197	149·0
Hunslet	1,882	251	133·4
Holbeck	928	124	133·6
Wortley	1,284	174	133·5
Kirkstall	953	97	101·8
Bramley	380	39	102·6
City	10,749	1,324	123·2

A glance at the infantile mortality rate for the different registration districts of the City also emphasises the preventability of a great part of infant deaths. There are no obstacles which cannot be overcome in the way of lowering the high rates in the North-East, South-East, Hunslet, Holbeck, and Wortley districts more nearly to the level of Kirkstall and Bramley. The West registration district has a low rate but it is as well to mention here that this district includes, besides the district round West Street, which is one of high mortality, all the area up to Woodhouse Moor, the low mortality in which explains the low average rate for the whole West district.

PART V.

MATERNITY AND CHILD WELFARE.

Supervision of Midwives.—During 1914, 63 midwives notified their intention to practise in the City, of which number 28 were qualified by examination and 35 bona-fide. A considerable number of midwives (18 on an average) are nurses attached to various institutions, some of whom are not available for private practice amongst the poorer classes, so that really only 45 are usually doing this work. During the year thirteen midwives left the City, one resigned on account of old age and one was struck off the roll by the Central Midwives' Board on account of negligent treatment of a patient. Another midwife was reported to the Central Midwives' Board and censured by them.

Altogether 4,157 births were attended by certified midwives during the year. This represents 39 per cent. of the total births in the City, a comparatively small percentage compared with some industrial communities.

Regular inspection of the books and bags of midwives was carried on during the year, and with few exceptions, a satisfactory standard of cleanliness was found. In 45 cases the midwife's house was also examined and two of these which were found to be dirty were cleansed by order.

Notifications of requests for medical assistance were received in 570 cases, and 9 deaths of infants and one death of the mother were notified where no medical practitioner was in attendance.

Notifications of 105 still-births were received during the year. All of these were enquired into by the women inspectors and in each case the child's body was examined.

In 20 cases inquests on the deaths of infants were attended by a women inspector.

All cases of puerperal fever and high temperature were investigated by the women inspectors, and thorough disinfection of the midwife's person, clothing and maternity bag was carried out under personal supervision. A similar procedure is carried out in instances where a midwife is found to have been in contact with any other

infectious disease. During the year five such instances occurred, two of scarlet fever, two of measles, and one of anthrax. Altogether 57 disinfections were carried out.

Ante-Natal Work.—During 1914 the cards of all maternity cases booked at the General Infirmary have been sent to the Public Health Department by the Lady Almoner and in this way 743 visits were paid by our women inspectors to 299 expectant mothers. This work is most valuable, and will develop largely under the scheme of co-operation between the Public Health Authority and the Leeds Babies' Welcome Association which will be referred to in detail later on in the report. Last year the Babies' Welcome Association dealt with 273 expectant mothers who made 1,341 attendances at the Welcomes, and it is hoped that working jointly these numbers will show a large increase.

Post-Natal Work.—The Notification of Births Act came into force in Leeds on 1st January, 1914, and under the Act 9,843 notifications were received. For some time the staff was not sufficient to cope with the immense volume of new work entailed, but nevertheless first visits were paid to 6,757 of these births, and 17,101 subsequent visits were made. In November, 1914, an arrangement was made for sharing six health visitors with the Babies' Welcome Association and during the month of December five half-time health visitors made 1,628 visits in addition to the above.

In the course of these visits 85 notices for sanitary defects and 294 for limewashing and cleansing were given and in 260 cases the defects were remedied.

Leeds Babies' Welcome Association.—Following the circular letter from the Local Government Board of July 30th, 1914, in which a comprehensive scheme of Maternity and Infant Welfare work was outlined, the Committee began the consideration of such a scheme for Leeds. It was recognised from the outset that in any scheme due regard must be paid to the work already being carried on by the Leeds Babies' Welcome Association, for during the year ending March 31st, 1915, 1,980 babies under one year of age, and 1,917 over one year were registered at the Welcomes, These infants made altogether 19,954 attendances.

The Association is an organisation supported largely by voluntary contributions, and carried on for the purpose of improving the conditions of motherhood and infancy in the City of Leeds. It maintains eight different Welcomes situated in the poorer and more populous districts of the City, viz. :—

Ellerby Road, St. Peter's Square, West Street, Jack Lane, Berking Avenue, Buslingthorpe, Armley, Holbeck, and these Welcomes act as centres whence the efforts to combat the infantile mortality in the district are organised and directed.

STAFF.—The paid staff consisted of a Superintendent, an Assistant Superintendent, and seven Nurse-Visitors, and as mentioned above the Sanitary Committee agreed to join with the Babies' Welcome Association in employing six Health Visitors.

SICK NURSERY.—Some time ago the Association, finding the need of a home into which babies could be admitted who were doing badly at home, founded in December, 1913, a nursery in Ellerby Road. This was found to meet a great need in the community, and after the outbreak of war, an institution of a precisely similar nature, but to deal primarily with the children of sailors or soldiers was opened by the Lady Mayoress' Committee at Wyther, Kirkstall, a much larger establishment, and the Babies' Welcome Association gave up the Ellerby Road Nursery and joined hands with the Lady Mayoress' Committee in maintaining the institution at Wyther. The function of this nursery or hospital is to take in young children under five whilst their mothers are incapacitated at home by illness, or have to go into a hospital or sanatorium for treatment. Sick children who are suffering from debility or wasting are also admitted and nursed back into good health. Accommodation exists for about 40 or 50 children, and there are at the present time about 45 children in the nursery. The Lady Mayoress' Committee found itself unable any longer to maintain Wyther, and asked the Babies' Welcome Association to be solely responsible, but the Association, though most anxious to continue this institution, could not without assistance face the cost of doing so. Towards the expenses, the Lady Mayoress' Fund promised to contribute £5 per week for three months, and for every child of a soldier or sailor 2s.6d. per child is paid by the mother out of her allowances, and in most of the other cases something is contributed towards the cost by the parents.

The Association also supplied milk, free or at half-price, in considerable quantities to assist necessitous cases attending a Welcome, and for a short time after the outbreak of war, dinners for expectant mothers were provided, an average of about 20 mothers and 20 children being fed daily. But the latter part of the work was given up when it was found that there was practically no abnormal civil distress in the City.

A scheme was prepared by the Deputy-Medical Officer of Health for amalgamating the work of the Association and the infant welfare work of a similar character being carried out by the Public Health Department. This scheme was approved by the Sanitary Committee, and finally adopted by the Council on February 3rd, 1915.

The scheme provided for the Sanitary Committee taking over responsibility for the whole paid staff of the Voluntary Association, such staff to continue working on the same lines as before but under the general supervision of the Medical Officer of Health. The work is divided into two sub-departments—the visiting under Miss Lansdown, the Chief Woman Sanitary Inspector, the Centres under Miss Curtis, the Superintendent of the Babies' Welcomes. The Committee also agreed to appoint a Medical Assistant whose time should be mainly devoted to infant welfare work and to developing the eight Centres into Maternity and Baby Clinics, where advice and treatment for the diseases of infancy and pregnancy would be systematically carried out. Further in order to assist in carrying on the Babies' Home at Wyther the Committee undertook to pay ten shillings a week per cot for twenty cots, these to be available for cases recommended by the Medical Officer of Health.

Although this scheme does not properly belong to the work done in 1914, yet it seems desirable to describe it in outline now, seeing that it is at the present moment in actual operation and a medical assistant has been appointed.

SANITARY INSPECTION OF DISTRICTS.

	N.E. Mr. New- house.	S.E. Mr. Coupe.	S.W. Mr. Sharp.	N.W. Mr. Carter.	City Total.
Houses completely examined for—					
Infectious disease	860	1,033	871	983	3,747
Alleged nuisance	341	155	241	283	1,000
Routine inspection .	1,634	2,074	2,034	2,875	8,617
Premises examined only as to—					
Occupants	33	70	29	44	176
Buildings and offices ..	221	48	116	206	591
Drainage	146	228	356	866	1,596
Nuisances found in above or other houses—					
Dirty or overcrowded houses	304	249	178	102	639
Dampness or dilapidation ..	163	247	167	266	843
Drain or closet defects ..	3,341	2,813	2,061	3,286	11,501
Defective ashpits or bins ..	712	591	581	1,017	2,901
Other nuisances	1,015	767	641	827	3,250
Outside nuisances found (gullies, etc.)	863	1,143	371	878	3,255
Total nuisances found ..	6,398	5,810	3,999	6,376	22,583
Additional visits paid to houses for—					
Infective disease	1,209	3,270	1,137	1,440	7,056
Nuisances	6,455	3,915	2,916	2,860	16,146
Completion of reports ..	26	37	50	241	354
To inspect work in progress ..	2,155	2,283	890	3,156	8,484
Other causes	998	1,123	1,089	2,837	6,047
Drains tested	2,950	3,450	3,262	4,675	14,337
Defects found in ditto	705	945	290	900	2,840

SANITARY WORKS CARRIED OUT DURING 1914.

NATURE OF WORK.	N.E. Mr. New- house.	S.E. Mr. Coupe.	S.W. Mr. Sharp.	N.W. Mr. Carter.	City Total.
Houses cleansed	225	187	120	52	584
Overcrowded houses dealt with	45	58	49	17	169
Defective spouting, &c., repaired	488	465	263	643	1,859
Urinals cleansed or repaired ..	2	13	6	8	29
Privies or ash places repaired ..	22	48	13	88	171
Privies or pail closets converted	42	8	15	3	68
Waterclosets erected	8	2	49	36	95
New dry ashpits	1	..	..	1	2
Ashbins provided	444	369	314	417	1,544
Trough closets converted into W.C.'s	..	5	12	13	30
Closets cleansed (limewashed), etc.	308	112	116	183	719
Drainage work carried out ..	2,736	828	733	1,263	5,560
Cesspools filled up	16	..	1	..	17
Public or private wells abolished	3	..	..	..	3
Houses supplied with town's water	7	1	1	..	9
Trough and water closets repaired	854	441	445	494	2,234
Other house nuisances remedied	1,624	2,548	1,037	1,900	7,109
Total houses for which above work was done	4,260	4,102	3,071	3,605	15,038
Houses in which all defects found have been remedied	4,212	4,077	3,051	3,576	14,916
Offensive accumulations removed and stopped gullies cleansed ..	555	829	325	398	2,107
Pollutions of streams remedied ..	19	4	..	..	23
Other non-domestic nuisances re- moved	222	93	47	101	463
Total nuisances abated	6,199	5,472	3,099	4,929	19,699

PART VI.

SANITARY ADMINISTRATION.

Sanitary inspection is carried out by a staff of one chief inspector who is in normal times the Assistant Medical Officer of Health, but who from July to the end of the year also acted as Medical Officer of Health in the absence of Dr. J. Spottiswoode Cameron, 4 divisional inspectors, 4 drainage and works inspectors, 18 ward inspectors, 1 Jewish inspector, and 2 probationers. The work done by these inspectors is shewn in the two tables which precede.

There are special inspectors for women's work, factories and workshops, lodging-houses and canal boats, smoke abatement, dairies and food and drugs, meat inspection, and housing, and their work is dealt with subsequently under these various headings. The work of two tuberculosis inspectors has been already mentioned in that section of the report dealing with Tuberculosis.

WORK OF WOMEN INSPECTORS.

In addition to the duties comprised in the Supervision of Midwives, Ante-natal visiting and the visiting of babies in connection with the Notification of Births Act, the women inspectors are responsible for a variety of work, and as they are all qualified sanitary inspectors they are capable of dealing with all defects or nuisances found.

Infectious Diseases.—Beside the complete investigation of Puerperal Fever and Ophthalmia Neonatorum, all infectious disease enquiries at infants' or girls' schools and at factories or workshops where women are affected are delegated to the women inspectors and in this connection the following visits were made.

Inspections of Schools	660
Revisits to Schools	321
Visits to absent pupils	520
Children recommended for exclusion ..	11
Visits to factories and workshops ..	511

Outworkers.—In connection with these the following work was done.

Complete Inspection of House on first visit.	Additional Visits about			TOTAL.
	Work Ordered.	Infectious Disease.	Other Causes.	
798	872	37	1,940	3,647

In addition to these visits 120 more were paid to the employers of outworkers, and the following nuisances were dealt with :—

	Served.	Complied with.
Notices to cleanse premises	181	168
Structural Defects	35	35
Overcrowding	10	10
Other Defects	18	17

Twenty nuisances reported in 1913, were found remedied in this year.

Factories, Workshops and Workplaces.—The work done by the Women Inspectors under this heading is to be found in the section of the report, pp. 50 and 51 along with that of the male workshops inspector.

Other Work.—On receipt of complaints 11 inspections of houses were made and 66 other visits were paid. Fifty-nine sanitary defects were found, of which 54 were remedied. Six reported in 1913 were found to have been since remedied.

Acting on information received from the Lady Almoner, 772 special visits were paid to 491 children attending the Leeds General Infirmary Out-patients' Department or the Public Dispensary.

FACTORIES AND WORKSHOPS.

1.—INSPECTION.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries.)	1,187	194	..
Workshops (Including Workshop Laundries.)	2,136	421	..
Workplaces	163	18	..
Total	3,486†	633	..

2.—DEFECTS FOUND.

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	361	334	..	..
Want of ventilation	159	115	..	..
Overcrowding	2	2	..	..
Want of drainage of floors	..	..	..	..
Other nuisances	392	326	..	..
Sanitary accom- modation. { insufficient ..	37	25	..	..
{ unsuitable or defective ..	473	425	..	..
Sec. 22 in force. { not separate for sexes ..	14	11	..	..
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (S. 101)	9	..	..	..
Breach of special sanitary require- ments for bakehouses (SS. 97 to 100)	55	55	..	..
Other offences	..	..	..	..
Total	1,502	1,293	..	..

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

† Exclusive of 2,323 visits to 941 bakehouses by ward inspectors, and 27 by laboratory clerk.

See special table of bakehouses.

3. 4. 5.—OTHER MATTERS.

Homework :—	Number of		
	Lists.	Outworkers.	
<i>List of Outworkers (S. 107) :—</i>		C.	W.
(No homeworkers on our register except amongst those engaged in making wearing apparel) †	..	..	..
Lists received twice in the year	354	727	1,393
„ once in the year	29	35	154
Addresses of outworkers received from other Authorities ..		116	
Addresses forwarded to other Authorities		9	
Notices to occupiers not sending lists		325	
Prosecutions		..	
Inspection of Homeworkers' premises		3,647	
<i>Homework in unwholesome premises :—</i>			
Instances		234	
Notices		234	
Prosecutions		..	
<i>Homework in infected premises :—</i>			
Instances		6*	
Orders made (S. 110)		6	
Prosecutions (SS. 109, 110)		..	
[Infectious cases removed, disinfection both of places and material carried out under ordinary powers.]			
<i>Workshops on the Register (S. 131) at the end of year :—</i>			
Ordinary (178 trades)		1,536	
Domestic (1 trade)		1	
Bakehouses on register as workshops		229	
Do. domestic		712	
Total number of workshops on Register		2,478	
<i>Matters notified to H.M. Inspectors of Factories :—</i>			
Failure to affix Abstract of the Factory and Workshop Act (S. 133)		..	
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5). {	Notified by H.M. Inspector ..	258	
Other	Reports (of action taken) sent to H.M. Inspectors ..	240	
<i>Underground Bakehouses (S. 101) :—</i>			
Certificates granted during the year		..	
In use at the end of 1913		45	

* Of these 6, 3 were patients suffering from scarlet fever, 2 from diphtheria, and 1 from erysipelas. Eight other cases were notified as Tuberculosis, and precautions were taken to prevent contamination of the work.

† Two of the above lists (containing 14 workpeople) received twice a year homeworkers engaged in sack making. All others in wearing apparel.

The above table is that required by the Home Office and represents work done by the male workshops inspector and by the women inspectors.

Much difficulty arises in getting proper sanitary conveniences constructed and kept clean and in working order in small factories and workshops, particularly the tenement factories where tenants come and go frequently. In nearly all tailoring workshops both sexes are employed, and the dual conveniences necessary are not always available, while new ones are not easily found room for. Cleanliness too, in these tenement factories is at a minimum, and almost impossible to enforce where the closets, staircases, etc., are shared in common by more than one tenant.

From the point of view of health, the ventilation of workplaces is the most important question. The employer generally assures one that it is the employees who object to ventilation, and to some extent this is true, but only in cold weather. It is not really ventilation that is objected to but draughts, and coldness of the room. The remedy lies therefore in providing a means of ventilation which will not create violent down draughts on those who must work near the windows for the sake of light, and in providing adequate means of artificially warming the air of the room so that the windows need not be shut for the sake of warmth. These are the two things which are generally at fault when a workroom is found badly ventilated, and it is certain that the slight additional cost of properly warming and ventilating the workroom will be more than repaid by the increased output of better work. One cannot conceive anything more conducive to lethargic methods than the atmosphere of some workrooms towards the end of the day.

LODGING-HOUSES, CANAL BOATS, VANS, etc.

Common Lodging-Houses.

Number registered	..	..	..	..	37
Routine Visits paid to C. L. Houses	..	..	..	..	387
Visits as to infective disease (Smallpox, 234)	..	..	..	..	249
Drain testings 12 (in six houses) defects 3..	..	..	..	..	12
Additional visits for abatements	..	..	..	..	20
Total visits					668
Nuisances found 22	..	..	Abated	..	22

Houses Let in Lodgings.

	Houses.	Rooms.
No. on register at beginning of the year ..	90	242
Removed from register during year ..	19	25
Houses let in lodgings visited though not registered	384	998
Houses examined (new lodgings) ..	53	166
Drains testings (17 defects found) ..	179	
Visits for Abatement ..	225	
„ „ Infectious Disease ..	7	
„ „ additional inspection ..	—	
Nuisances—	Found.	Abated.
Dirty or Bad Bedding	10	10
Dirty Rooms	46	72
Overcrowding	13	13
Structural Defects and other nuisances ..	266	274
Visits to Soldier's Billets	400	—

Canal Boats.

Registered during the year 1914	5
Re-registered „ „	2
Transferred to fresh owners	3
Struck off Register	26
Remaining on Register at end of year ..	206
Visits of Inspection to Wharves and Locks ..	659
Boats completely Inspected	548
Cases of Infectious Disease	nil.
Cases of Overcrowding	4
Dirty Cabins	2

Vans and Tents.

Visits to Vans during 1914	316
„ „ Tents „ „	24
„ „ Cellar Dwellings or Suspected Dwellings ..	24
Additional Visits to Camping Grounds nuisances ..	42
Visits for Infectious Disease (vans)	1
Ice Cream Carts inspected on Fair Grounds ..	10
Total	417

Nuisances—			Found.		Abated.
Dirty Camping Ground	..	..	1	..	1
Camping Ground with no accommo- dation for Van Dwellers	..	..	3	..	3
Cellar Dwellings closed	..	..	10	..	10
Total			14	..	14

At the request of the University authorities all lodgings are inspected by the Sanitary staff before the houses are placed on the register of approved lodgings for the use of students. The following work under this heading was done in 1914.

New Houses Inspected during 1914	24	with 63 rooms to let.
Houses previously examined, retested	.. .. .	116
Total visits to these houses	..	340

SMOKE INSPECTION

Complaints received	.. .. .	16
Furnaces Inspected	.. .. .	8,151
Observations of Chimneys (1 hour each)	.. ..	1,998
Average duration of Dense Smoke per Observation of one hour	.. .. .	1 min. 21 secs.
No. of Chimneys found Emitting Dense Smoke over three minutes per hour	.. .. .	126
Smoke prevention appliances adapted to Furnaces	..	43
Chimneys newly erected	.. .. .	10
Furnaces in connection with New Chimneys	.. ..	20
Notices served on Stokers..	.. .. .	49
„ „ „ Manufacturers	.. .. .	4
Prosecutions ..	.. .. .	none.

The above table represents the work done in 1914 towards smoke abatement but, it must be confessed, without much perceptible result. The problem is undoubtedly a difficult one in Leeds as in most other industrial cities. Out of 3,581 furnaces at present controllable, 3,561 have been fitted with smoke preventing appliances, but there are so many exempted trades such as the puddling of iron, or smelting of metals, that there are 2,595 furnaces not under control. Thus it often happens that because the smoke

from some of these exempted processes goes into the same chimney as that from the boiler furnaces, it is in practice impossible to deal with such chimneys as one cannot say of any particular smoke whether it is the product of the exempted process or of the ordinary boiler furnace. The remedy would be to have separate chimneys for boiler furnaces and for forges, etc.

The point also arises whether in deciding the height of a chimney it is enough to say that it must be a certain height from the ground unless the elevation of the surrounding land is taken into consideration. In this district the factories are generally situated in the bottom of the valleys, and the side of the valleys are built up with houses. The result is that even with a 100 feet chimney the top of the chimney is not uncommonly just at the level of the houses, and the smoke blows right on to the dwellings. This is well exemplified in a recurring complaint which I receive from the Woodhouse district although the manufacturer in question is complying with all the requirements of the law.

SUPERVISION OF THE FOOD SUPPLY.

As usual most attention has been paid to the milk supply. The cowsheds within the City were regularly visited by the Veterinary Inspector and the cows examined. After August, when Mr. Dixon, Veterinary Assistant and Chief Meat Inspector, was called up on active service the work was carried on by Mr. Bowman.

Inspection of Cattle.—There are 152 cowsheds in the City, containing on an average over 2,000 cows. In the course of the year 340 visits to cowsheds, and 4,571 examinations of cows were made. Seventeen cows were found with tuberculosis of the udder, and up till August such cases were dealt with under the Tuberculosis Order. When the Order was suspended on the outbreak of war all that could be done was to have the cow segregated, the milk destroyed, and the beast kept under observation as far as possible. The other details of the work are as follows:—

No. of Cowsheds in City	..	..	..	152
Visits paid by Veterinary Surgeon	..	..	..	340
Examinations of cows made	..	..	..	4,571
Cows with Tuberculous Udders	..	..	..	17
„ „ other Disease of the udder	..	..	..	3
Sheds found dirty	..	..	..	31
Farms with dirty cows	..	..	..	19

Seven cowkeepers have very unsatisfactory sheds and two of these are in the insanitary area.

Visits were paid to cowsheds outside the City on 31 occasions, and 416 examinations of cows were made.

The new Milk and Dairies' Act which was to have come into force on October 1st, 1915, but which has now been postponed, though a somewhat emasculated measure, may put the veterinary inspection of milk cows on a slightly better footing throughout the country, but it is doubtful. With regard to dealing with tuberculous milk from outside, we in Leeds will not be quite so well off as we are at present with our Local powers, yet the new Act will supersede these in time.

Tuberculous Milk.—Two hundreds samples of milk were examined for tubercle bacilli by the biological test at the Pathological Department of the Medical School. Of these, 197 were samples of mixed milks from herds outside the City, and 5 of these were found to be infected with tubercle bacilli. Two of these came from Arkholm, one from Knostrop, one from Halton and one from Birstwith. Three samples were of the milk from single suspected cows, and two of these were found to be tuberculous. In all cases the cows were dealt with according to the powers in force at the time.

All those retailing milk in the City are also under supervision, and the food inspectors visit all milk shops, and also the cowsheds, with a view to enforcing cleanliness in the methods of working.

Number of Milk Retailers	..	..	..	466
Visits to Milk Shops	..	..	..	515
„ „ Cowsheds	..	..	..	556
„ „ Railway Stations	..	..	..	198
New Cowsheds built	..	..	..	3
Cowsheds reconstructed or improved	..	..	..	14
Farms or milkshops visited on account of				
Infectious Disease	..	..	..	220

Adulteration of Food.—Under the Food and Drugs Acts the following samples were taken.

SAMPLES OF FOOD SENT TO THE CITY ANALYST FOR
EXAMINATION DURING THE 52 WEEKS ENDED
2ND JANUARY, 1915.

Article.	Genuine.	Adulterated.	Total.	Taken formally.		Taken informally.	
				Genuine.	Adulterated.	Genuine.	Adulterated.
Milk	169	93	262	155	88	14	5
Butter	35	1	36	4	..	31	1
Cream	11	..	11	..	..	11	..
Pepper	1	..	1	..	..	1	..
Ice Cream	1	..	1	..	..	1	..
Olive Oil	2	..	2	..	..	2	..
Spaghetti	2	..	2	..	..	2	..
Skim milk	4	..	4	4	..	..	..
Beer	15	..	15	..	..	15	..
Sodium bi-carbonate	4	..	4	..	..	4	..
Cream of Tartar ..	2	..	2	..	..	2	..
Flower of Sulphur ..	1	..	1	..	..	1	..
Coffee	2	4	6	1	1	1	3
White pepper	4	..	4	..	..	4	..
Gin	1	..	1	..	..	1	..
Cheese	4	..	4	..	..	4	..
Whisky	5	1	6	..	..	5	1
Margarine*	3	..	3	3	..	..	..
Flour	3	..	3	..	..	3	..
White sugar	5	..	5	..	..	5	..
Demerara sugar	2	..	2	..	..	2	..
Mixed dried fruit ..	..	1	1	..	..	..	1
Apricots, tinned ..	1	..	1	..	..	1	..
Pears, tinned	1	..	1	..	..	1	..
Pine Apple, tinned ..	1	..	1	..	..	1	..
Tinned salmon	1	..	1	..	..	1	..
Rum	2	3	5	1	..	1	3
Condensed milk	1	..	1	..	..	1	..
Barley	2	..	2	..	..	2	..
Rice	4	..	4	..	..	4	..
Jam	3	..	3	..	..	3	..
Baking powder	2	..	2	..	..	2	..
Camphorated Oil	4	..	4	..	..	4	..
White precipitate	2	..	2	..	..	2	..
Gregory powder	4	..	4	2	..	2	..
Prunes	4	..	4	..	..	4	..
TOTAL	308	103	411	170	89	138	14
				259		152	

* 2 samples sold without label.

As compared with last year the variety of foods examined has enormously increased, but the new goods sampled showed signs of adulteration in very few cases.

The infringement in the four samples of coffee returned as adulterated was in the mode of labelling. The fact that the material was sold as a mixture of coffee and chicory was not indicated clearly, and a caution was administered.

The informal sample of whiskey was diluted only to a very slight extent under the standard, and the vendor was warned. This was the case also with one of the rum samples.

The adulteration in the case of the dried fruit was contamination by mites. The goods were immediately withdrawn from sale.

There were two infringements of the Act as regards the labelling of margarine exposed for sale. Proceedings were taken in both cases. One was dismissed with a caution and one was fined 20s. including costs.

The results of the prosecutions instituted are shown in tabular form on the opposite page.

In addition to the 30 samples of milk enumerated in the table in which proceedings were taken there were 63 other samples returned as adulterated. These samples were dealt with as follows:—

Informal	5
Proceedings impossible owing to death of	
Inspector	5
No proceedings owing to bankruptcy of vendor	1
Warned by M.O.H.	16
Adulteration slight	34
Milk samples with very small amount of boric acid	2

The position in Leeds with regard to the sale of milk is still far from satisfactory, and strenuous efforts are being made to improve matters. It is possible that these may not be successful, and the fault will lie with the present state of the law on the subject, which allows a wide margin by which adulteration may go unpunished if it is practised with only a very slight modicum of skill.

SUMMONSES ISSUED DURING THE 52 WEEKS OF 1914 UNDER THE
SALE OF FOOD AND DRUGS ACT.

No. of Sample	Article.	Adulteration or Offence.	Fines.			Remarks.
			£	s.	d.	
10	Milk ..	6% added water	1	0	0	and costs ; second con- viction ; wholesale
57	Do. ..	23% do.	10	0	0	and costs ; third con- viction ; wholesale
95	Do. ..	13% do.	..	..	..	to pay costs ; second conviction ; retailer ; See No. 142
100	Margarine	Sold without proper label	..	..	..	Dismissed with caution
134	Milk ..	13% added water	5	0	0	and costs ; third con- viction ; wholesale ; see No. 10
142	Do. ..	13% do.	7	0	0	and costs ; third con- viction ; wholesale ; see Nos. 95, 150 and 151
143	Do. ..	21% do.	..	..	..	} dismissed ; error in procuring sample ; wholesale
144	Do. ..	21% do.	..	..	..	
149	Do. ..	9% do.	..	..	..	to pay £5 5s. costs ; retailer
150	Do. ..	13% do.	..	..	..	dismissed on warranty from No. 142 ; retailer
151	Do. ..	9% do.	..	..	..	to pay costs ; retailer ; see No. 142
174	Do. ..	6% added water, 4% fat removed	..	..	..	to pay costs and Analyst's fee ; re- tailer
187	Do. ..	8% added water, 8% fat removed	..	..	..	dismissed ; disputed ownership of busi- ness ; retailer
214	Do. ..	10% added water	..	..	..	to pay costs ; retailer ; see No. 226
226	Do. ..	13% do.	1	0	0	and costs ; wholesale
296	Do. ..	12% do.	2	0	0	and costs ; retailer
218	Do. ..	4% added water, 3% fat removed	..	..	..	dismissed on warranty from Nos. 311, 312 and 225 ; retailer
305	Do. ..	11% added water	..	..	..	dismissed ; wholesale
308	Do. ..	20.5% do.	1	0	0	and costs ; retailer ; see Nos. 311, 312 and 225
311	Do. ..	19% do.	2	0	0	} and costs } and costs } wholesale to pay }
312	Do. ..	16% do.	1	0	0	
225	Do. ..	6% do.	..	..	..	
328	Do. ..	13% do.	..	..	..	Analyst's fee dismissed on warranty ; retailer ; see Nos. 384 and 385
329	Do. ..	3% added water, 9% fat removed	..	..	..	dismissed on warranty ; retailer
350	Margarine	Sold without proper label	1	0	0	including costs
362	Milk ..	9% added water	15	0	0	and costs ; wholesale ; see No. 142
		False warranty (sample 142)				
384	Do. ..	16% added water	10	0	0	} and costs ; wholesale ;
385	Do. ..	22% do.				
		False warranty (sample 329)				
390	Do. ..	6.5% added water, 7.5% fat removed	..	..	..	to pay 14s. 6d. costs ; retailer
396	Do. ..	6% added water	2	0	0	and costs ; fourth con- viction ; retailer
400	Do. ..	10.5% do.	..	..	..	to pay 14s. 6d. costs ; retailer
402	Do. ..	13.5% do.	..	..	..	dismissed on warranty ; retailer
			£	58	0 0	

Meat Inspection.—The work of the meat inspectors is shown in the following table.

MEAT, ETC., DESTROYED BY CONSENT.

	1914.	1913.	1912.	1911.
Beef	72,176 lbs.	102,822 lbs.	62,943 lbs.	62,965 lbs.
Veal	3,508 „	4,822 „	5,255 „	6,310 „
Oxtails*	—	—	—	208 „
Mutton	5,270 „	7,746 „	6,220 „	6,753 „
Sheep's Kidneys*	— „	23 „	—	22 „
Pork	7,559 „	6,969 „	9,762 „	6,652 „
Offals	16,226 „	12,424 „	7,713 „	9,641 „
Foreign Offals ..	—	350	—	—
Rabbits*	12,086 „	3,221 „	3,350 „	3,134 „
Hares*	—	848 „	—	198 „
Fowls and Ducks*	1,837 „	138 „	—	457 „
Turkeys*	—	90 „	—	1,768 „
Quails	—	—	—	500
Winged Game, &c. ..	550	—	—	394 lbs.
Eggs	—	633	400	130
Cheese	—	—	192 lbs.	46 lbs.
Bread	—	—	—	84 „
Fish	46,858 lbs.	24,660 lbs.	8,949 „	24,079 „
Shellfish	19,208 „	2,633 „	8,400 „	896 „
Oysters	7,250	—	—	1,000
Lobsters	—	—	—	20
Crabs	224 lbs.	—	224 „	40
Shrimps	—	63 „	924 „	—
Fruit	7,291 „	2,143 „	7,378 „	2,979 lbs.
Vegetables	20,911 „	2,848 „	4,212 „	382 „
Mushrooms	—	—	100 „	—
Pickled cabbage ..	—	—	—	224 „
Visits to Markets, shops and railway stations	8,372	8,058	6,302	6,204
Visits to slaughter houses and knackers' yards	8,595	8,046	8,260	8,342

* Approximate weights.

The chief conditions rendering meat unfit for food were as follows :—

Tuberculosis	73 carcasses of meat.
	10 carcasses of pork.
	6 forequarters of beef.
	and many livers, kidneys, etc.
Inflammatory Conditions ..	14 carcasses of beef.
	17 carcasses of mutton.
	4 carcasses of pork.
	1 carcase of lamb, etc.
Black Quarter	7 carcasses of beef.
	12 carcasses of veal.
Emaciation	6 carcasses of beef.
	5 carcasses of mutton.
	2 carcasses of veal.
	1 carcase of lamb.
Dropsy	3 carcasses of beef.
	10 carcasses of mutton.
	8 carcasses of pork.
	2 carcasses of veal.
Swine Fever	15 carcasses of pork.
Moribund	5 carcasses of beef.
	8 carcasses of pork.
	18 carcasses of mutton.
	2 carcasses of lamb.
	26 carcasses of veal.
	1 carcase of stirk.

Every Sunday morning one of the inspectors is on duty visiting Prospect Row where a good deal of meat is sold, and generally throughout the Eastern district. On these occasions, veal, pork, rabbits, fruit, etc., has been found and destroyed.

At the end of 1914 there were still 63 registered and 10 licensed private slaughter-houses. There were also two public abattoirs, and two licensed knackers' yards.

Bakehouses.

OVERGROUND.			UNDERGROUND.			Total Visits to all.
Employees beyond family.	Workshop Bake- houses.	Domestic Bake- houses.	Employees beyond family.	Workshop Bake- houses.	Domestic Bake- houses.	
408	in 204	692	44	in 25	20	2,323

No serious cause for complaint was found during the inspection of bakehouses in 1914.

HOUSING AND OVERCROWDING.

Ordinary house-to-house inspection is carried out by each ward inspector on four half-days a week and in this way 8,617 houses were fully examined and the particulars recorded in the Housing register. Any house which is found to be in a bad state, such as cannot satisfactorily be dealt with under the Public Health Acts, is reported, and fuller details with plans, photographs, etc., are prepared by the special Housing Inspector for use when the question is discussed by the Development Committee after representation by the Medical Officer.

The following table shows the work carried out under the Housing and Town Planning Act, 1909.

	1914.	1913.
Houses examined in house-to-house work ..	8,617	6,443
Special examinations for Sections 15 and 17 of the Housing, Town Planning, &c., Act, 1909..	252	192
<i>Houses represented during 1914 .. 211</i>		
<i>Houses repaired without representation 6</i>		
<i>Houses to be yet represented .. 35</i>		
<i>Total 252</i>		

	1914.	1913.
Number of Dwelling-houses which, on inspection, were considered to be in a state so dangerous as to be unfit for human habitation	247	157
Representations	211	134
<i>Closing Orders</i>	99	
<i>Houses repaired without Closing Orders</i>	26	
<i>Houses demolished or disused without a closing order</i>	19	
<i>Representations not yet dealt with or work in progress</i>	67	
<i>Total</i>	<u>211</u>	
Closing orders on above representations ..	99	
Do. do. on property previously represented	11	
<i>Houses repaired and Closing Order determined</i>	9	
<i>Houses demolished or disused permanently</i>	24	
<i>Still in force as a Closing Order or a Demolition Order</i>	77	
<i>Total</i>	<u>110</u>	
Demolition Orders	33	11
<i>Still in force</i>	28	
<i>Houses razed</i>	5	
<i>Total</i>	<u>33</u>	
Demolished or permanently disused	77	71
Closing Orders determined	9	46

PROPERTIES DEALT WITH DURING 1914 UNDER THE HOUSING,
TOWN PLANNING. &c., ACT, 1909.

ADDRESS OF PROPERTY.	Number of houses.	DATE.					RESULT.
		M.O.H's. Representa- tion.	Closing Order.	Completion of Repairs.	Determina- tion of Clos- ing Order.	Demolition Order.	
Shepherd's Fold, 10 .. } Meadow Lane, 50.. .. }	1	June 12th, 1912	Aug. 14th, 1912	..	Oct. 14th, 1914	..	Made habitable
Barwick Road, 22, 24 ..	2	Jan. 8th, 1913	Jan. 8th, 1913	..	July 7th, 1914	..	Made habitable
Czar Street, 2, 4, 6, 8, 10..	5	Mch. 18th, 1913	July 7th, 1914	..	..	..	Demolished by City Engineer's Dept. Mch., 1915.
MacKenzie Street, 11, 15 } Towngate, 42, 44, 46, 48 .. }	2 4	Jan. 23rd, 1913	May 14th, 1913	..	May 13th, 1914	..	Made habitable
Bowman Lane, 2b, 18a ..	2	June 18th, 1913	July 9th, 1913	..	..	April 8th, 1914	Demolished June 30th, 1914
Water Lane, 88, 90, 92, 94, 96, 98	6	Dec. 10th, 1913	Jan. 15th, 1914	..	..	Sept. 9th, 1914	Unoccupied Mch., 1915
Linsley Fold, 49, 51, 53, 55, 57, 59	6	Jan. 20th, 1914	..	..	..	..	Not to be re-let
West Yard, 1	1	Feb. 17th, 1914	April 8th, 1914	..	..	Oct. 14th, 1914	Demolished Dec., 1914
West Yard, 3	1	Feb. 17th, 1914	April 8th, 1914	..	..	..	Made habitable
Millshaw, 163	1	Feb. 17th, 1914	Mch. 11th, 1914	..	..	..	Disused July, 1914
Saw Mill Street, 14, 16 .. } Butcher Street, 13, 15, 12, 26, 28, 18, 20, 22, 24 .. }	11	Feb. 17th, 1914	Mch. 11th, 1914	..	..	..	Demolished July, 1914
Meadow Lane, 116 ..	1	Feb. 17th, 1914	Mch. 11th, 1914	..	..	..	Demolished June, 1915
Blackburn Yard, 1, 2, 4, 5, 6, 7, 8, 9, 11	9	Mch. 17th, 1914	Dec. 9th, 1914	..	..	..	
Holbeck Lane, 30, 32, 34.. } Blackburn Court 1 }	4	Mch. 17th, 1914	Dec. 9th, 1914	..	..	..	} Voluntarily de- molished, July, 1914
Brown's Yard, 1, 2, 3, 4, 5	5	Mch. 17th, 1914	Dec. 9th, 1914	..	..	..	
William Street, 37 .. } Glew Court, 4 }	2	Mch. 17th, 1914	..	June 30th, 1914	..	..	Made habitable
Chesham Street, 5, 7, 11 } Booth Street, 8, 10 }	5	Mch. 17th, 1914	May 13th, 1914	..	..	..	Disused as dwell- ings, Sept., 1914
Petty's Fold, 1, 2, 3, 4, 5, and 22 } Chapel Fold, 15 }	6 1	Mch. 17th, 1914	..	..	..	..	Voluntarily demo- lished, July, 1914

ADDRESS OF PROPERTY.	Number of houses.	DATE.					RESULT.
		M.O.H's. Representation.	Closing Order.	Completion of Repairs.	Determination of Closing Order.	Demolition Order.	
Petty's Fold, 18, 20 ..	2	Mch. 17th, 1914	..	..	..	..	..
Chapel Fold, 8, 9 ..	2						
Town Street, 101, and Back Fold 1	1	April 21st, 1914	Mch. 10th, 1915	..	..	..	To be demolished
Town Street, Beeston, 91, 93, 95	3	April 21st, 1914	..	Nov. 30th, 1914	..	..	Made habitable
Town Street, Beeston, 97, 99	2	April 21st, 1914	May 13th, 1914	..	..	Jan. 13th, 1915	Demolished, May, 1915
Town Street, Beeston, 85a, 87, 89	3	April 21st, 1914	May 13th, 1914	..	..	April 14th, 1915	Demolished, June, 1915
Back Fold, 10	1	April 21st, 1914	..	Sept. 9th, 1914	..	..	Made habitable
Back Fold, 2, 3	2	April 21st, 1914	July 7th, 1914	..	..	Feb. 10th, 1915	To be demolished
Greenside Road, 18 ..	1	April 21st, 1914	..	Aug. 30th, 1914	..	..	Made habitable
Hill's Yard, 1, 2	2	April 21st, 1914	May 13th, 1914	..	..	..	Demolished, Mch, 1915
Hill's Yard, 6a	1						
Hill's Yard, 5, 6	2	April 21st, 1914	May 13th, 1914	..	..	Oct. 14th, 1914	Demolished, June, 1915
Manor Lane, 4, 5	2	April 21st, 1914	May 13th, 1914	..	..	..	Used as a store
Manor Lane, 6	1	April 21st, 1914	May 13th, 1914	..	Jan. 13th, 1915	..	Made habitable
Back Lane, 18	1	April 21st, 1914	..	Sept. 9th, 1914	..	..	Made habitab'e
Napier Street, 28, 30, 32, 34	4	May 19th, 1914	..	July 7th, 1914	..	..	Made habitable
Elland Road, 115, 117, 119	4	May 19th, 1914	..	..	..	..	Repairs in progress
Rothsay Place, 1							
Bramley's Yard, 3, 4, 5, 6	4	May 19th, 1914	..	..	..	..	Disused as dwellings.
Grey Street, 30, 32, 34, 36	4	May 13th, 1914	..	..	..	..	Work in progress
Grey Street, 38, 40, 42, 44	4	May 13th, 1914	Mch. 10th, 1915	..	..	..	In hand
White House Farm ..	1	June 16th, 1914	..	Dec. 30th, 1914	..	..	Made habitable
The Fold, Stanks, 10, 12, 14, 16	4	June 16th, 1914	July 7th, 1914	..	..	..	Work in progress
Crispin Street, 14, 16, 18, 20, 22, 24, 11, 13, 15, 17, 19, 21, 25, 27	14	June 16th, 1914	July 7th, 1914	..	..	Dec. 9th, 1914	
Cato Street, 12, 14, 16, 18, 20, 22, 26, 28	8	June 16th, 1914	July 7th, 1914	..	..	Dec. 9th, 1914	..

ADDRESS OF PROPERTY.	Number of houses.	DATE.					RESULT.
		M.O.H's. Representation.	Closing Order.	Completion of Repairs.	Determination of Closing Order.	Demolition Order.	
Organ Yard, 5, 6, 7, 8 ..	4	Aug. 12th, 1914	Aug. 12th, 1914	..	..	Feb. 10th, 1915	..
Star Fold, 10, 11 ..	2	Aug. 12th, 1914	Sept. 9th, 1914	..	..	..	Demolished, May, 1915
Water Lane, 175 ..	1	Aug. 12th, 1914	Sept. 9th, 1914	..	..	April 14th, 1915	..
Finny Yard, 2 ..	1	Aug. 18th, 1914	Sept. 9th, 1914	..	April 14th, 1915	..	Made habitable
Finny Yard, 3a ..	1	Aug. 18th, 1914	Sept. 9th, 1914	..	..	April 14th, 1915	Demolished, June, 1915
Church Street, 8, 12 ..	3	Aug. 18th, 1914	Sept. 9th, 1914	..	..	..	Work in hand
Finny Yard, 3 ..							
Low Road, 56, 60, 62, 64 ..	8	Aug. 18th, 1914	..	..	..	..	Work in hand
66, 68, 70, 72 ..							
Church Street, 4, and Finny Yard, 10 ..	1	Aug. 18th, 1914	..	..	..	..	Work in hand
Low Road, 74, and Church Street, 2 ..	1						
Finny Yard, 6, 8, 9, 10 ..	4						
Church Street, 6, and Finny Yard, 1 ..	1	Aug. 18th, 1914	Sept. 9th, 1914	..	April 14th, 1915	..	Made habitable
Church Street, 10, and Finny Yard, 4 ..	1	Aug. 18th, 1914	Sept. 9th, 1914	..	..	..	Work in hand
Church Street, 12a ..	1	Aug. 18th, 1914	Sept. 9th, 1914	..	..	..	Disused as a dwelling
John Yard, 5, 6, 7 ..	3	Sept. 15th, 1914	Oct. 14th, 1914	..	..	April 14th, 1915	Demolished, June 1915
Wade Fold, 4, 5, 6, 7 ..	4	Sept. 15th, 1914	..	Dec. 15th, 1914	..	..	Made habitable
Towngate, 50 ..	1	Sept. 15th, 1914	Oct. 14th, 1914	..	..	..	To be demolished
Crosland Street, 12a ..	1	Sept. 15th, 1914	Oct. 14th, 1914	..	..	..	To be converted into a lock-up-shop
Lower Wortley Road, 215, 217, 219, 221, 223, 225, 227, 229 ..	6	Sept. 15th, 1914	..	Mch. 31st, 1915	..	..	Made habitable
East Street, 3, 5, 7 ..	3	Sept. 15th, 1914	..	..	..	..	Demolished by C.E. Dept.
Steep Causeway, 11, 17, 18, 19 ..	4	Dec. 15th, 1914	..	..	..	..	Demolished, Mch., 1915
Burley Street, 74, 76, 78, 80 ..	4	Dec. 15th, 1914	April 14th, 1915	..	..	..	..
Burley Street, 82 ..	1	Dec. 15th, 1914	..	..	..	..	Not to be re-let

ADDRESS OF PROPERTY.	Number of houses.	DATE.					RESULT.
		M.O.H's. Representation.	Closing Order.	Completion of Repairs.	Determination of Closing Order.	Demolition Order.	
Tempest Court, 2 ..	1	Dec. 15th, 1914	Jan. 13th, 1915	..	..	..	Demolished, May, 1915
Tempest Yard, 25 ..	1	Dec. 15th, 1914	..	Mch. 31st, 1915	..	..	Made habitable
Tempest Yard, 26, 28, 30, 32	4	Dec. 15th, 1914	Jan. 13th, 1915	..	..	..	Boarded up
Boundary Cottage ..	1	Dec. 15th, 1914	Mch. 10th, 1915	..	..	..	Not to be re-let
Back Claremont Place, 11, 12, 13	3	Dec. 15th, 1914	..	..	..	..	Work in progress
Back Claremont Place, 14 and 15	2	Dec. 15th, 1914	..	Mch. 31st, 1915	..	..	Made habitable
Queen's Place, 68.. ..	1	Dec. 15th, 1914	..	..	..	..	Work in hand
Mill Fold, 9, 10, 11, 12 .. Temperance Fold, 1, 2, 2a, 3	8	Dec. 15th, 1914	..	..	..	..	Work in hand
Temperance Fold, 5, 6, 7, 10, 11	5	Dec. 15th, 1914	..	..	..	..	Work in hand
Temperance Fold, 12, 14	2	Dec. 15th, 1914	Feb. 10th, 1915	..	..	..	..
Labro Fold, 2	1	Dec. 15th, 1914	..	..	..	..	Work in hand

Overcrowding.—During 1914 the Development Committee considered the advisability of proceeding with a housing scheme, and the City Engineer was asked to prepare a return of vacant houses available, and the Medical Officer a return of the overcrowding found. The figures for overcrowding were as follows:—

	1913.	1914.
Number of Houses found overcrowded	204	169
Abated by Removal	133	102
„ „ Reduction of number of Occupants	43	55
Not abated	28	12

In compiling the figures just given the standard used was :— for bedrooms, 300 cubic feet of air space for each adult and 150 cubic feet for each inmate under 10 years. In combined rooms, *i.e.*, rooms used for both living and sleeping, 400 cubic feet and 200 cubic feet respectively.

The comparative figures for overcrowding since 1900 are as follows :—

Year.	No. of Overcrowded Houses found.	Year.	No. of Overcrowded Houses found.
1900 ..	542	1907 ..	227
1901 ..	523	1908 ..	244
1902 ..	369	1909 ..	251
1903 ..	304	1910 ..	196
1904 ..	296	1911 ..	231
1905 ..	386	1912 ..	193
1906 ..	275	1913 ..	209
1914 ..		169	

If overcrowding is considered on the basis of the number of persons per room, then the following figures from Vol. viii. of the Census report show the position of Leeds as compared with other communities.

PROPORTION PER 1,000 OF THE POPULATION LIVING IN HOUSES
HAVING VARIOUS AVERAGE NUMBER OF OCCUPANTS PER ROOM.

	England and Wales.	All County Boroughs	Liverpool.	Manchester.	Birmingham.	Sheffield	Leeds.	Bradford.	Hull.	Newcastle.
I. Having over 2 persons per room	91	94	101	73	102	84	110	94	81	317
II. Having over 2½ persons per room	43	43	46	24	47	34	45	44	29	215
III. Having over 3 persons per room	15	15	14	5	10	6	12	14	4	118
IV. Having over 4 persons per room	7	8	8	2	2	1	4	5	1	72

The towns shown for comparison are those with a population of over 200,000 in the northern part of England. The table shews that Leeds stands next to the highest in the proportion of the population living in houses with over two persons per room, and this is the standard generally adopted to represent overcrowding. Such a standard takes no account of the size of the rooms, and as 11.7 per cent. of Leeds houses are two roomed, and 24.8 per cent. three roomed, it is not surprising that Leeds stands high in the comparison just made.

Now in a series of 125 houses of two and three rooms, situated in various parts of Leeds, which I have had measured, I find that the living room averages 1,435 cubic feet. In two roomed houses the bedroom averaged 1,451 cubic feet; in three roomed houses the first bedroom averaged 1,279 cubic feet, and the second bedroom 725 cubic feet. These numbers suggest that in Leeds there is not necessarily bad overcrowding, although there are over two persons per room.

I have therefore shown on the table the proportion of the population living in the various towns with an average of over 2½ persons per room, 3 persons and 4 persons per room. From being next to worst in line I. of the table, Leeds changes its position in line II. to fifth among the cities, and nearly the same as the average for England and Wales and for the county boroughs; in lines III. and IV., Leeds is again fifth and better than the average for England and Wales, and for the County boroughs.

WATER SUPPLY.

The following note on the water supply has been kindly supplied by Mr. C. G. Henzell, Waterworks Engineer.

The quality of the water supplied to the City and district during the year has been very good, and in spite of the long drought, from April to November the full supply was maintained without any restriction, there never being less than 70 days' supply in the reservoirs.

SEWERAGE AND SEWAGE DISPOSAL.

The construction of the main intercepting sewer from the northern part of the City continues, and at the same time extension of the sewage disposal works at Knostrop is being carried on. At

present the sewage at Knostrop is being treated by lime precipitation and subsequent settling, but when the new works are completed the effluent from the lime precipitation will be passed through bacteria beds before being discharged into the river.

At Rodley works the sewage is treated by a septic tank and subsequent bacteria beds and land filtration.

During 1914 a new sewer was laid in the recently added area of Shadwell, and with few exceptions all the privies and cesspools in the district have been abolished.

The usual difficulty arises however that in many cases the sewer does not come to within 100 feet of the premises, so that unless the owner is willing there is no statutory power to order a conversion from privy to watercloset.

During the year, 23 domestic pollutions of streams were abated, 19 being situated in the newly sewered Shadwell area, and 4 in the South Ward. One factory urinal was disconnected from running into a stream.

CLOSET ACCOMMODATION.

At the middle of July, 1914, there were in the City approximately 84,000 separate water closets, 11,000 trough closets (seats, not blocks), 1,451 privies and 320 pail closets.

During the year 58 privies and 10 pail closets were converted into ordinary water closets. Nineteen cesspools were also abolished of which 17 were in the added area.

CLEANSING AND SCAVENGING.

During the year the administration of the cleansing department was transferred from the Sanitary Committee to the Highways Committee which then became known as the Cleansing Committee. Under the new régime I have no doubt there will still be every opportunity afforded for co-operation between the Cleansing department and the Sanitary department, so that the cleansing of the City may be carried out with efficiency, and on the most hygienic lines.

Additional motor street sweepers have been brought into use, and the extended use of water for street washing is under consideration. From the point of view of the public health there is no doubt that the systematic washing of streets is of the greatest value.

There is room for a much more willing co-operation with the Authorities on the part of the general public, particularly shop-keepers, in maintaining the cleanliness of the City. For instance the almost universal habit of shop-keepers of sweeping their shops in the morning out on to the pavement, and simply leaving the shop sweepings in the gutter is the cause of a great deal of dust in the streets. It is a cause of discomfort and danger to pedestrians and undoubtedly a great part of the dust swept out and left in the street simply finds its way back into the shop whence it came. The sensible plan is to gather all sweepings together, and put them into the dustbin.

The abolition of ashpits continues as before, and during the year every ashpit which fell into disrepair was abolished and replaced by metal dust bins, but there still remains about 20 per cent. of these abominations in use. There remain also about 300 cesspools in the City, and these are mostly emptied by the Corporation Cleansing Department.

AMBULANCE WORK AND DISINFECTION.

The following cases were removed by the Ambulances to the City Hospitals at Seacroft and Killingbeck during 1914.

Smallpox	3
Scarlet Fever	1,254
Diphtheria	579
Typhoid Fever	97
Other Diseases	201
Total	2,134

In addition to the above, 37 persons were conveyed to the Quarantine Cottages at Seacroft, and one Scarlet Fever patient was removed from Roundhay to Meanwood.

During the latter part of 1914, a large number of the cases were removed in a Motor Ambulance which was hurriedly put together in August after most of the available horses were bought for Army purposes, and the whole question of Ambulance arrangements is now under consideration of the Sanitary Committee.

Disinfection.—The following work was done by the Disinfecting Staff.

Houses Disinfected	3,339
Rooms Disinfected (stripped 344, limewashed 150)	11,516
Beds and Mattresses Disinfected	6,649
Articles of Bed Clothing Disinfected	30,572
Articles of Wearing Apparel Disinfected ..	44,049
Miscellaneous Articles Disinfected	12,036

Also 314 infected persons or contacts went or were taken to one or other of the Sanitary depots to have a disinfecting bath and disinfection of clothing carried out.

At the Sanitary Laundry at Beckett Street, 37,411 articles of bedding, clothing, etc., have been washed and disinfected.

Hospital Treatment.

RETURN OF CASES TREATED IN HOSPITALS AT SEACROFT AND KILLINGBECK.

	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Tuberculosis.	Other.	Total.
Number in Hospital on Jan. 3rd, 1914	..	214	108	16	125	26	489
No. since admitted	5	1,209	564	68	632	372	2,850
No. discharged ..	5	1,187	560	54	576	332	2,714
No. died	..	26	44	12	67	32	181
No. remaining on Jan. 2nd, 1915 ..	..	206	68	18	114	38	444

A detailed report of the work done in the City Hospitals will be presented by the Medical Superintendent of the Hospitals.

Laboratory Work.—During the year the following bacteriological examinations were made at the Pathological Department of the School of Medicine.

Throat or Nose Swabs for Diphtheria	1,157
Sputa for Tuberculosis	321
Bloods for Typhoid Agglutinations	29
Milks for Tubercle bacilli (biological test) ..	200

In addition the following work was done in the laboratory of the Medical Officer of Health.

Milks Analysed by Gerber method	155
Milks examined for Tubercle bacilli	4

Influence of the War.—At the outbreak of the war the following members of the staff were called up:—

Veterinary Inspector	J. A. Dixon,		
	M.R.C.V.S.	..	Lieut. Army Veterinary Corps (T.).
Drainage Inspector ..	S. Tiplady ..	..	Sergeant Major, R.F.A. (T.).
Workshops Inspector	T. Wilkinson	..	Trumpeter, Yorkshire Hussars.
Clerk	J. Coyne ..	..	Gunner, R.F.A. (T.)
Clerk	F. Kelly ..	..	Private, R.A.M.C. (T.)
Disinfecting Staff ..	T. Hudson ..	..	Sergeant, R.F.A. (T.)
Lavatory Staff ..	R. Whitaker	..	Corporal, K.O.S.B.

Mr. T. Wilkinson failed to pass the medical examination for foreign service and therefore resumed his duties as Workshops Inspector.

The other members of the staff who have enlisted since August are:—

Drainage Inspector ..	J. A. S. Balmforth ..	R.A.M.C. Sanitary Section.
Inspector	A. Hudson	" " "
"	T. Barrand	" " "
"	*J. E. Ainsworth ..	" " "
"	J. S. Lindley	" " "
Clerk	G. Coupe	" " "
Disinfecting Staff ..	W. B. Thompson ..	York. and Lancaster Regt.

* Died of disease at the Dardanelles.

Inspectors Davies, Chew, Pagdin, Richardson, Ferguson and P. Woodcock, a clerk, offered their services but were rejected as medically unfit. Inspector Whitehead has been released to work on munitions. No new inspectors have been engaged, but by curtailing the amount of routine house-to-house inspection done, the essential sanitary work is being carried out by the remaining staff.

Three clerks have gone out of a total of nine available, and the necessary clerical work is being carried on by the remainder with considerable difficulty.

The assistance of the Department has been lent to the military authorities in every possible way. The sanitary supervision of billets, whether in private houses or in halls or schools, has entailed a large amount of visiting on the part of the inspector of lodging-houses. Food which is being supplied for the use of troops is inspected so far as is possible. All cases of infectious disease amongst troops in Leeds are being treated at the City Isolation Hospital, and great precautions are taken with soldiers on leave, etc., to see that no infection is carried back by them to their military stations if they should happen to have been in contact with a case of infectious disease whilst in Leeds. An enormous number of articles of military clothing, blankets and equipment have been disinfected.

LOCAL GOVERNMENT BOARD TABLES.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1914 AND PREVIOUS YEARS.

Year.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Number.	Nett.		Number.	Rate.	Of Non-residents registered in the District.	Of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Net Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1909	442,663	11,002	Nett births not obtainable		6,667	15.1	194	333	1,344	..	6,806	15.4
1910	444,323	10,867			6,624	15.0	228	315	1,433	..	6,711	15.2
1911	445,983	10,597			7,124	16.0	283	490	1,679	159	7,331	16.5
1912	447,746	10,367			6,204	13.9	275	467	1,051	102	6,396	14.3
1913	457,295	10,947			7,231	15.6	281	287	1,469	135	7,237	15.6
1914	459,260	10,749			6,874	15.0	313	324	1,324	124	6,885	15.0

Area of District in acres (land and inland water) } 21,593

Total population at all ages .. 445,550 }
Total families or separate occupiers .. 102,514 } At Census, 1911.

In November, 1912, by the addition of Roundhay, Seacroft, Shadwell and Crossgates, the area was increased by 4,670 acres and the population by 7,398 (Census 1911).

TABLE II.
CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR 1914.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.							TOTAL CASES NOTIFIED IN EACH LOCALITY. (e.g. Parish or Ward) of the District.													Total Cases re-moved to Hos-pital.				
	At all Ages.	At Ages—Years.					Central.	North.	North-East.	New Ward.	East.	South.	East Hunslet.	West Hunslet.	Holbeck.	Mill Hill.	West.	North-West.	Brunswick.	New Wortley.		Armley and Wortley.	Bramley.	Headingley.	
		under 1.	1 and 5 years.	5 and 15 years.	15 and 25 years.	25 and 45 years.																			45 and 65 years.	65 and upwards.
Small-pox	5	..	..	..	2	2	1	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	5	
Cholera (C) Plague (P) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Diphtheria (including Mem-branous croup)	700	6	178	329	116	66	5	..	16	24	13	56	103	50	13	35	34	33	20	30	21	107	559		
Erysipelas	509	9	10	32	85	149	180	44	17	46	17	41	37	40	13	26	34	19	20	51	16	58	51		
Scarlet fever	1,346	2	279	847	160	52	6	..	30	55	16	81	110	61	2	57	129	40	47	169	72	223	1,207		
Typhus fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Enteric fever	84	..	1	16	19	32	16	..	4	4	2	13	5	6	1	5	9	3	3	3	10	5	67		
Relapsing fever (R) Continued fever (C)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Puerperal fever	46	..	..	..	16	30	..	..	..	3	..	4	1	5	1	5	..	2	..	6	5	5	11		
Cerebro-spinal Meningitis ..	2	..	1	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..		
Polio-myelitis	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..		
Ophthalmia Neonatorum ..	85	85	..	..	..	..	..	..	2	7	5	11	5	4	2	5	2	4	5	6	5	5	..		
Pulmonary Tuberculosis ..	1,310	6	30	121	299	580	241	33	88	126	47	88	94	106	13	93	99	67	29	60	26	100	952		
Other forms of Tuberculosis	307	24	84	100	45	42	9	3	4	15	11	39	42	38	2	23	12	14	9	18	9	21	14		
Continued High Temperature	11	..	..	..	3	8	..	..	1	1	1	1	1	1	1	..	..	1	..	..	..	2	1		
TOTALS	4,406	132	584	1,446	745	961	458	80	162	402	385	48	281	112	337	400	311	48	249	319	183	343	164	526	2,867

Isolation Hospital or Hospitals, Sanatoria, &c.—City Fever Hospital, Seacroft. City Tuberculosis Hospital, Killingbeck. Armley Tuberculosis Hospital.

TABLE III.
CAUSES OF, AND AGES AT DEATH DURING THE YEAR 1914.

[illegible]

TABLE IV.

INFANT MORTALITY. 1914. NETT DEATHS FROM STATED CAUSES
AT VARIOUS AGES UNDER 1 YEAR OF AGE.

CAUSES OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 months and under 6 months.	6 months and under 9 months.	9 months and under 12 months.	Total Deaths under 1 year.
All causes { Certified	277	65	59	54	455	236	252	201	180	1,324
{ Uncertified	..	..	..	..	..	..	..	..	..	..
Small-pox	..	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	..	..	..	..
Measles	..	..	1	..	1	1	1	14	17	34
Scarlet fever	..	..	..	..	..	..	..	..	..	..
Whooping Cough	..	..	..	..	..	10	16	16	15	57
Diphtheria and Croup	..	..	..	..	..	..	2	1	3	6
Erysipelas	..	..	..	..	..	2	1	..	..	3
Tuberculous Meningitis	..	..	..	..	..	..	2	2	2	6
Abdominal Tuberculosis	..	..	..	..	..	5	6	7	6	24
Other Tuberculous Diseases	..	..	..	..	..	4	9	6	3	22
Meningitis (not Tuberculous)	..	..	..	..	..	5	3	6	8	22
Convulsions	14	6	6	3	29	14	11	7	9	70
Laryngitis	..	..	..	..	..	..	..	..	..	..
Bronchitis	3	2	3	7	15	28	23	25	16	107
Pneumonia (all forms)	..	..	..	..	..	12	32	34	38	116
Diarrhoea	..	1	3	3	7	33	43	30	25	138
Enteritis	2	4	6	4	16	27	31	21	6	101
Gastritis	1	..	2	..	3	3	6	1	2	15
Syphilis	2	6	2	1	11	17	12	4	2	46
Rickets	..	..	..	..	..	..	..	1	4	5
Suffocation, overlying	1	..	2	2	5	1	2	1	..	9
Injury at birth	12	..	1	1	14	1	..	..	..	15
Atelectasis	13	2	..	1	16	..	..	..	..	16
Congenital Malformations	15	4	4	3	26	5	5	4	1	41
Premature birth	163	24	14	16	217	19	2	..	..	238
Atrophy, Debility and Marasmus	41	11	9	9	70	38	30	10	7	155
Other Causes	10	5	6	4	25	11	15	11	16	78
Totals	277	65	59	54	455	236	252	201	180	1,324

