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City of Leeds.



**ANNUAL REPORT**

OF THE

**MEDICAL OFFICER OF HEALTH**

For the Year,

**1921.**





CITY OF LEEDS.

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REPORT

ON THE

**Health and Sanitary Administration**

OF THE CITY

FOR THE YEAR 1921.

BY

J. JOHNSTONE JERVIS, M.D., D.P.H.,

*Medical Officer of Health.*

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# CITY OF LEEDS.

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

*Gentlemen,*

*In presenting my Annual Report for 1921, I beg to draw your attention to the vital statistics of the City, which in certain respects show a remarkable improvement. The general death-rate (13.5) and the infantile mortality rate (98) were the lowest on record; whilst there was a very gratifying decrease in the incidence of the ordinary infectious diseases including Pulmonary Tuberculosis. True, the improvement was general over the whole country, but in a City of the size and type of Leeds such a reduction as is recorded, not only in the number of deaths but also in the amount of disease, is highly creditable. The climatic conditions which ruled for the greater part of the year certainly disposed to health and operated strongly in favour of low death and sickness rates, but one must also give a certain amount of credit for the good report to the sanitary administration of the City, which probably at no other period in its history ever reached such a high level of efficiency. To achieve this happy result, the whole staff of the Public Health Department has worked loyally and earnestly, and I wish to take this opportunity of expressing my appreciation of their splendid services.*

*Especially do I thank my late assistant, Dr. R. H. H. Jolly, now Medical Officer of Health of Wolverhampton, and Dr. Nora Smith for their valuable assistance in conducting the affairs of the department during the year.*

*To the Members of the Health Committee I tender my thanks for their continued courtesy and support.*

*I am, Gentlemen,*

*Your obedient servant,*

*J. JOHNSTONE JERVIS.*

*Public Health Department,  
Market Buildings,  
July, 1922.*

## SUMMARY, 1921.

---

LATITUDE 53.48° North.      LONGITUDE 1.32° West.

AVERAGE HEIGHT ABOVE SEA LEVEL 250 feet.

AREA OF CITY .. .. .	..	..	..	..	28,089 $\frac{3}{4}$ Acres.
POPULATION (Registrar-General's estimate) ..	..	..	..	..	465,500
ESTIMATED NUMBER OF HOUSES .. .. .	..	..	..	..	113,637
RATEABLE VALUE .. .. .	..	..	..	..	£2,741,777
SUM REPRESENTED BY A PENNY RATE .. .. .	..	..	..	..	£10,644

				Average.	
				1921.	1911-20.
BIRTH RATE (births per 1,000 living) .. .. .	..	..	..	21.79	21.34
MARRIAGE RATE (persons married per 1,000 living) ..	..	..	..	18.73	17.48
DEATH RATE (deaths per 1,000 living) .. .. .	..	..	..	13.50	16.05
NATURAL INCREASE OF POPULATION .. .. .	..	..	..	3,859	2,389
(Excess of births over deaths in the year)					
INFANT MORTALITY RATE .. .. .	..	..	..	98	127
(Deaths under 1 year per 1,000 births)					
DEATH RATE from Pulmonary Tuberculosis .. .. .	..	..	..	1.11	1.36
"    "    other forms of Tuberculosis .. .. .	..	..	..	0.26	0.52
"    "    Pneumonia and Bronchitis .. .. .	..	..	..	2.40	2.79
"    "    Cancer .. .. .	..	..	..	1.19	1.11
"    "    Diarrhoea and Enteritis (under 2 years)	..	..	..	18.14	25.26
per 1,000 births .. .. .					
				Case-	Death
				rate.	rate.
SCARLET FEVER .. .. .	..	..	..	1,526	3.28
				14	.03
DIPHTHERIA .. .. .	..	..	..	665	1.43
				38	.08
TYPHOID FEVER .. .. .	..	..	..	24	0.05
				2	.00
MEASLES .. .. .	..	..	..	240	0.52
				5	.01



## CITY OF LEEDS.

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### **NATURAL AND SOCIAL CONDITIONS.**

---

**Area.**—The area of the City at the 1911 census was 21,593 acres. In 1912 the City was extended to include Roundhay, Seacroft, Shadwell and Crossgates, which added a further 4,682 acres, and in 1920, Middleton, with an acreage of 1,814 $\frac{3}{4}$ , was added, making a total at the 1921 census of 28,089 $\frac{3}{4}$  acres. In relation to the City area, it may here be mentioned that in 1920 another application for the further extension of the City boundary was made to the Ministry of Health, and a local enquiry was held in the beginning of 1921, as a result of which a Provisional Order was granted to include within the boundaries part of Pudsey, Farsley, Calverley, Rawdon and Yeadon, the whole of Horsforth, part of Adel-cum-Eccup, part of Rothwell (Stourton), the whole of Thorpe Stapleton, Templenewsam, and part of Austhorpe. The Bill to confirm this Order has recently been presented to the House and rejected on the second reading. Had the Bill succeeded in passing both Houses without modification or amendment it would have meant the addition to the City of an area of approximately 14,292 acres, and a population of 48,270.

**Population.**—The population of the City at the 1911 census was 445,550. By the addition of Roundhay, Seacroft, Shadwell and Crossgates in 1912, and Middleton in 1920, this was increased to 454,155. During the year another census was taken and the preliminary report of the Registrar General gives the figure for Leeds as 458,320. Since the publication of that Report, the Registrar General has made an adjustment of the population of many of the large towns, the new figure for Leeds being 465,500. The reason for these alterations was the marked discrepancies between the populations of large urban areas and those of country and seaside health resorts revealed by the census figures. The former were

obviously understated and the latter overstated, the explanation being that the census was taken at a week-end in the middle of the holiday period during a spell of beautiful weather when the movement of the population was bound to be great. But, notwithstanding the revision of the first census figure, the new estimate for the City is probably still too low. Assuming the revised figure to be

## POPULATION IN WARDS.

WARD.	Census, April 2nd, 1911.	Census, June 19th, 1921.	Adjusted population, 1921.
Central .. .. .	14,503	12,540	12,737
North .. .. .	41,968	42,410	43,074
North-East .. .. .	36,239	36,020	36,584
East .. .. .	34,701	35,258	35,810
South .. .. .	12,562	12,814	13,015
East Hunslet .. .. .	33,562	34,121	34,656
West Hunslet .. .. .	35,766	36,143	36,709
Holbeck .. .. .	29,679	29,438	29,899
Mill Hill .. .. .	5,856	5,290	5,373
West .. .. .	20,553	22,030	22,375
North-West .. .. .	30,570	31,531	32,025
Brunswick .. .. .	23,219	23,940	24,315
New Wortley .. .. .	16,714	17,784	18,063
Armley and Wortley .. .. .	37,419	36,789	37,365
Bramley .. .. .	23,937	23,489	23,857
Headingley .. .. .	48,302	49,758	50,538
	445,550		
*Roundhay, Seacroft, Shadwell and Crossgates .. .. .	7,398	7,813	7,935
	452,948		
†Middleton .. .. .	1,207	1,152	1,170
	454,155	458,320	465,500

\* Added to Leeds November, 1912.

† Do. April 1st, 1920.

accurate it means that the population of the City has advanced 11,345 in the decade, or only 2.5 per cent. This is the smallest increase which has been recorded in any decade since the Census Act came into force. The failure of the population of the City to maintain the rate of growth of previous years is due largely to war losses, which amounted to quite 10,000 lives, though against this must be placed the number—it must have been considerable—of people who came to the City during the period of the war to work in munition and other factories engaged on Government work, and who have since become permanent residents. The new population of 465,500 is made up of 218,984 males and 246,516 females, or in other words, the proportion is 1,126 females to 1,000 males in Leeds, as compared with 1,095 to 1,000 in England and Wales. The allocation of the population to the various wards of the City is given in Table on page 8. When the final report of the Census is published it will be possible to give a more complete and detailed analysis of the composition of the population.

The number of houses at the 1911 census was 111,628 and of these 102,514 were inhabited, 7,144 empty and 1,970 occupied though empty on the date of the census. At the 1921 census it was estimated that there were 113,637 houses but exact information as to number, type, etc., will not be available until the final report of the census is published.

The rateable value of the City is £2,741,777, the sum represented by a penny rate £10,644.

### VITAL STATISTICS.

**Marriages.**—The number of marriages registered during the year totalled 4,566, which includes marriages in the registration districts\* of Leeds, Hunslet, Holbeck, and Bramley. This figure is 1,054 less than that for 1920, which was 5,620. The marriage rate calculated on the population of the above districts, 487,537, was 18.7 per thousand, as compared with 23.5 per thousand in 1920,

---

\* Registration districts are based on the areas of Poor Law Unions, of which there are four in Leeds, but the boundaries of the Unions do not coincide with those of the City. The whole of the Leeds Union is within the City, but only parts of the Hunslet, Holbeck and Bramley Unions. The Hunslet Union includes Templenewsam and Rothwell, Holbeck includes Churwell, and Bramley Union includes Gildersome.

a drop of nearly 5 per thousand. The shortage of houses and the depressed state of industry probably account for the big fall in the rate.

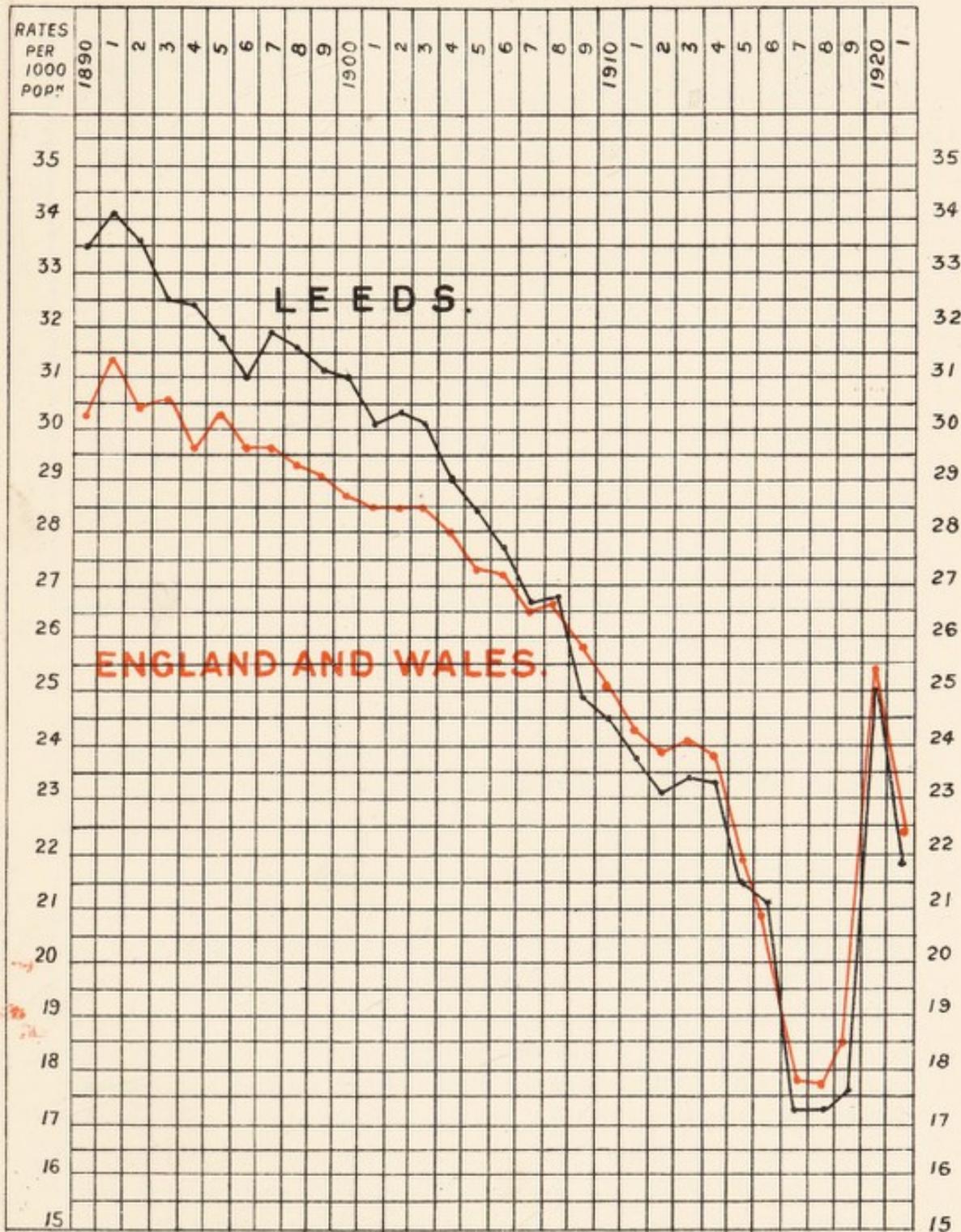
**Births.**—The total number of births registered during 1921 was 10,427, comprising 5,349 males and 5,078 females. Of these, 167 males and 163 females belonged to districts outside the City and have therefore to be deducted from the total, and 24 males and 23 females born outside but belonging to the City have to be added, the nett total thus arrived at being 10,144, made up of 5,206 males and 4,938 females. Comparison with the year 1920 shows a reduction in the nett births of 1,085.—The birth-rate for the year was 21·8 as compared with 25·0 for the previous year—a fall of 3·2—and with an average of 19·7 for the previous five years—an increase of 2·1.

It was not expected that the birth-rate would remain at the phenomenally high figure which it reached in 1920, but the fall

#### MARRIAGE RATE.

Year.	Leeds.	England and Wales.
1911	15·7	15·2
1912	16·0	15·5
1913	16·4	15·5
1914	16·6	15·9
1915	20·2	19·5
1916	15·5	14·9
1917	14·2	13·8
1918	15·5	15·3
1919	21·2	19·7
1920	23·5	20·1
1921	18·7	16·9

# BIRTH-RATE 1890-1921.





## BIRTH RATE.

Year.	No. of births.	Birth rate, LEEDS.	England and Wales.
1890-1894 .. ..	62,270	33·2	30·5
1895-1899 .. ..	63,873	31·5	29·6
1900-1904 .. ..	64,791	30·1	28·4
1905-1909 .. ..	59,117	26·9	26·7
1910-1914 .. ..	53,267	23·6	24·2
1915 .. .. ..	9,877	21·5	21·9
1916 .. .. ..	9,432	21·1	20·9
1917 .. .. ..	7,566	17·3	17·8
1918 .. .. ..	7,392	17·3	17·7
1919 .. .. ..	7,564	17·6	18·5
1920 .. .. ..	11,229	25·0	25·4
1921 .. .. ..	10,144	21·8	22·4

was more marked than was anticipated. The explanation probably lies to a considerable extent in the fact that during 1921 trade was very bad and there was in consequence an enormous amount of unemployment. There is a very definite relationship between the birth-rate and commercial prosperity, the rate rising in good and showing a corresponding reduction in bad times.

At the present time one hears a good deal about birth control, not that the subject is new, because in some form or other control has been practised from the very earliest days of history, but stress of industrial and economic conditions, together with a desire for publicity on the part of certain eugenists have brought it again into prominence. It is a difficult subject to give any pronounced opinion upon because of the many issues involved. All are agreed that to limit the production of the unfit is most desirable in the interest both of the race and the state, but there are different opinions as to how this is to be achieved and as to whether in the achievement the number of fit lives born into the community

is to suffer reduction. After all, the size of the family which it is possible to rear in comfort and with success is a relative matter, and depends very largely on the ability of the parents to fulfil their obligations. Social status, income, and environment are undoubtedly important factors, but the most important factor of all is the parents. One has known of large families being successfully reared where the social conditions have been entirely adverse but where the parents knew their job and did it. Men and women who are ignorant of or who dislike the duties associated with a home and the bringing up of children should shun marriage.

An analysis of the births showing their distribution in wards is given on page 13, and details respecting the notification and visitation of births on pages 98 and 99.

*Birth-rate in Quarters.*—The birth-rate for the first quarter of the year was 21·9, for the second, 22·4, for the third, 22·2, and for the fourth, 20·7.

*Excess of Births over Deaths.*—The excess of births over deaths or what is often spoken of as the “natural increase of population” was 3,859, or 779 less than the figure for the previous year.

*Illegitimate births.*—Of the nett total of births registered 10,144 9,579 (4,909 males 4,670 females) or 94·4 per cent. were legitimate and 565 (297 males 268 females) or 5·6 per cent. illegitimate. The ratio of illegitimate to legitimate births is practically the same as it was last year, namely 1 to 17.

Further particulars are given in the accompanying table.

YEAR.	Illegitimate births.	Percentage of births registered.	Rate per 1,000 births registered.	Rate per 1,000 estimated population.
1916	553	5·9%	58·6	1·24
1917	576	7·6%	76·1	1·31
1918	528	7·1%	71·4	1·23
1919	567	7·5%	75·0	1·32
1920	631	5·6%	56·2	1·41
1921	565	5·6%	55·7	1·21

## BIRTHS AND BIRTH RATE IN WARDS.

MUNICIPAL WARD.	Estimated Population middle of 1921.	Nett births.	Birth- rate.	Illegiti- mate births.	Percentage of illegitimate births to total births.
Central .. ..	12,737	291	22·85	26	8·9
North .. ..	43,074	852	19·78	48	5·6
North-East .. ..	36,584	890	24·33	52	5·8
New Ward* .. ..	7,935	110	13·86	3	2·7
East .. ..	35,810	1,000	27·93	39	3·9
South .. ..	13,015	405	31·12	34	8·4
East Hunslet .. ..	34,656	863	24·90	48	5·6
West Hunslet .. ..	36,709	701	19·10	21	3·0
Middleton .. ..	1,170	29	24·79	..	..
Holbeck .. ..	29,899	748	25·02	40	5·3
Mill Hill .. ..	5,373	90	16·75	11	12·2
West .. ..	22,375	506	22·61	44	8·7
North-West .. ..	32,025	616	19·23	44	7·1
Brunswick .. ..	24,315	464	19·08	30	6·5
New Wortley .. ..	18,063	455	25·19	27	5·9
Armley and Wortley	37,365	745	19·94	33	4·4
Bramley .. ..	23,857	447	18·74	17	3·8
Headingley .. ..	50,538	932	18·44	48	5·2
City .. ..	465,500	10,144	21·79	565	5·6

\* Roundhay, Seacroft, Shadwell, and Crossgates.

**Deaths.**—The total number of deaths registered during 1921 was 6,424, from which must be deducted 408 deaths of individuals belonging to outside areas, and to which must be added 269 deaths of individuals belonging to the City but temporarily resident outside, giving a net total of 6,285. Of the 6,285 deaths 3,274 were males and 3,011 females. The death rate was 13·5 as compared with 14·7 for the previous year and an average of 16·5 for the previous five years. This is the lowest death-rate which has ever been recorded for the City, being ·8 per thousand below the previous lowest in 1912, which was 14·3.

The deaths and death-rates for the four quarters of the year were as follows :—

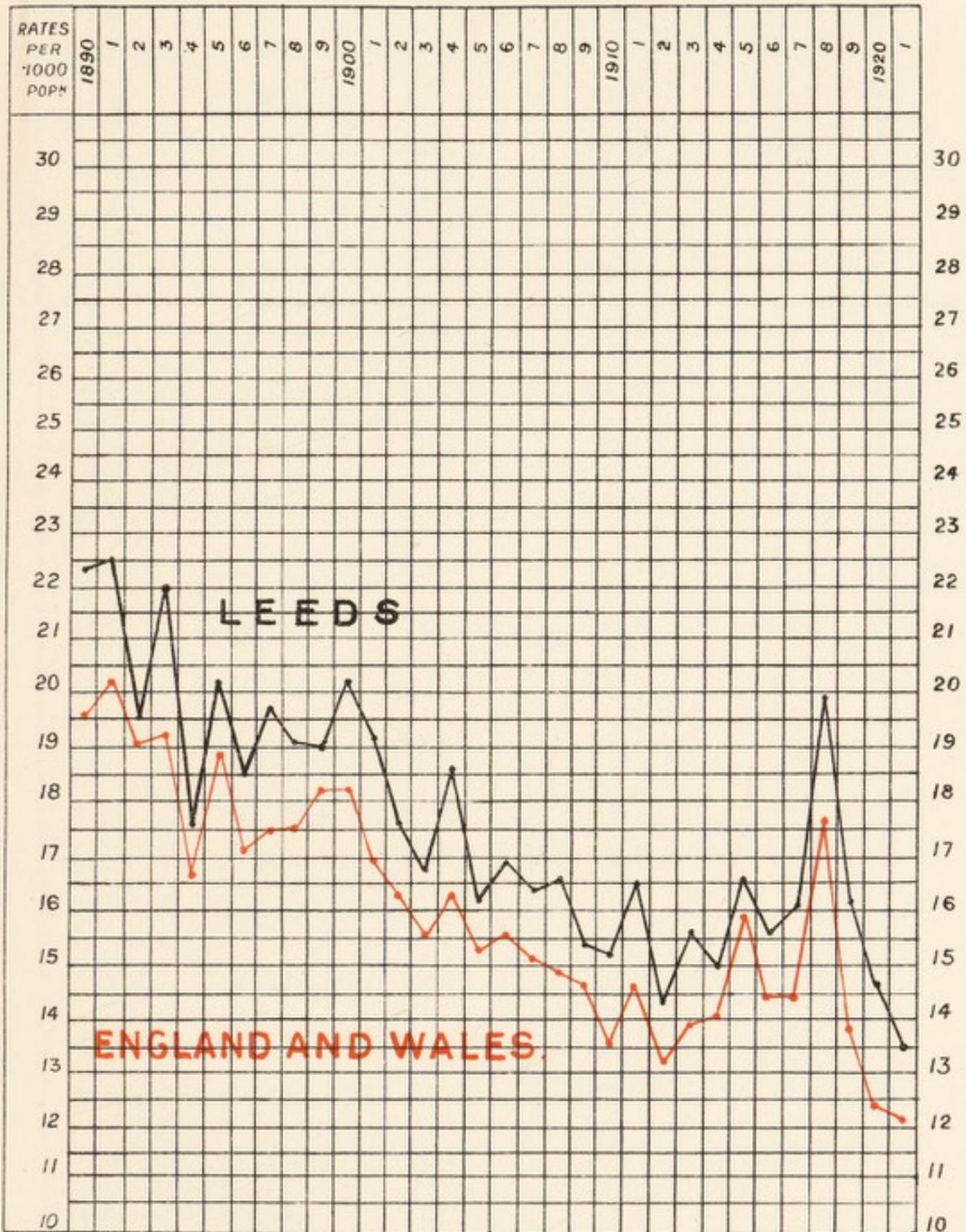
1921.	I.	II.	III.	IV.
Deaths .. ..	1,664	1,448	1,324	1,849
Death-rate ..	14·5	12·5	11·3	15·8

It will be observed that the rates in the second and third quarters were phenomenally low whilst the fourth shows in comparison quite a marked increase.

*Causes of Death.*—The principal causes of death, were in order of numerical importance, heart disease, pneumonia, bronchitis, cancer, phthisis, nephritis, diarrhœa and enteritis. (See page 17.)

In previous reports I have called attention to the heavy toll of life exacted by respiratory complaints, including phthisis and influenza. In 1920 this group was responsible for 31·3 per cent. of the total deaths and last year the figure was 29·9, a reduction of 1·4 per cent. This reduction was undoubtedly due to the exceptional fine weather experienced during the year, as well as to the fact that the miners' strike during the second quarter robbed the atmosphere of the smoke and other impurities usually present in it in periods of industrial activity. All are agreed that never has the City experienced such delightfully fine climatic conditions as it did during the time of the strike, and the beneficent effect on health is demonstrated by a comparison between the actual number of deaths from chest complaints in the second quarter

# DEATH RATE, 1890 - 1921.





## ANNUAL DEATHS AND DEATH RATE.

Year.	Population.	Nett deaths.	Death-rate LEEDS.	Death-rate England and Wales.
1901	429,383	8,204	19·2	16·9
1902	431,043	7,699	17·6	16·3
1903	432,703	7,263	16·8	15·5
1904	434,363	8,039	18·6	16·3
1905	436,023	7,047	16·2	15·3
1906	437,683	7,350	16·9	15·5
1907	439,343	7,167	16·4	15·1
1908	441,003	7,430	16·6	14·8
1909	442,663	6,806	15·4	14·6
1910	444,323	6,711	15·2	13·5
1911	445,983	7,331	16·5	14·6
1912	447,746	6,396	14·3	13·3
1913	457,295	7,237	15·6	13·8
1914	459,260	6,885	15·0	14·0
1915	459,260	7,609	16·6	15·7
1916	446,349	6,946	15·6	14·4
1917	438,254	7,052	16·1	14·4
1918	427,589	8,529	19·9	17·6
1919	430,834	6,992	16·2	13·7
1920	448,913	6,591	14·7	12·4
1921	465,500	6,285	13·5	12·1

## DEATHS AND DEATH RATE IN WARDS.

MUNICIPAL WARD.	Estimated population middle of 1921.	Nett deaths.	Death-rate.
Central .. ..	12,737	213	16·72
North .. ..	43,074	523	12·14
North-East .. ..	36,584	543	14·84
New Ward* .. ..	7,935	76	9·58
East.. ..	35,810	548	15·30
South .. ..	13,015	258	19·82
East Hunslet .. ..	34,656	432	12·47
West Hunslet .. ..	36,709	462	12·59
Middleton .. ..	1,170	16	13·68
Holbeck .. ..	29,899	441	14·75
Mill Hill .. ..	5,373	63	11·73
West .. ..	22,375	398	17·79
North-West .. ..	32,025	407	12·71
Brunswick .. ..	24,315	283	11·64
New Wortley .. ..	18,063	230	12·73
Armley and Wortley ..	37,365	468	12·53
Bramley .. ..	23,857	291	12·20
Headingley.. ..	50,538	633	12·53
<b>City.. ..</b>	<b>465,500</b>	<b>6,285</b>	<b>13·50</b>

\* Roundhay, Seacroft, Shadwell and Crossgates.

## PRINCIPAL CAUSES OF DEATH.

Death rate.	DISEASES.	No. of deaths in 1921 (nett).	Increase or decrease compared with 1920.
0.00	Enteric Fever .. .. .	2	- 2
..	Smallpox .. .. .	..	..
0.01	Measles .. .. .	5	- 143
0.03	Scarlet Fever .. .. .	14	- 3
0.15	Whooping Cough .. .. .	72	- 28
0.08	Diphtheria and Croup .. .. .	38	- 26
0.35	Influenza .. .. .	164	- 6
0.02	Erysipelas .. .. .	10	- 5
1.11	Phthisis (pulmonary tuberculosis) .. .. .	519	- 33
0.08	Tub. Meng. and Acute Hydroceph. .. .. .	39	- 18
0.18	Other Tuberculous Diseases .. .. .	83	- 6
1.19	Cancer, Malignant Disease .. .. .	554	+ 62
0.07	Rheumatic Fever .. .. .	34	+ 3
0.15	Meningitis .. .. .	72	- 26
1.37	Heart Disease .. .. .	638	+ 102
1.19	Bronchitis .. .. .	556	- 69
1.21	Pneumonia (all forms) .. .. .	562	- 60
0.17	Other diseases of respiratory organs .. .. .	78	- 18
0.47	Diarrhœa and Enteritis .. .. .	218	+ 57
0.05	Appendicitis and Typhlitis .. .. .	25	+ 1
0.04	Cirrhosis of Liver .. .. .	17	- +
0.02	Alcoholism .. .. .	7	+ 6
0.50	Nephritis and Bright's Disease .. .. .	235	+ 19
0.02	Puerperal Fever .. .. .	8	- 21
0.06	Other accidents and diseases of Pregnancy and Parturition .. .. .	30	+ 2
0.77	Congenital Debility and Malformation including Premature Birth .. .. .	357	- 78
0.43	Violent deaths, excluding Suicide .. .. .	200	- +
0.07	Suicides .. .. .	33	- 8
3.67	Other Defined Diseases .. .. .	1,710	- 1
0.01	Diseases ill-defined or unknown .. .. .	5	- 7
13.50		6,285	- 306

of 1921 with those for the same quarter in the previous ten years as shown in the following table:—

DEATHS FROM RESPIRATORY DISEASES, PHTHISIS AND INFLUENZA DURING THE SECOND QUARTER OF THE YEARS 1911-1921.

YEAR.	Respiratory diseases.	Phthisis.	Influenza.	Total.
1911	280	140	12	432
1912	272	161	7	440
1913	337	143	23	503
1914	310	148	11	469
1915	402	143	28	573
1916	322	182	13	517
1917	349	190	12	551
1918	294	171	26	491
1919	252	126	57	435
1920	284	134	31	449
1921	245	130	22	397

Touching on the causes of death one cannot help but feel—and this has been pointed out in other reports—that the death-rates from pneumonia and bronchitis are excessive. Both diseases are preventable and both diseases are usually looked upon as being curable and yet we fail both to prevent and to cure. The reason for this I am convinced is the very unsatisfactory conditions obtaining in many of the houses of the people which are not only directly conducive to the propagation of disease but make efficient nursing almost impossible. The great need of the City is for further hospital accommodation to permit of cases of pneumonia and broncho-pneumonia being removed at once from insanitary homes to an environment more suitable for their treatment. The meagre accommodation now available for medical cases (there are only 146 beds including 33 cots reserved at the Leeds General Infirmary

for medical cases of all kinds) could be greatly enhanced if the Poor Law Infirmaries could be induced to accept non-pauper cases with or without a fee, and without having to pass through the hands of the Relieving Officer, or in other words if the infirmaries could be transformed into general hospitals. There are certain difficulties in the way of the attainment of this object but they are not insurmountable and, if tackled seriously, would soon disappear.

It will be noted that the number of deaths attributed to diarrhoea and enteritis is considerably in excess of that recorded in any of the previous four years. This is accounted for by the fact that last summer was hotter than any previous summer for the last nine years, and as this is a disease which is influenced by temperature a certain increase in the mortality from it was to be expected. More is said concerning this disease in another part of the report.

With regard to such diseases as heart disease and cancer one can only deplore the heavy loss to the community occasioned by them year by year and bewail one's inability to effect any reduction or improvement. As far as the year under review is concerned there is perhaps some consolation to be found in the fact that a large proportion of the deaths took place in the oldest age group, that is in persons sixty-five years and upwards. But, whilst that is so, one cannot forget that quite 54 per cent. were of persons under sixty-five. The number of cases of women dying in childbirth was 38 of which 8 (or 21 per cent.) were due to puerperal sepsis whilst 30 (or 79 per cent.) were attributable to other diseases and accidents in connection with pregnancy and parturition. The deaths due to infectious disease and of infants under one year of age are given on pages 45 to 59 and 88 respectively.

*Deaths in Age Groups.*—In 1921 the majority of the deaths took place in the older age groups, that is forty-five to sixty-five (24.9 per cent.), and sixty-five upwards (32.7 per cent.). This is as it should be and one hopes that the number of deaths in the younger groups will continue to diminish. It is unfortunate but, I am afraid, to a large extent inevitable, that so many persons should die in the prime of life that is between forty-five and sixty-five just at the period of maximum usefulness to the community. The number of deaths in the first age group that is from nothing to one year, was 997 (15.9 per cent.) which is equal to an infant mortality rate of 98. For further particulars of infant mortality see pages 85 to 93.

## DEATHS IN AGE GROUPS (NETT), 1911-21.

Together with the percentage of the total deaths, represented by each group  
(in italics)

Year.	Under 1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
1911	1,679 <i>22.9%</i>	483 <i>6.6%</i>	380 <i>5.2%</i>	309 <i>4.2%</i>	303 <i>4.1%</i>	903 <i>12.3%</i>	1,589 <i>21.7%</i>	1,685 <i>23.0%</i>	7,331
1912	1,051 <i>16.4%</i>	311 <i>4.9%</i>	291 <i>4.5%</i>	286 <i>4.5%</i>	303 <i>4.7%</i>	906 <i>14.2%</i>	1,502 <i>23.5%</i>	1,746 <i>27.3%</i>	6,396
1913	1,469 <i>20.3%</i>	419 <i>5.8%</i>	344 <i>4.8%</i>	265 <i>3.7%</i>	292 <i>4.0%</i>	946 <i>13.1%</i>	1,684 <i>23.3%</i>	1,818 <i>25.1%</i>	7,237
1914	1,324 <i>19.2%</i>	469 <i>6.8%</i>	358 <i>5.2%</i>	269 <i>3.9%</i>	276 <i>4.0%</i>	923 <i>13.4%</i>	1,605 <i>23.3%</i>	1,661 <i>24.1%</i>	6,885
1915	1,253 <i>16.5%</i>	439 <i>5.8%</i>	389 <i>5.1%</i>	260 <i>3.4%</i>	318 <i>4.2%</i>	965 <i>12.7%</i>	1,850 <i>24.3%</i>	2,135 <i>28.0%</i>	7,609
1916	1,216 <i>17.5%</i>	391 <i>5.6%</i>	285 <i>4.1%</i>	240 <i>3.5%</i>	287 <i>4.1%</i>	885 <i>12.7%</i>	1,683 <i>24.2%</i>	1,959 <i>28.2%</i>	6,946
1917	1,023 <i>14.5%</i>	400 <i>5.7%</i>	422 <i>6.0%</i>	331 <i>4.7%</i>	302 <i>4.3%</i>	835 <i>11.8%</i>	1,734 <i>24.6%</i>	2,005 <i>28.4%</i>	7,052
1918	984 <i>11.5%</i>	474 <i>5.6%</i>	743 <i>8.7%</i>	514 <i>6.0%</i>	579 <i>6.8%</i>	1,214 <i>14.2%</i>	2,007 <i>23.5%</i>	2,014 <i>23.6%</i>	8,529
1919	899 <i>12.9%</i>	239 <i>3.3%</i>	298 <i>4.3%</i>	299 <i>4.3%</i>	344 <i>4.9%</i>	957 <i>13.7%</i>	1,780 <i>25.4%</i>	2,176 <i>31.2%</i>	6,992
1920	1,232 <i>18.7%</i>	255 <i>3.9%</i>	283 <i>4.3%</i>	283 <i>4.3%</i>	291 <i>4.4%</i>	844 <i>12.8%</i>	1,572 <i>23.9%</i>	1,831 <i>27.8%</i>	6,591
1921	997 <i>15.9%</i>	278 <i>4.4%</i>	130 <i>2.1%</i>	202 <i>3.2%</i>	297 <i>4.7%</i>	765 <i>12.2%</i>	1,562 <i>24.9%</i>	2,054 <i>32.7%</i>	6,285

## Comparative Statistics of the larger English Cities, 1921.

	RATE PER 1,000 POPULATION.					DEATH RATE PER 1,000 BIRTHS.	
	Population.	Birth Rate.	Death Rate.	Phthisis. Death Rate.	Other Tuberculosis. Rate.	Deaths under One Year.	Diarrhoea and Enteritis under 2.
London .. ..	4,476,586	22·3	12·3	1·05	0·20	80	21·3
Birmingham ..	919,683	24·1	11·3	0·97	0·16	83	16·6
Liverpool ..	817,000	26·8	14·3	1·3	0·3	107	31·0
Manchester ..	744,000	23·9	13·6	1·30	0·34	97	21·4
Sheffield ..	519,239	23·8	12·5	1·00	0·24	99	19·2
<b>Leeds .. ..</b>	<b>465,500</b>	<b>21·8</b>	<b>13·5</b>	<b>1·11</b>	<b>0·26</b>	<b>98</b>	<b>18·1</b>
Bristol .. ..	381,700	22·0	11·4	0·94	0·01	68	11·1
Hull .. ..	291,800	25·8	13·0	1·06	0·35	93	24·1
Bradford ..	291,100	19·6	13·7	0·92	0·24	107	9·8
Newcastle ..	278,400	26·2	14·1	1·23	0·39	96	16·5
Nottingham ..	266,400	23·0	13·1	0·87	0·27	102	17·2

## SANITARY CIRCUMSTANCES.

**Water.**—The year 1921 was remarkable for the very low rainfall, the total for the year in this district being 18·86 inches. In consequence, the water in the reservoirs was reduced to a very low level, and for a time during the third quarter of the year, the fear existed that there would not be sufficient to supply the needs of the community. The advent of rain in the fourth quarter brought welcome relief and eased the situation, rendering it unnecessary to institute measures for the conservation of such supplies as remained, as had to be done in many other parts of the Country.

The work in connection with the Leighton reservoir has continued to progress during the year, and has found employment for a goodly number of men out of work by reason of trade stagnation.

Eight wells were abolished during the year and the houses supplied by them connected up to the City water mains.

**Rivers and Streams.**—The long spell of drought experienced during the year reduced the amount of water in the River Aire to an abnormally low level, and the consequent stagnation caused the bed of the river to become very offensive, though it was the general opinion that for the small amount of water the offence was not so marked as it had been in former hot summers. The discharge of sewage effluents, trade effluents, and other filth into the river, not only within the City but outside its boundaries and before it reaches the City, should receive the earnest attention of all the authorities through whose territory it passes, because it is only by the strict observance of the law for the prevention of pollution of rivers and streams that any permanent improvement can be effected.

**Drainage and Sewerage.**—The work in connection with the new sewerage works at Knostrop has advanced rapidly during the year. The new high level outfall sewer has been completed and several of the sedimentation tanks and bacteria beds are nearing completion. New branch sewers have been laid in the following districts of the City :—Bramley, Stanningley, Farnley, Middleton and Crossgates, and the completion of these has enabled a large number of privy middens and cesspools in these areas to be abolished.

**Closet Accommodation.**—During the year 151 privy middens, 27 pail closets and 73 trough water closets were converted into modern pedestal water closets. The position with regard to these various types of sanitary conveniences in the City is now 900 privy middens, 128 pail closets, 9,521 trough closets, and 89,594 water closets. The cesspools abolished and houses joined up to the sewer during the year numbered 23, chiefly in the Shadwell district.

**Scavenging.**—The amount of household refuse including nightsoil collected during the year was 168,571 tons, of which 68,410 tons were dealt with at the destructors, 99,991 tons in tips and for agricultural purposes, and 170 tons sold as manure to farmers.

**Ashpits and Ashbins.**—The policy of the Department whenever and wherever possible is to abolish the ashpit and substitute the metal ashbin. At the end of the year there were 13,821 ashpits and 54,240 ashbins in the City, or a ratio of approximately of one to four. Throughout the year, strenuous endeavours have been made to improve the cleansing and scavenging of the City, and these attempts have undoubtedly been attended with a gratifying measure of success. Wherever owners of property have failed on service of a statutory notice to supply proper ashbins for their property, these have been supplied by the Corporation and the owners charged up with the cost of the same. In this way, 602 new ashbins have been provided, some to take the place of dilapidated and worn out bins and others to replace ashpits abolished. A word should be said about the ashbin as a receptacle for refuse. The life of an ashbin depends (*a*) on the quality of the bin, and (*b*) on the way in which it is treated. If householders would be more careful in their treatment of them, the life of their bins would be very much longer. The depositing of wet, decomposing refuse into an ashbin intended only for dry ashes causes it to deteriorate very rapidly and makes it offensive, besides providing a breeding ground for flies. At the same time it must be admitted that those responsible for the emptying are often merciless in the handling of the bins and cause unnecessary damage by the careless methods they adopt.

I think the time has arrived for a complete revision of the practice with regard to the supply of ashbins. Property owners are dissatisfied with the present system which places the whole of the cost of supplying new and replacing dilapidated bins on their shoulders. The question arises should not the Corporation relieve them of part of the burden. Manifestly, the Corporation as the Cleansing Authority, has some responsibility for the upkeep of the receptacles, inasmuch as its servants have the handling of them and are responsible for a good deal of the damage which brings about their ultimate destruction. The problem is likely to grow more difficult with the passage of time, and probably the best solution would be for the Corporation to provide the bins and charge the owner with a share of the cost.

Speaking generally there was a marked improvement in the cleansing of the City during the year, which it is hoped will

be maintained as the public health depends so much on the cleanliness of ashpits, ashbins, courts, yards and streets, particularly during the fly season.

### **SANITARY ADMINISTRATION.**

**Staff.**—The inspectorial staff of the Public Health Department was increased during the year by the appointment of an additional probationer sanitary inspector. It is perhaps not quite correct to put it thus, because prior to the war the staff was numerically stronger than it is now, so that the addition was really a replacement. Even now the staff is inadequate for the needs of a City the size of Leeds, that is if the work is to be done efficiently and kept up-to-date. The minimum should be 16 district sanitary inspectors and 4 probationers, making 20 in all, which would provide a margin of 4 probationers who would be competent to give assistance in districts where the work is heavy or to relieve in cases of sickness or during holidays.

**Sanitary Inspection of the District.**—The year 1921 was a busy one as far as general sanitary work is concerned, and I have little hesitation in saying that probably never at any other period of its history have the sanitary circumstances of the City been so good as they were at the close of the year. Even in the oldest and most crowded parts the number of grave sanitary defects were reduced to an almost negligible quantity. It must of course be recognised that it is quite impossible to make the sanitation of an area, which is itself insanitary, good, but probably the thing most to be deplored is that a district where the conditions are evil has a bad influence on the surrounding districts and tends to drag them down to its own level. This is one of the strongest reasons for a rapid and effective treatment of slum areas. It is undeniable that a great many of the sanitary defects which exist and have to be attended to, are the direct consequence of carelessness, indifference, and in some cases wanton destructiveness on the part of the tenants of house property, and most people will agree that much of the trouble caused between landlord and tenant and between the owners of property and the public health authority would be avoided if tenants could be induced to treat their houses with some degree of circumspection.

From a departmental point of view the Increase of Rent and Mortgage Interest (Restrictions) Act, 1920 has certainly been helpful because it has enabled many serious defects to be dealt with which otherwise would have remained untouched because of the lack of powers to deal with them. Such things as dilapidated ovens and set-pots, broken window-cords, fractured hot-water boilers, and certain other structural defects which would have generally been excluded from the range of the Public Health Acts have been successfully remedied. The certificates issued under the Act have also included such gross public health nuisances as defective roofs and walls giving rise to serious dampness in the interior of dwelling-houses. Incidentally the prerogative of the Court to suspend increased rent has resulted in very necessary work being done with greater expedition than it would have been had such an Act not existed.

Details of the sanitary work is given in tables which appear on pages 26 and 27.

*Notices.*—The number of preliminary notices served during the year was 11,820 of which 8,015 were complied with without further notice, and statutory notices 3,805 of which 3,026 were complied with, leaving 779 outstanding at the end of the year.

Since the Increase of Rent and Mortgage Interest (Restrictions) Act, 1920 came into operation (July 2nd, 1920) up to the end of December, 1921, 462 applications have been received and 419 certificates and 2 reports have been issued. During the year 1921, 419 applications were received and 378 certificates and 2 reports issued.

*Legal Proceedings.*—In one case legal proceedings were instituted for failure to carry out the requirements of the Public Health Acts, whilst in several others, compliance with the terms of the notice was effected by threats of legal proceedings.

**Underground Sleeping Rooms.**—The local bye-laws in connection with underground sleeping rooms are at present in process of revision. This has been made necessary by the practice which sprang up during the war of converting large terrace houses into flats and sub-letting the basements, which in many instances are underground, or partially so, as separate houses. These basements

## SANITARY INSPECTION OF DISTRICTS.

	NORTH.	SOUTH.	City Total.
Houses completely examined for—			
Infectious disease .. ..	1,390	877	2,267
Alleged nuisances .. ..	91	105	196
House to house work ..	94	128	222
Premises examined only as to—			
Occupants .. .. .	27	40	67
Buildings and offices ..	4,399	8,672	13,071
Drainage .. .. .	342	424	766
Nuisances found in above or other houses—			
Dirty houses .. .. .	423	326	749
Overcrowded houses .. ..	32	34	66
Dampness or dilapidation ..	2,810	3,165	5,975
Drain or closet defects ..	4,098	4,538	8,638
Defective ashpits or bins ..	4,003	3,508	7,511
Other nuisances .. .. .	2,769	1,900	4,669
Outside nuisances found (gullies, etc.) .. .. .	1,751	1,782	3,533
Total nuisances found ..	15,886	15,253	31,139
Additional visits paid to houses for—			
Infectious disease .. ..	1,505	1,474	2,979
Completion of reports ..	1,606	2,179	3,785
To inspect work in progress	2,275	2,039	4,314
Other causes .. .. .	21,378	10,614	31,992
Drains tested .. .. .	2,183	1,935	4,118
Drains found defective .. ..	116	157	323

## SANITARY WORKS CARRIED OUT DURING 1921.

NATURE OF WORK.	NORTH.	SOUTH.	City Total.
Houses cleansed .. .. .	197	162	359
Overcrowded houses dealt with	48	31	79
Defective spouting, &c., repaired	2,389	2,136	4,525
Urinals cleansed or repaired ..	34	46	80
Privies or ash places repaired ..	249	186	435
Privies or pail closets converted	106	72	178
Waterclosets erected .. .. .	59	52	111
New dry ashpits .. .. .	..	..	..
Ashbins provided .. .. .	3,167	2,290	5,457
Trough closets converted into W.C.'s .. .. .	62	11	73
Closets cleansed (limewashed), etc.	395	140	535
Drainage works carried out ..	681	502	1,183
Cesspools filled up .. .. .	22	1	23
Public or private wells abolished	8	..	8
Houses connected to water mains	8	3	11
Trough and water closets repaired	885	823	1,708
Other house nuisances remedied	3,853	2,815	6,668
Total houses for which above work was done .. .. .	13,493	10,798	24,291
Offensive accumulations removed and stopped gullies cleansed	928	989	1,917
Pollution of streams remedied ..	2	2	4
Other non-domestic nuisances re- moved .. .. .	101	118	219
Total nuisances abated .. .. .	13,202	10,389	23,591

are usually occupied by the caretaker of the premises and inasmuch as many of the caretakers have families, the necessity for the local authority having some control over the occupation of such places will be obvious.

**Common Lodging Houses, &c.**—Particulars relating to common lodging-houses, houses let in lodgings, canal boats, vans, tents and sheds appear below.

### LODGING-HOUSES, CANAL BOATS, VANS, etc.

#### Common Lodging-Houses.

Number registered—

Men's	26	Beds available	1,417	}	..	..	28
Women's	2	„	101				
Routine visits paid to C.L. Houses	..	..	..	..	..	..	377
Visits as to drain tests and abatements	..	..	..	..	..	..	99
							—
Total visits. . . . .	..	..	..	..	..	..	476
							—

Nuisances found and abated:—

				FOUND.		ABATED.
Dirty closets	..	..	..	12	..	12
Dirty rooms	..	..	..	25	..	25
Dirty bedding	..	..	..	308	..	308
Dilapidated bedsteads	..	..	..	256	..	256
Offensive bedroom vessels	..	..	..	125	..	125
Defective or stopped drains	..	..	..	62	..	62
Defective roofs or eaves spouts	..	..	..	16	..	16
Other nuisances	..	..	..	82	..	48
				—		—
Total	..	..	..	886	..	852
				—		—

In addition to the Common Lodging-Houses enumerated on the table there are three unregistered lodging-houses, two for men and one for women, which are under the control of the Salvation Army and the Church Army. These possess altogether 310 beds for men and 50 for women, and are regularly inspected.

**Houses Let in Lodgings.**

	HOUSES.	ROOMS.
Registered during 1921, let as furnished rooms	—	—
Removed from Register .. .. .	11	22
On register at end of 1921 .. .. .	22	44
Houses let in lodgings visited though not registered .. .. .	611	1,837
Houses examined (new lodgings) .. .. .	83	289
Drain testings (12 defects found) ..	164	
Re-testings on completion of work	12	
Visits for Abatement .. .. .	632	
„ Infectious disease .. .. .	—	
„ Additional inspection ..	3,776	

Nuisances—	FOUND.	ABATED.
Dirty or bad bedding .. .. .	45	45
Dirty rooms .. .. .	160	160
Overcrowding .. .. .	32	32
Dirty closets .. .. .	25	25
Other nuisances .. .. .	458	461
Structural defects .. .. .	119	116

At the request of the University Authorities all lodgings are inspected by the Public Health staff before the houses are placed on the register of approved lodgings for the use of students.

New lodgings inspected during 1921 52 with 172 rooms to let.

Houses previously examined, inspected 88, with 308 rooms.

Total visits to these houses 154

**Houses converted into Flats.**—The number of houses examined which have been converted into flats was 50, and the number of flats 171. The number of visits paid to these flats was 154. The nuisances found are included under houses let in lodgings.

**Canal Boats.**

Registered during the year 1921 .. .. .	12
Re-registered „ „ .. .. .	4
Transferred to fresh owners .. .. .	2
Struck off register (on revising register) .. .. .	9
Remaining on register at end of year .. .. .	158
Visits of inspection to wharves and locks .. .. .	800
Complete inspections of boats (208 boats) .. .. .	601
Cases of infectious disease .. .. .	—
Cases of overcrowding .. .. .	5
Dirty cabins .. .. .	1
Absence of registration certificate .. .. .	8
Boats not marked with registered number .. .. .	11
„ not properly ventilated .. .. .	31
„ requiring painting or repairing .. .. .	14
„ requiring water casks .. .. .	6

**Vans and Tents.**

Visits to 215 vans during 1921 .. .. .	350
„ „ 20 tents „ „ .. .. .	25
„ „ cellar dwellings or suspected dwellings .. .. .	179
„ „ 23 camping grounds .. .. .	150
Ice cream carts and sheds inspected (street vendors) .. .. .	588

**Nuisances—**

	FOUND.	ABATED.
Dirty camping grounds .. .. .	2	2
Dirty vans .. .. .	3	3
Camping grounds with no accommo- dation for van dwellers .. .. .	4	4
Cellar dwellings closed .. .. .	12	12
Dirty cellar dwellings .. .. .	3	3
Dirty and unsuitable ice cream sheds .. .. .	5	5
Other nuisances found in ice cream sheds .. .. .	5	5
Ice cream carts not marked .. .. .	14	14

**Offensive Trades.**—The total number of offensive trades in the City is 28, which includes 13 fat boilers, 4 soap boilers, 7 tripe boilers, 2 fellmongers, 1 glue maker and 1 gut scraper.

Formerly little heed was paid to the situation of businesses of an offensive nature and they were established practically all over the City frequently in most unsuitable places. Now however, an attempt is being made to restrict them to one particular side of the City. In this way it is hoped to minimise the nuisance arising from such trades and at the same time make supervision easier and more efficient.

A complete register of these trades has now been made which gives full particulars of the trade, the owner or occupier, structure of the premises, provision for storage of raw material, method of dealing with the fumes, disposal of waste, etc., which will be of great assistance in maintaining effective control over them. Notices were served on two firms of fat boilers for breaches of the law relating to nuisances in connection with the conduct of offensive trades in consequence of which both gave up business whilst a third was compelled to introduce more up-to-date plant and to improve the method of carrying on his business so as to obviate further nuisance.

**Factories and Workshops.**—On pages 32 and 33 will be found a complete summary of the work done under the Factories and Workshops Act and in a separate table the report on the inspection of bakehouses.

#### BAKEHOUSES.

OVERGROUND.		UNDERGROUND.		Total visits to all.
Employees Workshop beyond family.	Domestic bake-houses.	Employees Workshop beyond family.	Domestic bake-houses.	
559 in 201	400	43 in 21	11	3,222



## 3. 4. 5.—OTHER MATTERS.

	Number of	
	Lists.	Outworkers.
<b>Homework :—</b>		
<i>List of Outworkers (S. 107) :—</i>		
(No homeworkers on our register except amongst those engaged in making wearing apparel)*	.. ..	C.   W.
Lists received twice in the year .. ..	406	792   844
"    once in the year .. ..	74	52   90
Addresses of ) received from other Authorities ..		120
outworkers ) forwarded to other Authorities .. ..		11
Notices to occupiers as to keeping or sending lists ..		637
Prosecutions.. .. ..		..
Inspection of Homeworkers' premises .. ..		289
<i>Homework in unwholesome premises :—</i>		
Instances .. .. ..		62
Notices .. .. ..		62
Prosecutions.. .. ..		..
<i>Homework in infected premises :—</i>		
Instances .. .. ..		4†
Orders made (S. 110) .. .. ..		4
Prosecutions (SS. 109, 110) .. .. ..		..
[Infectious cases removed, disinfection carried out under ordinary powers.]		
<b>Workshops on the Register (S. 131) at the end of year :—</b>		
Ordinary (174 trades) .. .. ..		1,228
Domestic (19 trades) .. .. ..		70
Bakehouses on register as workshops .. ..		222
Do.    domestic .. .. ..		411
<b>Total number of workshops on Register .. ..</b>		<b>1,931</b>
<b>Matters notified to H.M. Inspectors of Factories :—</b>		
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 .. Reports (of action taken) sent to H.M. Inspectors..	74
Other .. .. ..		181
Underground Bakehouses (S. 101) :—		
Certificates granted during the year .. ..		..
In use at the end of 1921 .. .. ..		32

† Two were for patients suffering from diphtheria and two from erysipelas.

\* Two of the above lists (containing three workpeople) received twice a year—home workers engaged in paper bag making. All others in wearing apparel.

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

OTHER VISITS PAID BY MALE WORKSHOPS INSPECTORS  
ON ACCOUNT OF

	Factories.	Workshops.	Workplaces.
Non-abatements .. ..	264	438	6
Drain Inspection .. ..	20	72	2
Drains tested .. .. .	14	80	..
Disease enquiries .. ..	4	10	..
River pollution .. .. .	2	3	..
Complaints .. .. .	13	16	..
Measurement of workrooms ..	..	131	..
Bakehouses { Underground ..	..	..	..
{ Above ground ..	10	12	..
Other causes .. .. .	58	308	..
Appointments .. .. .	16	33	1
TOTAL .. .. .	401	1,103	9

WORK DONE.

	Factories.	Workshops.	Workplaces.
River pollution abated ..	2	2	..
Nuisances abated .. ..	161	359	2
TOTAL .. .. .	163	361	2

**Work of Women Inspectors.**—Two women sanitary inspectors are constantly engaged in visiting the homes of outworkers, in carrying out investigations into the outbreak of infectious disease in factories, workshops and schools and attending to complaints received from the factory inspectors or other sources as to sanitary defects affecting the health of the workers in factories and workshops.

The following is a summary of their work.

*Infectious Diseases.*—The following visits were made :—

To schools (on account of 872 cases)..	1,345
To absent pupils .. .. .	186
To factories (86) .. .. .	142
To workshops (2) .. .. .	4
To workplaces, including restaurants (21)	34
To absent employees .. .. .	9

*Outworkers.*—Visits paid to the homes of outworkers numbered 3,800. Of these, 289 were first visits and the remainder, 3,511 were additional visits for special reasons. In addition to these, 509 visits were paid to the premises of employers of outworkers. There were 62 sanitary defects found, 58 of which were rectified on representation from the Public Health Department.

*Factories and Workshops.*—Part of the work done by the women inspectors under this heading is included in the table on pages 32 and 33.

In addition to that appearing in the table the following visits were paid

Factories on receipt of complaint ..	213
Workshops (routine and on complaint)	629
Workplaces and restaurants do. ..	202
Houses on receipt of complaint ..	28
Various .. .. .	87
	<hr/>
Total .. .. .	1,159
	<hr/> <hr/>

Nuisances found 183, abated 164.

**Smoke Abatement.**—The year witnessed further important developments in this section of the Department's work. In the first place, the Health Committee decided to resolve itself into a Smoke Abatement Committee with power to co-opt such persons from the general public as are interested in or possess special knowledge or experience of the subject. The object of this Committee is to enlist the sympathy and help of all classes of the community, but particularly manufacturers in bringing about

the much-needed cleansing of the atmosphere. The Committee has met once and agreed to institute a special course of instruction in fuel economy and furnace management for stokers and firemen next winter. It is hoped in this way to give the stoker a more intelligent interest in his work and to rouse within him a real desire to obtain greater efficiency and less waste in the shape of smoke and other unconsumed products of combustion from the fuel he handles.

It was also decided during the year to establish 4 smoke stations with the object in view of ascertaining the amount of soot and grit deposited in the four districts of the City served by the stations. The stations have been selected and the gauges fixed in the following situations:—Park Square ; Powell Street, Hunslet ; The Waterworks, Headingley, and All Saints' Church, York Road.

But the success of any effort which the Committee may make for the purification of the air of the City depends entirely on the backing which it gets from the public. After all, it is for the citizens to say whether they will have the City clean or dirty, bright or gloomy, healthy or unhealthy. I am convinced that if they will, without any pressure from the Government, they can make Leeds air clean.

	1921.	1920.
Complaints received .. .. .	26	20
Furnaces inspected .. .. .	5,524	9,570
Observation of chimneys (1 hour each) ..	3,286	4,392
Average duration of dense smoke per observation of one hour .. .. .	0 min. 53 secs.	1 min. 15 secs.
Number of chimneys found emitting dense smoke three minutes per hour .. .. .	281	544
Notices served on manufacturers .. .. .	11	18
Notices served on stokers .. .. .	7	54
Prosecutions .. .. .	none	none
Smoke prevention appliances adapted to furnaces .. .. .	21	50
Chimneys newly erected .. .. .	10	12
Furnaces in connection with new chimneys..	22	22

**Rat Repression.**—There is nothing notable to record in connection with this section of the work during 1921. The experience of the last two years has revealed certain weaknesses in the Rats and Mice Destruction Act, of 1919. The chief one of these is that the onus of making premises rat-proof is laid upon the occupier instead of, as it ought to be, upon the owner. There is no doubt that in some cases the insecurity of the premises, as far as rat invasion is concerned, is due to neglect by the tenant, but in by far the greater number it is the structure of the premises which is at fault. In my opinion all premises should be made and maintained rat-proof from the beginning. Only when the Act is amended and the onus of keeping premises in good repair transferred from the occupier to the owner will the best results be attainable. At present the occupier goes to the trouble and cost, voluntarily or at the instigation of the Health Department, of ridding the premises which he occupies of the pest, but when it comes to structural improvements, in the majority of cases he refuses to bear the expense, the result being that the premises in a very short time are as badly over-run as they were prior to disinfestation.

The work of the Rats Officer for the year is given in the subjoined table.

Complaints received .. .. .	262
Premises inspected .. .. .	463
Premises found to be more or less infested with rats	370
Premises cleared .. .. .	305
Premises where infestation was diminished ..	15
Cases in which rat proofing was carried out ..	230
Cases in which drainage was found defective ..	25
Cases in which rat-catchers were employed ..	36
Premises with work in hand at end of year ..	50
Rats caught by ferrets, dogs, cats, traps, or killed by hand or found poisoned ..	2,450
Visits for purpose of observation, work in progress, or work done .. .. .	826
Visits for other causes, such as appointments, interviews with owners and others, enquiries ..	228

## FOOD.

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**Cows and Cowsheds.**—The experience of another year of constant supervision of the cows and cowsheds in the City has merely served to re-emphasise the necessity for regular routine inspection if a satisfactory standard of cleanliness is to be maintained. The small percentage of cows, sheds and adjoining yards found dirty contrasts very strikingly with the conditions found in the rural areas from which a great part of the City's supply of milk comes. But in this very fact lies what is considered by the town dairyman to be a grave injustice, viz. :—that he has to maintain a standard of cleanliness far above that demanded of the country farmer and has to accept the same price for his milk. One must admit that there is a good deal of justification for the complaint but it is one which can only be remedied by a revision of the existing law. The present position of the milk trade in England is not creditable to the Government and shows either subservience to vested interests or lack of appreciation of the true facts.

There is much talk of the "grading of milk" as if that could provide a remedy. Far from improving matters, the classification of milk would but serve to accentuate the difficulties. It would benefit the rich whose children are already well enough protected whilst the poor would continue to suffer. What the public health of England demands is a pure milk supply which requires neither boiling nor pasteurising but which is clean and wholesome and free from even the suspicion of disease at the source. The Milk and Dairies Act of 1915 is a step towards the attainment of that ideal and it is devoutly to be hoped that it will come into force before the current year is out.

As illustrations of the many incongruities in the existing law, whilst a Local Authority may insist upon cleanliness of the sheds it has no power to demand that the cows be clean, or again, whilst it is unlawful for a dairyman to offer the milk of a cow suffering from tuberculosis for sale to the public, there is no means of preventing his disposing of the animal to another farmer living outside the

area or to a butcher for slaughter for human food. Had the Tuberculosis Order of 1913 been in operation such a thing as the re-sale of an infected animal would have been impossible, but as things are we are powerless to prevent it. The natural consequence is that, instead of diminishing, the number of tubercle infected animals in the country are increasing. And this is how we fight the Great White Plague?

The total farms in the City visited for purposes of inspection of cows and cowsheds was 158, and the total number of visits paid 607. At 7 of the farms there were no cows kept, 9 discontinued the keeping of dairy cows during the year, leaving at the end of the year a total of 142 farms still in use as dairy farms. The number of cows examined was 2,093 and the total number of examinations made 8,318. Of the cows examined 7,662 (or 92 per cent.) were clean and 656 (or 8 per cent.) dirty. As regards the health of the cows examined 29 (or 1·38 per cent.) were found to be diseased, 15 (or 0·72 per cent.) having tuberculosis of the udder, and 14 (or 0·67 per cent.) diseases other than tuberculosis. In every case where tuberculosis was diagnosed the farmer was instructed to isolate the cow from the rest of the herd, destroy the milk and dispose of the cow for slaughter. There are no means of proving that these instructions were carried out though in most of the cases I believe they were.

The number of cowsheds inspected was 241 and the total number of inspections 927 whilst the number of yards visited was 149 with a total of 442 inspections. The sheds were reported clean at 822 visits and dirty at 105, whilst the yards were clean at 417 visits and dirty at 25. Twenty-four (or 10 per cent.) of the sheds in use are unsatisfactory and should be abolished.

In addition to the above work done in the City 987 cows were examined outside the City at farms supplying milk to Leeds. Of these 463 (or 47 per cent.) were found to be clean and 524 (or 53 per cent.) dirty; 74 sheds were inspected and 15 (or 20 per cent.) found clean, and 59 (or 80 per cent.) dirty; 8 (or 20 per cent.) of the yards were clean and 33 (or 80 per cent.) dirty. Of the 987 cows examined 4 were found to be suffering from tuberculosis of the udder and 3 from suppurative mastitis.

The following is a summary of the work done by the Food and Drugs Inspectors in connection with the milk and food supply.

Visits to milkshops .. .. .	982
Visits to cowsheds .. .. .	539
Visits to Railway stations .. .. .	450
Farms or milkshops visited <i>re</i> infectious disease ..	43
Number of milk retailers in the City .. .. .	453
Number of cowsheds in the City .. .. .	158
New cowsheds built .. .. .	1
Cowsheds improved or reconstructed .. .. .	15
New dairies built .. .. .	7
Shops visited (with regard to proper labelling of margarine, cleanliness etc.) .. .. .	452

**Milk and Food Analysis.**—The subjoined tables set out the number of samples of milk and other foods taken during the year and examined by the City Analyst, with information as to quality and composition and results of Court proceedings.

SAMPLES OF FOOD SENT TO THE CITY ANALYST FOR EXAMINATION DURING 1921.

Article.	Genuine.	Adulterated.	Total.	Taken formally.		Taken informally.	
				Genuine.	Adulterated.	Genuine.	Adulterated.
Milk .. .. .	216	46	262	210*	45	6	1
Dried Milk .. .. .	2	..	2	..	..	2	..
Preserved Cream .. .. .	2	..	2	..	..	2	..
Butter .. .. .	34	..	34	34	..	..	..
Margarine .. .. .	1	..	1	1	..	..	..
Lard .. .. .	9	..	9	9	..	..	..
Vinegar .. .. .	17	..	17	17	..	..	..
Pepper .. .. .	1	..	1	1	..	..	..
Jam .. .. .	3	..	3	2	..	1	..
Coffee .. .. .	4	..	4	4	..	..	..
Lemonade .. .. .	2	1	3	..	..	2	1†
Lime Juice and Soda .. .. .	1	..	1	..	..	1	..
Steriline .. .. .	1	..	1	..	..	1	..
TOTAL .. .. .	293	47	340	278 45		15 2	
				323		17	

\* Seven samples of milk contained boric compounds.

† Contained copper compounds.

SUMMONSES ISSUED DURING 1921, UNDER THE SALE OF FOOD  
AND DRUGS ACT.

No. of Sample	Article.	Adulteration or Offence.	Fines.			Remarks.
			£	s.	d.	
84	Milk ..	8·5% added water..	..	..	..	retailer ; to pay costs. farmer supplying No. 84 ; dismissed. Summons wrongly dated. retailer ; to pay costs. do. ; dismissed under Probationers Act. wholesaler to No. 103. dismissed under Probationers Act. and costs. Farmer's second conviction, fined in year 1918. retailer. farmer ; to pay 17s. 6d. costs.
86	Do. ..	15% do. ..	..	..	..	
87	Do. ..	10% do. ..	..	..	..	
95	Do. ..	6·5% do. ..	..	..	..	
103	Do. ..	6·5% do. ..	..	..	..	
104	Do. ..	11% do. ..	..	..	..	
105	Do. ..	7% do. ..	..	..	..	
119	Do. ..	9% do. ..	2	0	0	
120	Do. ..	7% do. ..	2	0	0	
149	Do. ..	8% do. ..	2	0	0	
152	Do. ..	15% do. ..	..	..	..	
			£6	0	0	

**Guinea Pig Tests.**—During the year, in addition to the samples of milk submitted to the City Analyst, 98 samples were sent to the School of Medicine for examination for the presence of the tubercle bacillus. Two (or 2 per cent.) were found to be positive. One of these was from a cow in one of city herds, which was isolated and later destroyed. The other was from milk supplied by a farm outside the city. The Veterinary inspector visited the farm in question and found two cows both exhibiting symptoms of tuberculosis of the udder. Both cows were isolated and the milk ordered to be destroyed, the farmer being warned of his responsibilities under the Milk Clauses of the Leeds Corporation (General Powers) Act, 1901. The Medical Officer of Health for the district was informed of the presence of these infected animals in the herd and asked to take such steps as lay within his power to ensure that the milk from them was not sold for public consumption. This he did.

**Milk and Cream Regulations.**—All samples of milk submitted for analysis were examined for boric compounds or other preserva-

tives. Seven genuine samples were found to contain boric compounds. In each case the offender was warned.

Two samples of preserved cream were taken and both contained boric acid within the requirements of the regulations.

**Meat.**—The report of the meat inspector on the inspection of meat and other foods shows that the work of this department has been well maintained. The past year has seen the clearance from cold storage of the remainder of the meat placed therein as a reserve during war time.—Much of it had so deteriorated as to be useless and was destroyed. The only public cold store at present in existence in the City has by the introduction of more modern plant and by better organisation improved the handling of meat and thus increased its efficiency. The erection of another cold store is projected and should the proposal materialise one may expect further improvement as the result of competition.

The report of the Departmental Committee on meat inspection issued by the Ministry of Health at the latter end of the year naturally draws attention and invites criticism of our own organisation, and it is gratifying to know that, though by no means perfect, Leeds comes well up to the standard laid down in the report. The staff of inspectors is sufficient and efficient ; the system of inspection is very satisfactory and the manner of dealing with unsound carcasses falls little short of the recommendations, and the local butchers have been trained to notify the department promptly of any carcass or carcasses which they may have in their possession which are unsound or suspicious. The schedule of diseases and the action recommended to be taken in each case has been complied with in this city for many years. The control of the private slaughter-house is admittedly unsatisfactory and never will be satisfactory so long as it exists. The substitution of licensing for registration in all cases would be very helpful and is most desirable, but that would entail new legislation.

The private slaughter-houses in the city are on the whole conducted in a satisfactory manner. Some of them are overcrowded, others are situated in totally unsuitable places, whilst a few are old and dilapidated. The only remedy is total abolition. To do that is impossible without Parliamentary powers, besides which it would

necessitate the extension of the Public Abattoir to accommodate the displaced tenants. At present the Public Abattoir is taxed to its utmost capacity to meet the demands of the wholesale dealer, and the retail butcher is squeezed out and has to find room elsewhere usually in already overcrowded and undesirable private slaughter-houses. The first step to be taken towards abolition of the private slaughter-house must be the provision of ample and proper accommodation in the Public Abattoir. In my opinion this constitutes one of the most urgent needs of the city.

#### SLAUGHTER-HOUSES IN USE.

	1914.	January, 1921.	December, 1921.
Public Abattoir .. .. .	2	1	1
Private slaughter-houses (registered)	63	63	63
Do. (licensed)	10	8	8
Knackers' Yard .. .. .	2	2	2

There were 8,112 visits paid to slaughter-houses and 8,430 visits to markets, shops and stations.

In spite of the absence of legal powers the inspectors are continually attempting to improve the conditions under which meat is handled and distributed particularly from wholesale to retail traders. Although in some instances there has been improvement there are far too many firms engaged in the trade of meat carriers whose methods of handling meat leave much to be desired. Cleanliness is conspicuous by its absence and not the slightest attempt is made to protect the meat from contamination in course of transit. Anything does for a cover; old sacking, horse-cloths, rags, etc., may all be seen in intimate contact with carcasses fresh from the hanging-room. Such indifference to the elementary laws of hygiene, to say nothing of ordinary decency, is an outrage and an affront to modern civilisation and ought to be remedied at all hazards. But Leeds is not alone in this respect. Every other town is in similar case and no improvement is likely until the Government moves in the matter.

The market is patrolled by an inspector regularly every Saturday night and one inspector is on duty every Sunday morning visiting the East End, Bank district and High Street Area, also hawkers' carts, open shops and slaughter-houses are inspected.

The work of the meat inspectors is shown in the following table :—

MEAT, ETC., DESTROYED BY CONSENT.

	1921.	1920.	1919.	1918.
Beef .. ..	143,503 lbs.	175,689 lbs.	224,620 lbs.	186,852 lbs.
Veal .. ..	4,572 "	2,624 "	6,239 "	7,185 "
Mutton .. ..	8,458 "	76,264 "	36,383 "	9,496 "
Bacon and Ham..	..	1,955 "	1,642 "	18,793 "
Pork .. ..	4,963 lbs.	4,106 "	5,848 "	3,032 "
Offals .. ..	18,856 "	21,457 "	20,713 "	12,520 "
Horse Flesh .. ..	..	600 "	3,672 "	3,496 "
Rabbits .. ..	194,243 lbs.	66,893 "	37,229 "	17,927 "
Poultry .. ..	5,690 "	1,608 "	3,278 "	841 "
Game .. ..	797 "	220 "	198 "	78 "
Eggs .. ..	50,646	93,060	77,235	1,738
Cheese .. ..	4,203 lbs.	12 lbs.	2,469 lbs.	34 lbs.
Fish .. ..	123,757 "	129,452 "	176,955 "	87,602 "
Shellfish .. ..	99,269 "	57,057 "	27,409 "	23,552 "
Oysters .. ..	..	..	..	4,000
Fruit .. ..	11,886 lbs.	15,151 lbs.	19,671 lbs.	1,904 lbs.
Dried Fruit .. ..	..	..	700 "	..
Dates .. ..	..	..	15,867 "	..
Vegetables .. ..	27,094 lbs.	64,860 lbs.	47,980 "	89,059 lbs.
Inedible fungi .. ..	..	40 "	10 "	543 "
Edible fungi .. ..	1,317 lbs.	40 "	332 "	..
Butter .. ..	382 "	3,789 "	5,401 "	6,886 lbs.
Margarine .. ..	..	..	4,480 "	512 "
Flour .. ..	..	700 "	140 "	13,162 "
Chocolate .. ..	..	..	..	100 "
Liquid Eggs .. ..	..	..	..	225 "
Yeast .. ..	6,709 lbs.	2,240 lbs.	504 "	..
Groceries .. ..	..	..	2,796 "	..
Tinned Goods .. ..	9,443 lbs.	10,918 lbs.	1,656 "	..
Sundries .. ..	424 "	280 "	51 "	..

**Tuberculous Carcases.**—The number of carcases condemned for tuberculosis during 1921 was as follows: 126 carcases of beef and organs, 17 carcases of pork and organs, 1 carcase of veal and organs, also beef weighing 833 lbs.

## INFECTIOUS AND OTHER DISEASES.

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A complete summary of cases notified of all the notifiable infectious diseases will be found in the Appendix (Table II.).

**Influenza.**—During the last few weeks of the year there was a mild epidemic of this disease, exemplified by the increase in the number of the notifications of acute influenzal pneumonia and the number of deaths from diseases of the respiratory system. As the disease is not notifiable it is only possible to judge of the prevalence by deductions from the above diseases. During the last five weeks of the year the deaths from Influenza were 5, 14, 36, 28 and 14. Supplies of Anti-Influenza vaccine were available for prophylactic purposes but only very few of the medical practitioners took advantage of this provision. The type of influenza during the epidemic was of a mild nature, and cases exhibiting the "heliotrope cyanosis" were not met with at all. The age groups chiefly involved were those between five and forty-five years. The deaths numbered 164 as compared with 170 in the previous year, and there were 92 cases of acute influenzal pneumonia notified.

**Measles.**—The year 1921 proved to be a non-epidemic one as far as this disease was concerned. There were only 5 deaths from measles giving a death rate of .01, the lowest recorded during the last decade. The five deaths recorded all occurred between the ages of one and three. Altogether only 240 cases of measles, which include 31 cases of German measles, were notified during the year. In my report of last year reference was made to the extreme importance of protecting infants as far as possible from the disease. This advice cannot be too often repeated as the amount of damage caused by measles in infant life is enormous—which damage is frequently the precursor of tuberculous manifestations. It is highly important to impress upon the public the fact that it is not necessary that every child should have measles, but when a case does occur in a household every effort to protect the other children should be made by effectively isolating the sufferer. The longer an attack of measles is deferred in child life the less likely is a fatal termination to ensue from an attack of the disease or from its complications.

## MEASLES.

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1911	..	..	78	0·18	0·36
1912	..	..	159	0·36	0·35
1913	..	..	108	0·23	0·28
1914	..	..	218	0·48	0·24
1915	..	..	78	0·17	0·43
1916	6,911	15·48	149	0·33	0·15
1917	5,094	11·62	277	0·63	0·30
1918	6,714	15·70	417	0·98	0·28
1919	2,605	6·05	48	0·11	0·10
1920	5,523	12·30	148	0·33	0·19
1921	240	0·52	5	0·01	0·06

## AGES AT DEATH FROM MEASLES.

1921	0-1	1-2	2-3	3-4	4-5	5-10	10-15	Total.
No. of Deaths	..	2	3	..	..	..	..	5

**Whooping Cough.**—There was a slight decrease in the number of deaths from this disease as compared with last year. All of these deaths occurred in children of the age of five or under. The remarks made above with regard to the protection of children from infection apply with equal force to this disease. Many a child

convalescent from measles has received its death sentence on falling a victim to whooping cough. Adequate nursing and protection of the patient from chills will largely reduce the incidence of broncho-pneumonia, which disease is really the immediate cause of death in those suffering from whooping cough. The total deaths recorded was 72 and the death rate 0·15.

#### WHOOPING COUGH.

Year.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1911	147	0·33	0·21
1912	54	0·12	0·23
1913	94	0·20	0·14
1914	141	0·31	0·21
1915	158	0·34	0·21
1916	45	0·10	0·16
1917	69	0·16	0·13
1918	130	0·30	0·29
1919	66	0·15	0·07
1920	100	0·22	0·11
1921	72	0·15	0·12

#### AGES AT DEATH FROM WHOOPING COUGH.

1921	0-1	1-2	2-3	3-4	4-5	5-10	10-15	Total.
No. of deaths	21	39	4	5	3	..	..	72

## SCARLET FEVER.

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1911	1,633	3·67	45	0·10	0·05
1912	1,227	2·75	40	0·09	0·05
1913	1,311	2·82	15	0·03	0·06
1914	1,346	2·94	30	0·07	0·08
1915	1,454	3·17	30	0·07	0·06
1916	881	1·97	23	0·05	0·04
1917	543	1·24	7	0·02	0·02
1918	570	1·33	19	0·04	0·03
1919	1,340	3·11	23	0·05	0·03
1920	1,363	3·04	17	0·04	0·04
1921	1,526	3·28	14	0·03	0·03

**Scarlet Fever.**—The cases of this disease notified in 1921 numbered 1,526, an increase of 163 on the number notified during 1920. There were 14 deaths from this disease giving a death-rate of 0·03 which is slightly lower than that for the previous year (0·04), although there was an actual increase in the number of cases notified. Ninety per cent. of the cases notified were removed to the City Fever Hospital, Seacroft. The remaining 10 per cent. were chiefly patients who could be given adequate nursing and isolation at home.

During the last decade scarlet fever has become a comparatively mild disease as manifested in the annual mortality rates. The disease however has still maintained its damaging properties as demonstrated by the number of cases of middle ear disease, rheumatism and nephritis which are directly attributable to a previous attack of the disease.

Skilled nursing such as that obtained in modern isolation hospitals is a very potent factor in lessening the damage (often permanent) resulting from this disease. This statement must not however be construed as meaning that every case of scarlet fever should receive hospital treatment. On the contrary, only such cases as cannot be adequately isolated and provided with proper medical and nursing attention in their own homes should be removed to hospital.

**Diphtheria.**—The facilities which now exist for the early diagnosis and treatment of this disease have markedly reduced the mortality rates, but the number of cases notified annually for the last ten years has never been less than 400. It is to the "carrier" that this state of affairs is largely due. The risk of

#### DIPHtheria AND CROUP.

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1911	1,165	2·62	154	0·35	0·13
1912	705	1·58	95	0·21	0·11
1913	880	1·89	89	0·20	0·12
1914	700	1·53	59	0·13	0·15
1915	402	0·88	51	0·11	0·15
1916	423	0·95	40	0·09	0·14
1917	549	1·25	60	0·14	0·13
1918	542	1·27	47	0·11	0·14
1919	811	1·88	43	0·10	0·13
1920	885	1·97	64	0·14	0·15
1921	665	1·43	38	0·08	0·12

infection from this source is far from negligible and is to a certain extent beyond control. During the past year a system of active immunization against diphtheria known as the Schick Test has been brought to the notice of the medical profession by the Ministry of Health. In a special report the Ministry of Health deals with the use of this test as a means of recognizing susceptibility to the disease. It also suggests a method of conferring immunity on susceptible persons by means of inoculation with standardized toxin-antitoxin. The test has nothing to do with the detection of actual cases or carriers, its main object is to discover the susceptibles in a population and to enable the doctor to administer the protective serum and thus prevent their falling victims to the disease. If the method proves a success it will be a valuable adjunct to the measures already in operation throughout the country for the control of the disease. The value of the test is at present being enquired into by the Medical Superintendent of the Infectious Diseases Hospital at Seacroft and if satisfactory results are obtained a special report on the subject will be submitted to the Health Committee.

The number of cases notified was 665 as compared with 885 for the previous year and the death-rate was 0.08 as compared with 0.14 in 1920 and an average of 0.12 for the previous five years. The death-rate is again below the corresponding rate for England and Wales which in 1921 was 0.12. Of the total cases notified 90.7 per cent. were treated in the City Hospital, Seacroft.

**Smallpox.**—For the sixth year in succession there were no cases of smallpox notified in the City. During the latter months of the year a certain number of cases were notified in the West Riding of Yorkshire and in view of the various close proximity of these infected areas one must again warn the public of the necessity for obtaining protection against this disease by means of vaccination and re-vaccination.

Unfortunately the term "*alastrim*" has been used to describe some of the milder cases of smallpox occurring in the various towns in the North and Midlands and may come to occupy a permanent place in medical nomenclature. The word is of foreign origin and is really meaningless because the disease so called "*alastrim*" differs in no material respect from smallpox except perhaps that

the symptoms are milder. Most authorities are now agreed that the identity of the two complaints has been established. This being the case, to continue the use of the term is merely to confuse the public mind and cause doubt and hesitancy when promptness of decision and action are most required. It is to be hoped that it will be abolished before further evil consequences ensue.

**Enteric Fever.**—The number of cases of this disease notified in Leeds during the year was the lowest on record as also was the total

ENTERIC FEVER.

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1911	119	0·27	22	0·05	0·07
1912	65	0·15	18	0·04	0·04
1913	85	0·18	19	0·04	0·04
1914	84	0·18	23	0·05	0·05
1915	106	0·23	21	0·05	0·04
1916	48	0·11	9	0·02	0·03
1917	37	0·08	7	0·02	0·03
1918	42	0·10	5	0·01	0·03
1919	33	0·08	8	0·02	0·01
1920	29	0·06	4	0·01	0·01
1921	24	0·05	2	0·00	0·02

CASES OF ENTERIC FEVER MONTH BY MONTH.

Jan.	Feb.	March	April	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
—	—	4	2	—	1	1	4	5	1	5	1

mortality and this notwithstanding the fact that the year was the hottest and driest experienced by the country for many years. In the old privy midden days such a year would have been marked by an enhanced case-rate and mortality rate instead of which the City reached low water mark as far as these rates are concerned. This is another proof of the value of improved sanitary conditions inside and outside the home. The subjoined table shows the steady fall in the mortality from enteric fever during the last decade. Twenty-four cases only have been notified during the year and of these only two succumbed to the disease.

**Erysipelas.**—Notifications were received of 183 cases of this disease and 10 deaths were attributed to it, being a decrease of 5 deaths over those recorded in the previous year.

**Puerperal fever.**—There were 31 cases notified during the year of which 45·2 per cent. were in the practice of midwives and the remainder 54·8 per cent. in the practice of doctors or in institutions. The deaths recorded numbered 8 which is equal to a death-rate per thousand of the population of 0·02, as compared with 29 and 0·06 respectively in 1920. Happily the mortality from this disease decreased during 1921 and was only one third of that recorded for 1920.

**Encephalitis Lethargica.**—Thirteen cases of this disease were notified during the year and 10 deaths were recorded. Last year the cases numbered 8 and the deaths 3. It is not possible to say with certainty that all the cases notified as encephalitis lethargica were true cases. Owing to its complex nature diagnosis of the disease is difficult. Although this disease appears to be of low infectivity the usual precautions taken with infectious disease should still be observed.

**Acute Anterior Polio-Myelitis.**—Only one case of this disease was notified during the year.

**Cerebro-Spinal Meningitis.**—Only one case was notified and that in a child of two years—it proved fatal.

**Malaria, Dysentery and Trench Fever.**—Four cases of malaria and one of dysentery were notified as occurring in the City during the past year. In one case malaria was the immediate cause of death.

**Ophthalmia Neonatorum.**—The number of cases of Ophthalmia Neonatorum notified to this department during the year showed a gratifying decrease. The total number of notifications received was 107 as compared with 141 for the previous year, or a decrease of 24 per cent. The reduction taken in conjunction with the decline in the number of new cases of Gonorrhœa reported to the Venereal Diseases Clinic may be taken as an indication that this disease is on the decrease in the City. Of the cases notified, 33 occurred in the practices of medical practitioners, 65 in those of midwives, and 9 in institutions. The number of cases treated at home by private doctors or as out-patients at the Leeds General Infirmary or Infant Welfare Centres was 88, whilst 19 were treated as in-patients, namely, 5 in the Leeds General Infirmary, 2 in the Township Infirmary and 12 in the Maternity Hospital.

In addition to the above, 116 cases of discharging eyes were reported by midwives or health visitors, two of which proved to be true cases of Ophthalmia Neonatorum.

During the year the Maternity and Child Welfare Committee gave considerable time and attention to the question of the treatment of Ophthalmia Neonatorum. They felt that all was not being done that might be for the cases, and in order to make the home-treatment more efficient they decided to enlist the help of the district nurses. An agreement was therefore concluded with the Leeds District Nurses' Association, Lovell Street Home, whereby the nurses in the various districts undertook the care of cases reported to them, under the direction of the medical practitioner in attendance; that is to say that the district nurse went to each home from which a case of Ophthalmia Neonatorum had been notified and assisted the mother in carrying out the directions of the doctor. There is no doubt that this arrangement will be a great boon to mothers, but the greatest advantage to be derived from it will be that it will prevent damage to the eyes in numbers of children who without such assistance might be rendered partially or totally blind. For this service the Corporation pays the Nursing Association a retaining fee of £58 and 10s. per case.

With a view to preventing the disease the Committee also had under consideration a scheme for supplying midwives in practice with a prophylactic for instillation into the eyes of the new-born.

They agreed to adopt the scheme, and every midwife competent to apply the drug has been provided with a quantity of a 20 per cent. solution of Argyrol in a specially designed bottle. One hopes that as a result of this precautionary measure there will be a further reduction in the number of cases notified during the current year. It might be added that the solution is supplied to the midwives free of charge. For the benefit of those midwives who had not had an opportunity of seeing the drug applied a special course of demonstrations was arranged at the Leeds Maternity Hospital to which all the midwives were invited. The course was well attended.

The subjoined table gives full particulars of the results of treatment.

DAY OF ONSET FROM BIRTH.

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	10th-15th	15th-20th	20th-25th
No. of Cases	7	5	9	13	6	11	11	10	15	5	10	4	2

The result of treatment was as follows:—

Recovery apparently perfect	..	..	92
Recovery not perfect	..	..	1
Sight of both eyes affected	..	..	1
Still under treatment	..	..	7
Died	..	..	3
Result not known owing to removal	..	..	3

**Diarrhœa and Enteritis.**—The number of deaths recorded under this heading during the past year was 184 as compared with 140 in the year 1920. The increase can be partially explained by the extremely hot, dry summer which characterized the year, the like of which had not been experienced since 1911. The danger of milk and milk foods becoming contaminated is considerably greater in hot dry weather and consequently the risk of infection particularly amongst bottle fed infants is enhanced. The rise in the death rate from diarrhœa and enteritis was general throughout the country and it is gratifying to note that although there was

an increase of 44·8 per cent. in the number of deaths from this disease in Leeds, the increase for England and Wales was considerably higher viz., 86·7 per cent. As in the previous year a ward at Seacroft Hospital was opened for the reception of cases from poor or insanitary houses. The benefit which might have been derived from this provision was curtailed by the late stage at which cases were reported. Epidemic diarrhœa is not a disease which will permit of dallying. Immediate action is essential if death is to be avoided. This fact I am afraid was not sufficiently realized either by parents or doctors the result being that a large proportion of the cases admitted to hospital died, many of them within a few hours of admission. The meteorological table given on page 56 gives particulars of temperature and rainfall during the year.

DIARRHŒA AND ENTERITIS DEATHS UNDER TWO YEARS FROM  
1911 TO 1921, WITH RATES PER 1,000 BIRTHS.

Year.	Deaths.	Rate per 1,000 Births.	
		Leeds.	England and Wales.
1911	578	54·7	44·0
1912	114	11·1	9·1
1913	339	31·2	24·2
1914	287	26·9	21·1
1915	282	28·6	18·9
1916	214	22·7	13·1
1917	171	22·6	12·8
1918	146	19·8	11·7
1919	140	18·5	10·2
1920	140	12·5	8·3
1921	184	18·1	15·5

The 184 deaths from diarrhoea and enteritis were of children aged as follows :—

Under one month ..	17	6-9 months ..	30
1-3 months .. ..	34	9-12 months ..	16
3-6 months .. ..	60	1-2 years ..	27

The incidence of diarrhoea month by month is shown in the small table.

#### DEATHS, TEMPERATURE AND RAINFALL IN EACH MONTH OF YEAR.

1921.	Jan.	Feb.	Mar.	April.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Deaths .. ..	3	5	5	9	4	7	12	57	42	21	14	5	184
Temperature °F.	46.21	43.00	48.54	48.75	57.56	62.68	69.35	61.75	60.71	58.23	42.22	46.83	53.82
Rainfall (inches)	2.63	0.22	1.17	1.22	0.86	0.34	0.46	3.80	0.74	1.68	2.64	3.10	18.86

The meteorological data are compiled from returns sent us by Mr. Crowther. They are uncorrected readings, made at 10 a.m. and 4 p.m.

**Bronchitis and Pneumonia.**—The number of deaths from bronchitis and pneumonia during the year were 556 and 562 respectively as compared with 625 and 622 for the same diseases during the year 1920. Acute primary and acute influenzal pneumonia are the only diseases in this group which are notifiable and during the year there were 418 cases of the former and 92 of the latter. Unfortunately the total number of cases of pneumonia occurring in the City does not correspond with the total number of notifications received and I would urge upon medical practitioners the importance of notifying cases at the earliest possible moment otherwise any benefit to be derived from notification disappears and the thing becomes a farce. Full advantage is taken of the information received by notification. The homes of the sufferers are visited and where bad conditions obtain every effort is made to remedy these or where that is impossible to secure institutional treatment for the patients. During the past year a certain number of cases were treated in hospital but owing to lack of accommodation for medical cases in the only General Hospital in the City the number had perforce to be restricted. It should be borne in mind that skilled treatment in a Hospital or Infirmary will save the lives of many patients who in dark, overcrowded and badly ventilated rooms

would almost inevitably succumb. There is much evidence on record that pneumonia is under certain conditions highly infectious. Close personal contact (so called spray infection from coughing and sneezing) occurring in ill-ventilated, overcrowded rooms are examples of conditions capable of increasing the range of the infectivity of the disease.

## BRONCHITIS.

Year.	Deaths.	Rate per 1,000 Population.
1911	559	1.26
1912	576	1.29
1913	647	1.39
1914	539	1.18
1915	738	1.61
1916	620	1.39
1917	646	1.47
1918	653	1.53
1919	741	1.72
1920	625	1.39
1921	556	1.19

## AGES AT DEATH FROM BRONCHITIS.

1921	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
No. of Deaths	81	19	6	3	3	27	139	278	556

## PNEUMONIA.

Year.	Deaths.	Rate per 1,000 Population.
1911	612	1.38
1912	479	1.07
1913	585	1.26
1914	610	1.33
1915	725	1.58
1916	586	1.31
1917	565	1.29
1918	768	1.80
1919	560	1.30
1920	622	1.39
1921	562	1.21

## AGES AT DEATH FROM PNEUMONIA.

1921	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
No. of Deaths	99	96	35	15	18	98	113	88	562

I should like once more to allude to the urgent need of further hospital accommodation for these acute respiratory diseases in the City. The importance of ensuring complete recovery—apart altogether from the prevention of death—must be obvious to everyone.

A partially cured case of pneumonia or bronchitis is a potential case of pulmonary tuberculosis and a large percentage of these cases actually do succumb to this disease. Humanity and economy (national and local) demand that more attention shall be given to the treatment and convalescence of these diseases. There are beds and to spare in the poor-law institutions and yet they remain unoccupied or not occupied to the best advantage. Why should not these great and well built and equipped hospitals be put at the service of the whole of the sick of the community and not restricted merely to a section ?

**Cancer.**—The total deaths recorded from this cause in 1921 was 554 giving a death-rate of 1.19 per 1000 population. Much research work is being done upon the causation of this disease but so

CANCER.

Year.	Deaths.	Rate per 1,000 Population.
1911	423	0.95
1912	430	0.96
1913	525	1.13
1914	457	1.00
1915	521	1.13
1916	500	1.12
1917	535	1.22
1918	500	1.17
1919	575	1.33
1920	492	1.10
1921	554	1.19

far has proved fruitless. Increased accuracy in diagnosis and greater facilities for skilled operative treatment have done much to lessen the ravages of this disease. In the majority of cases surgical interference is absolutely necessary if life is to be saved and should be undertaken without delay. The control of cancer mortality is in the hands of the people themselves and may be summed up in the words "despise not trifles." How often does one hear a man or a woman complain of a pain here or an ache there followed by the statement, "Oh, it's nothing, I'll be all right to-morrow," and when to-morrow arrives it is too late—the disease has advanced too far for surgical treatment to be undertaken with any hope of success. Such things as "trivial complaints" do not exist either in early childhood or middle age.

#### **INFECTIOUS DISEASES HOSPITAL.**

The increased prevalence of Scarlet Fever and Diphtheria made the hospital very busy during the latter half of the year. Speaking generally, the cases admitted to hospital were not severe and the case mortality was therefore low. It ought to be recognised however that whilst the victims of these diseases may be saved from death, they not infrequently are maimed in one part of the body or another and that maiming may result in permanent damage. It is impossible to estimate the amount of damage thus done, but it is probably considerable. Hospital treatment has an undoubted influence in reducing the amount of damage.

Particulars of the work of the hospital for the year are set out in the table on page 61.

# LEEDS CITY HOSPITALS, SEACROFT.

## ABSTRACT FROM REGISTERS.

YEAR 1921.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Typhus.	Enteric Fever.	Pneumonia.	Inf. Diarr.	Other Diseases.	For Quarantine (Cottages).	Total.
Patients remaining in Hospitals and Isolation Cottages, on Saturday, January 1st, 1921	..	..	176	68	..	2	..	..	22	..	268
Admitted from January 2nd, 1921, to December 31st, 1921	..	4	1,372	608	..	15	7	84	185	2	2,277
Total treated .. ..	..	4	1,548	676	..	17	7	84	207	2	2,545
Discharged .. ..	..	4	1,215	543	..	14	2	39	182	2	2,001
Died .. ..	..	..	13	37	..	..	4	43	15	..	112
Mortality per cent. ..	..	..	1.0	6.5	..	..	66.6	52.4	7.7	..	5.3
Patients remaining in Hospitals and Isolation Cottages, on Saturday, December 31st, 1921	..	..	320	96	..	3	1	2	10	..	432

### AMBULANCE WORK AND DISINFECTION.

**Ambulances.**—During the year another motor ambulance was added to the fleet, thus making three. The acquisition of this third vehicle has been a great boon, and has made it possible to dispense with the use of horse-drawn vehicles in times of epidemic disease. But for a City of the size of Leeds there should be at least four ambulances, one being retained for emergency work only and to take the place of such of the others as may be out of commission.

The following cases were removed by the ambulances to the City Hospitals, Seacroft and Killingbeck, during 1921 :—

Smallpox .. .. .	—
Scarlet Fever .. .. .	1,267
Diphtheria .. .. .	631
Typhoid Fever .. .. .	21
Tuberculosis .. .. .	146
Other Diseases .. .. .	152
	Total .. .. .
	2,217

In addition, 44 cases of Tuberculosis were conveyed to Armley House Sanatorium. Removals of cases from Seacroft and Killingbeck Hospitals to their own homes or to other institutions, numbered 75. Also 25 journeys were made from Armley House Sanatorium to their own homes. Over and above these, 26 other journeys were made.

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

Houses disinfected .. .. .	2,575
Rooms disinfected .. .. .	5,917
Beds and mattresses disinfected .. .. .	4,561
Articles of bed clothing disinfected .. .. .	23,139
Articles of wearing apparel disinfected .. .. .	41,085
Miscellaneous articles disinfected .. .. .	6,992

Also 613 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, 88,009 articles of bedding, clothing, etc., have been washed and disinfected.

Medicine bottles sterilized for the Tuberculosis Dispensary, 5,801.

### BACTERIOLOGICAL WORK.

The following is a complete summary of the bacteriological work done for the Health Department by the Department of Bacteriology in the Leeds University Medical School, under the supervision of Professor Matthew Stewart, the City Bacteriologist.

#### GENERAL.

NATURE OF TEST.	NUMBER OF TESTS.
Swabs for diphtheria .. .. .	1,101
Sputum for tubercle bacilli .. .. .	1,182
Sputum for tubercle bacilli (guinea-pig inoculation)	14
Sputum for do. for culture .. .. .	2
Pus for tubercle bacilli .. .. .	8
Fluid from pleura for T.B. .. .. .	1
Fæces for tubercle bacilli .. .. .	4
Fæces for typhoid and paratyphoid bacilli .. .. .	2
Fæces for dysentery .. .. .	2
Urine for tubercle bacilli .. .. .	5
Urine for presence of pus .. .. .	3
Urine for typhoid bacilli .. .. .	1
Urine for cells and organisms.. .. .	3
Urine for urea estimations .. .. .	1
Urine for presence of casts .. .. .	1
Urine for presence of blood .. .. .	1
Urine for T.N.T. investigation .. .. .	1
Urine Indican test .. .. .	2
Blood for agglutination (Widal) test .. .. .	13
Milk for tubercle bacilli (guinea-pig inoculation) ..	99
Milk for bacterial content .. .. .	3
Dried milk for do. .. .. .	1
Water for do. .. .. .	50
Blood count .. .. .	2
Blood for B.coli .. .. .	1
Blood for presence of typhoid and paratyphoid ..	1
Hair for ringworm .. .. .	2
Mussels for typhoid group .. .. .	1
Oysters for do. .. .. .	1
Cerebro-spinal fluid for meningo-coccus .. .. .	1
<b>TOTAL .. .. .</b>	<b>2,509</b>

VENEREAL DISEASE.

NATURE OF TEST.	NUMBER OF TESTS.
For detection of spirochetes—	
for treatment centre .. .. .	39
for practitioner .. .. .	..
for institutions .. .. .	..
For detection of gonococci—	
for treatment centre .. .. .	716
for practitioners .. .. .	18
for institutions .. .. .	180
For Wassermann reaction—	
for treatment centre .. .. .	4,143
for practitioners .. .. .	132
for institutions .. .. .	994
Other examinations—	
for treatment centre .. .. .	..
for practitioners .. .. .	..
for institutions .. .. .	..
TOTAL .. .. .	6,223

VENEREAL DISEASE.

Another year has passed and things are still in *statu quo* as regards the new block for the treatment of venereal disease at the Leeds General Infirmary. Negotiations have continued throughout the year between the Board of the latter institution and the Ministry of Health. For a time it looked as though they had reached a deadlock but, happily, a way out has been found and the two bodies have arrived at an agreement to convert the existing Isolation Block for purposes of the Clinic. Should this proposal finally mature—and there is every likelihood that it will—the accommodation will be greatly increased and it will then be possible to arrange the work so as to ensure greater efficiency as well as to provide greater comfort both for patients and staff.

*Statistics.*—The number of deaths certified as being due to Venereal disease was 49. This number is not a reliable index of the killing properties of these diseases because there are many cases in which death has been really primarily due to them which have been set down to other diseases. It must be borne in mind that not only do Venereal Diseases kill but they reduce the power of resistance of their victims so that they readily fall a prey to

other complaints. Of the deaths attributed to Syphilis 45 were of the congenital type which chiefly affects infants, and four were of the type generally spoken of as "acquired." Though these figures are a reduction on those for the previous year it must not be assumed that this is due to a lessened incidence of the disease. Rather is it the result of more accurate diagnosis and a greater tendency on the part of those infected to seek early advice and treatment. If death certificates always bore the true cause of death and not as they so often do some contributory cause only, the effect on the total death rate from these diseases would be considerable.

*Work of Treatment Centre.*—Details of the number of new cases of both diseases admitted to the Clinic as well as of the attendances of all cases are set out in the subjoined tables. In connection with these it may be pointed out that the number (13·9 per cent.) who discontinued treatment before cure was complete, though not so high as last year (20 per cent.) is still very high. The majority of the delinquents were males. What to do with these defaulters is a problem which is at present exercising the minds not only of medical officers attached to treatment centres but also of social workers and the Government. There is a marked diversity of opinion as to the best course to pursue. Some are in favour of the acquisition of Parliamentary powers to compel all who take advantage of the facilities for treatment provided at the public expense to attend the Clinic until certified cured; others are opposed to compulsion in any form. Some advocate the inclusion of venereal disease in the list of notifiable diseases; whilst others favour a modified or restricted form of notification. Whichever course be ultimately decided upon there can be no doubt that something must be done to protect the public and to prevent the deplorable waste of public funds going on at present. Personally, I see many obstacles in the way of any measure which may be adopted, but I feel strongly that, if compulsory notification of these diseases be the policy decided upon, then it should be made to apply universally and not be restricted merely to those in attendance at the public clinics.

The treatment of Gonorrhœa presents even greater difficulties than does Syphilis and calls for great patience on the part of both doctor and patient. Recently I have heard doubts expressed on a public platform as to the curability of both Syphilis and

Gonorrhœa. It would be disastrous if the impression got abroad amongst the public that either disease is incurable because it might deter infected individuals from seeking treatment when they ought. It cannot be too plainly stated and insisted upon that both diseases are absolutely curable if taken in time. At the same time a serious warning should be issued that delay is dangerous and that time is the important and decisive factor.

The question of prophylaxis still burns and bothers. It never will be really settled no matter how much it be discussed or how many special Commissions may report on it. It is and must always remain a personal question which can only be settled between a man and his own conscience. To be perfectly candid, whatever the findings of the Special Committee now considering the subject may be, I shall never be a party to the introduction of a scheme for self-disinfection at the public expense and I trust the Health Committee will refuse to lend its support to any such proposal. There is only one sure way to prevent and that is to abstain from promiscuity and the greatest help to abstinence is knowledge.

*Institutions.*—Cases requiring institutional treatment were received into the Leeds General Infirmary, the Maternity Hospital and the Hope Hospital. Particulars of these are given in the tables on pages 67 and 68. Grateful thanks are due to the Boards of Management of all these institutions for their help and co-operation.

The Hope Hospital has continued to fill a very important place in the scheme in connection with the treatment and cure of girls and women of the rescue class found to be suffering from one or other of these diseases. This is a peculiarly difficult side of the work and one which requires much tact and patience. Though very successful it might be made even more so if the knowledge that such a hospital existed were more widely known and appreciated.

Ophthalmia Neonatorum is dealt with on page 53.

*Supply of Salvarsan Substitutes.*—The number of medical practitioners in the area who were qualified to receive free supplies of salvarsan substitutes was 40 up to December 31st, 1921. The amount of salvarsan substitutes distributed to practitioners was 2,578 doses.

*Pathological Work.*—The extent to which practitioners have availed themselves of the facilities for pathological examinations provided by the Council is shown on page 64.

TABLE I.

	1920.		1921.		Increase or decrease.	
	M.	F.	M.	F.	M.	F.
Syphilis .. first cases ..	1,195	665	650	319	-545	-346
Soft chancre .. ..	..	..	..	..	..	..
Gonorrhœa .. ..	688	149	534	81	-154	-68
Other diseases not Venereal .. ..	308	123	184	37	-124	-86
Total .. ..	2,191	937	1,368	437	-823	-500
Total attendances of all cases	35,000		39,873		+4,873	
Aggregate No. of In-patient days .. ..	406		391		- 15	
No. of doses of Salvarsan substitutes .. ..	18,330		16,308		- 2,022	
<b>Pathological specimens examined :—</b>						
Spirochetes .. ..	74		53		- 21	
Gonococci .. ..	866		910		+ 44	
Other organisms .. ..	..		..		..	
Blood—Wassermann reaction .. ..	5,937		5,950		+ 13	

TABLE 2.

	Year 1920.		Year 1921.		Increase or Decrease.	
	M.	F.	M.	F.	M.	F.
Syphilis .. .. first cases	656	437	411	224	-245	-213
Soft chancre .. ..	..	..	..	..	..	..
Gonorrhœa .. ..	491	112	404	59	-87	-53
Other diseases, not Venereal .. ..	234	96	153	32	-81	-64
Total .. ..	1,381	645	968	315	-413	-330
Total attendances of all cases	22,840		28,937		+6,097	
Aggregate No. of In-patient days .. ..	263		248		- 15	
No. of doses of Salvarsan substitutes .. ..	12,151		11,170		- 981	
<b>Pathological specimens examined :—</b>						
Spirochetes .. ..	51		39		- 12	
Gonococci .. ..	771		716		- 55	
Other organisms .. ..	2		..		- 2	
Blood—Wassermann reaction .. ..	4,186		4,143		- 43	

## MATERNITY HOSPITAL, 42, HYDE TERRACE.

	Cases in residence on Jan. 1st, 1921.	Cases admitted.	Cases discharged.	Cases in residence on Dec. 31st, 1921.
Syphilis .. ..	4	87	88	3
Gonorrhœa .. ..	1	17	18	..
Syphilis and Gonorrhœa .. ..	1	3	2	2
Other disease .. ..	..	..	..	..
Total .. ..	6	107	108	5

Total days in residence .. .. .. 1,735  
 No. of doses of Salvarsan substitute .. 452

**Pathological specimens examined :—**

Spirochetes .. .. .. —  
 Gonococci .. .. .. 60  
 Other organisms .. .. .. —  
 Blood—Wassermann reaction.. .. 364

## HOPE HOSPITAL, 126, CHAPELTOWN ROAD.

	Cases in residence on Jan. 1st, 1921.	Cases admitted.	Cases discharged.	Cases in residence on Dec. 31st, 1921.
Syphilis .. ..	6	12	11	7
Gonorrhœa .. ..	4	24	17	11
Syphilis and Gonorrhœa .. ..	3	13	14	2
Other disease .. ..	1	8	8	1
Total .. ..	14	57	50	21

Total days in residence .. .. .. 6,278  
 No. of doses of Salvarsan substitute .. 219

**Pathological specimens examined :—**

Gonococci .. .. .. 91  
 Blood—Wassermann reaction.. .. 123

*Education and Propaganda.*—The local branch of the National Council for Combating Venereal Disease has continued its activities throughout the year. The film "How life begins" was shown in Picture Houses in Holbeck and Harehills to large audiences, as well as at the Philosophical Hall to members of the Branch and to the senior boys from the Grammer School. The "shows" at the former were followed by parents' conferences at which the film was explained to fathers and mothers separately and the lessons to be learned pressed home. The intention was to repeat these film demonstrations in other districts of the City, but unfortunately, before this could be accomplished, the film, of which there was only one copy, petered out, and so the plan had to be abandoned. Another film "The gift of life" was viewed with the idea of substituting it for "How life begins," if thought suitable. The Branch, however, did not like this film and decided not to adopt it.

A public meeting, which was fairly well attended, was held in the People's Hall in December. The speaker was Miss Ewing Mathieson who took as her subject "Moral pitfalls and how they may be avoided." Several addresses to meetings of men in connection with the various Churches were given by the Honorary Secretaries at which various aspects of the subject were dealt with. Literature dealing with the subject was also distributed at the film displays and the public meetings.

The Branch has met twice, the Finance Committee three times, and the Executive Committee nine times during the year.

### **TUBERCULOSIS.**

Several very important changes in this section of the work fall to be recorded. The negotiations with the Leeds Association for the Prevention and Cure of Tuberculosis, which had been in progress practically since the end of 1919, for the taking over of their institutions and clinical work were brought to a successful issue at the beginning of the year, and an agreement was concluded between the Corporation and the Association by which the latter body handed over to the former their Dispensary in Great George Street, and the two Sanatoria, Armley House and Gateforth. The transference took place on the 1st April, 1921, since which date the Corporation has been the sole body responsible for the clinical treatment of persons suffering from Tuberculosis in the City. There

is no doubt that this centralization of the work will redound to the benefit not only of the patients themselves but also of the whole community. Incidentally, the change will enable economies to be effected in several directions as well as make for greater efficiency. It will eliminate overlapping and prevent unnecessary duplication of effort.

Armley House, which was occupied by male patients at the time of the transfer is now used for the treatment of females only, thus increasing the number of available female beds which for a considerable time has not been sufficient to meet the demand.

Gateforth continues to be used for early cases only. Both males and females are admitted, but 15 beds only of the 50 available are reserved for the latter. The intention of the Committee is to develop Gateforth on the lines of a training centre, and to use it for the treatment and training of first-stage cases as well as of second-stage cases in whom the disease has been arrested. Towards this end, the stables, coach-house and other outbuildings have been put into repair and are being equipped with the appliances necessary for the training of men in carpentry, tailoring, bootmaking, etc. At the same time ample facilities for learning gardening and poultry-keeping will be provided. The object of this training is not only to restore physical health and vigour by properly graduated exercise but also to educate such men and women as do not wish or by reason of their physical condition are unfitted to return to their former employment. Already the results obtained have been most encouraging, and men who, when first admitted to Gateforth are too weak to put in one hour a day at light work without being exhausted, at the end of their stay are able to put in six or eight hours of fairly hard labour without signs of fatigue.

The great lack in the tuberculous scheme in Leeds is an institution for the treatment and training of children suffering from tuberculosis of both the pulmonary and the non-pulmonary types. At present, as many as possible of the latter are sent to the Marguerite Home, Thorp Arch, and to the Lord Mayor Treloar's Hospital, Alton, Hampshire, whilst the former are treated at Killingbeck and Armley. But the number of children so dealt with is only a fraction of the number which require institutional treatment, and no attempt whatsoever is made to deal with the pre-tuberculous child. The only really hopeful way of tackling this baffling problem

of tuberculosis, and certainly the only logical way, is by treating the child. The disease if taken before it has actually established itself is much more amenable to treatment and much more easily counteracted. Instead of extensive and expensive institutions for the treatment of open cases, it would be more economical to expend money in the treatment of the pre-tuberculous in his own home where that is suitable, and where not, in special sanatoria and residential open-air schools. When the proposed new Sanatorium at Moortown is completed, accommodation for pre-tuberculous cases will become available and one hopes that a start with the building of this institution will not be long delayed.

Another important event which occurred during the year was the handing over to the Corporation by the National Health Insurance Committee on May 1st of the whole of that section of their work concerned with the treatment of insured persons suffering from tuberculosis. The Corporation are now, therefore, the only body interested in and directly responsible for the entire Tuberculosis Scheme as it affects insured as well as non-insured persons. Thus has one of the weaknesses of the National Insurance Act been removed.

**Statistics.**—During the year, 867 cases of pulmonary and 234 of non-pulmonary tuberculosis were notified, making a total of 1,101 cases. Of these, 600 were males and 501 females. Compared with the previous year, this is a decrease of 95 in the number of notifications of pulmonary tuberculosis and an increase of 25 in the number of notifications of non-pulmonary tuberculosis, and compared with the average cases notified for the previous five years a decrease of 210 in pulmonary tuberculosis and of 29 in non-pulmonary tuberculosis. Of the cases notified during 1921, 955 were by medical practitioners, 13 by school medical officers, whilst 133 came from institutions. The number of cases of pulmonary tuberculosis not heard of until the time of death was 78, which is a decrease of 61 on the figure for the previous year, or put in another way, of the total number of deaths from pulmonary tuberculosis which occurred during the year, all but 78, or 15 per cent., had been previously notified to the Public Health Department. Such a marked improvement deserves a word of commendation and I am most happy to say that word. It is very gratifying to find that the general medical practitioners in the City are paying

more attention to this most important duty, and one on which the success of the measures adopted for the prevention and cure of the disease depends so much. May I venture to hope that the current year will show a continued improvement.

An analysis of the notifications in age groups is given on page 73.

The total deaths from tuberculosis of all types during the year numbered 641, of which 337 were males and 304 females. Compared with the previous year, this is a decrease of 57 on the total deaths, and a decrease of 218 on the average of the previous five years. Pulmonary tuberculosis accounted for 519, or 81 per cent., of the total deaths, and non-pulmonary, 122, or 19 per cent. The death-rate from pulmonary tuberculosis was 1.11 per thousand of the population, non-pulmonary tuberculosis 0.26, making a total rate from both forms of tuberculosis of 1.37. These rates are lower than for the previous year, which were 1.23, 0.33 and 1.56 respectively, and also lower than the average of the previous five years, which were 1.45, 0.52 and 1.97. The decrease recorded for the year, both in the total number of notifications and in the number of deaths is most encouraging. One hears so much said in condemnation of the efforts which are being put forth by local Health Authorities to combat this disease that one welcomes results such as these, which go to prove that what is being done and the money which is being spent is not entirely in vain. But are the public doing all they might to help in the fight? I am not convinced that they are. The fouling of the streets and pavements, to say nothing of the tramway cars and other public places, with spit is a positive disgrace, and shows how much the average citizen cares for his own or his neighbour's welfare. The drunkenness, the dirt and misery, the unnecessary overcrowding of some homes, the dark evil-smelling workplaces, and the smoky atmosphere are all indications that the seriousness of the problem is not appreciated, and that the people are not pulling their weight. Unity is the first essential to success in this as in other campaigns, and until the people unite in an endeavour to eradicate these unhealthy influences there can be no real advance, and the curse will remain in the land.

An analysis of the deaths in each age group is shown on pages 74 and 76, and the distribution of deaths from pulmonary tuberculosis in the various wards of the City on page 75.

The following tables show 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 ..	1	7	63	95	91	95	72	35	19	478
Females ..	..	2	65	115	95	75	22	14	1	389
Totals ..	1	9	128	210	186	170	94	49	20	867

## NON-PULMONARY.

Ages.	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total.
Males ..	10	16	59	16	11	6	1	1	2	122
Females ..	2	21	52	22	6	5	3	1	..	112
Totals ..	12	37	111	38	17	11	4	2	2	234

## TUBERCULOSIS.

YEAR.	DEATHS.						NOTIFICATIONS.					
	Pulmonary tuberculosis.		Non-pulmonary tuberculosis.		All forms tuberculosis.		Pulmonary tuberculosis.		Non-pulmonary tuberculosis.		All forms tuberculosis.	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Cases.	Case-rate.	Cases.	Case-rate.	Cases.	Case-rate.
1911*	558	1.26	273	0.61	831	1.87	936	2.11	..	..	..	..
1912†	571	1.28	206	0.46	777	1.74	1,444	3.24	..	..	..	..
1913‡	557	1.20	250	0.54	807	1.74	1,479	3.18	..	..	..	..
1914	569	1.24	213	0.47	782	1.71	1,310	2.86	307	0.67	1,617	3.53
1915	651	1.42	230	0.50	881	1.92	1,068	2.33	312	0.68	1,380	3.01
1916	695	1.56	268	0.60	963	2.16	1,029	2.31	320	0.72	1,349	3.03
1917	674	1.54	280	0.64	954	2.18	1,081	2.47	336	0.77	1,417	3.24
1918	705	1.65	257	0.60	962	2.25	1,238	2.90	241	0.56	1,479	3.46
1919	542	1.26	177	0.41	719	1.67	1,076	2.50	208	0.48	1,284	2.98
1920	552	1.23	146	0.33	698	1.56	962	2.14	209	0.47	1,171	2.61
1921	519	1.11	122	0.26	641	1.37	867	1.86	234	0.50	1,101	2.36

\* Pulmonary tuberculosis.—Poor law cases only made compulsorily notifiable in 1911.

† Do. All cases made compulsorily notifiable in 1912.

‡ Tuberculosis.—All forms made compulsorily notifiable in 1913.

## PULMONARY TUBERCULOSIS.

YEAR.	MALES.		FEMALES.		TOTAL.	
	Deaths.	Death rate.	Deaths.	Death rate.	Deaths.	Death rate.
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
1915	386	1.78	265	1.09	651	1.42
1916	412	..	283	..	695	1.56
1917	378	..	296	..	674	1.54
1918	369	..	336	..	705	1.65
1919	295	..	247	..	542	1.26
1920	316	..	236	..	552	1.23
1921	284	..	235	..	519*	1.11

\* Of the 519 deaths, 185 occurred in Institutions.

## PHTHISIS. DEATHS AT VARIOUS AGES.

1921.	-5	5-10	10-15	15-20	20-25	25-45	45-65	65+	Total.
Males ..	5	..	3	21	22	128	86	19	284
Females	4	4	11	45	44	96	27	4	235
TOTALS	9	4	14	66	66	224	113	23	519

## PHTHISIS DEATHS IN WARDS.

WARD.	Deaths.	Rate per 1000 Population.	WARD.	Deaths.	Rate per 1000 Population.
Central ..	31	2·43	Mill Hill ..	7	1·30
North ..	48	1·11	West .. ..	33	1·47
North-East ..	52	1·42	North-West ..	41	1·28
New Ward ..	3	0·38	Brunswick ..	21	0·86
East .. ..	54	1·51	New Wortley	18	1·00
South ..	22	1·69	Armley and Wortley ..	37	0·99
East Hunslet	36	1·04	Bramley ..	18	0·75
West Hunslet	34	0·93	Headingley ..	35	0·69
Middleton ..	..	..			
Holbeck ..	29	0·97	Total ..	519	1·11

The distribution of deaths from non-pulmonary tuberculosis according to site of disease, age and sex are given in the following tables.

NON-PULMONARY TUBERCULOSIS. DEATHS.

1921.	Tubercular meningitis.	Abdominal.	Bones and Joints.	Other tuberculosis.	Total.
Males ..	11	26	4	12	53
Females ..	28	16	6	19	69
Totals ..	39	42	10	31	122

AGES AT DEATH.

Ages.	-5	5-10	10-15	15-20	20-25	25-45	45-65	65+	Total.
Males ..	27	4	4	6	2	2	5	3	53
Females	30	13	5	5	1	6	6	3	69
Totals ..	57	17	9	11	3	8	11	6	122

**Institutional Treatment.**—As has already been mentioned, the Leeds Tuberculosis Scheme includes three sanatoria and one central dispensary. The sanatoria are Killingbeck 168 beds, Armley House 57 beds, and Gateforth 50 beds, making a total of 275 beds, which with 20 beds at the Marguerite Home, Thorparch makes a total of 295 beds for all forms of Tuberculosis. Particulars of the work of these various institutions are set out in the subjoined tables. The beds at the various sanatoria are allocated as follows :—Killingbeck 60 females, 88 males and 20 children ; Armley House 57 females ; Gateforth 15 females and 35 males. Gateforth is being developed on special lines as indicated on page 70, and when completed will be a valuable adjunct to the Scheme.

PULMONARY TUBERCULOSIS FOR YEAR ENDED  
31ST DECEMBER, 1921.

KILLINGBECK SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Remaining Jan. 1st, 1921..	7	56	12	42	117
Admitted .. .. .	48	283	43	150	524
Discharged .. .. .	46	220	37	122	425
Died .. .. .	1	37	3	31	72
Remaining Dec. 31st, 1921	8	82	15	39	144

Average length of stay, 76 days.

ANALYSIS OF CASES DISCHARGED.

KILLINGBECK SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Disease arrested .. .. .	34	86	20	42	182
„ improved .. .. .	10	94	12	50	166
„ not improved .. .. .	2	40	5	30	77
TOTALS .. .. .	46	220	37	122	425

Restoration of working capacity—	Males.	Females.	Total.
100 per cent. approximately ..	72	35	107
80 „ „ ..	88	24	112
60 „ „ ..	24	11	35
40 „ „ ..	31	35	66
20 „ „ ..	9	19	28
10 „ „ ..	..	..	..
TOTALS .. .. .	224	124	348

NON-PULMONARY TUBERCULOSIS FOR YEAR ENDED  
31ST DECEMBER, 1921.

KILLINGBECK SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Remaining Jan. 1st, 1921..	3	3	3	3	12
Admitted .. .. .	7	9	6	6	28
Discharged .. .. .	9	10	5	7	31
Died .. .. .	..	..	..	2	2
Remaining Dec. 31st, 1921	1	2	4	..	7

Average length of stay, 129 days.

ANALYSIS OF CASES DISCHARGED.

KILLINGBECK SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Disease arrested .. .. .	..	..	..	..	..
.. improved .. .. .	8	10	5	4	27
.. not improved .. .. .	1	..	..	3	4
TOTALS .. .. .	9	10	5	7	31

Restoration of working capacity—	Males.	Females.	Total.
100 per cent. approximately ..	3	5	8
80 .. .. .	9	..	9
60 .. .. .	..	4	4
40 .. .. .	4	..	4
20 .. .. .	2	..	2
10 .. .. .	..	..	..
TOTALS .. .. .	18	9	27

PULMONARY TUBERCULOSIS FOR YEAR ENDED  
31st DECEMBER, 1921.

ARMLEY HOUSE SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Remaining Jan. 1st, 1921..	..	40	..	..	40
Admitted .. .. .	17	96	4	41	158
Discharged .. .. .	15	117	1	20	153
Died .. .. .	2	19	1	1	23
Remaining Dec. 31st, 1921	..	..	2	20	22

Average length of stay, 65 days.

ANALYSIS OF CASES DISCHARGED.

ARMLEY HOUSE SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Disease arrested .. .. .	..	..	..	..	..
.. improved .. .. .	15	101	1	17	134
.. not improved .. .. .	..	16	..	3	19
TOTALS .. .. .	15	117	1	20	153

During the year 53 males and 10 females had pneumothorax treatment as in-patients and in addition 45 persons attended as out-patients to have the treatment repeated. For this purpose the out-patients made a total of 120 visits.

NON-PULMONARY TUBERCULOSIS FOR YEAR ENDED  
31st DECEMBER, 1921.

ARMLEY HOUSE SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Remaining Jan. 1st, 1921..	..	2	..	..	2
Admitted .. .. .	6	6	1	8	21
Discharged .. .. .	6	8	..	..	14
Died .. .. .	..	..	..	..	..
Remaining Dec. 31st, 1921	..	..	1	8	9

Average length of stay, 120 days.

ANALYSIS OF CASES DISCHARGED.

ARMLEY HOUSE SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Disease arrested .. ..	5	3	..	..	8
„ improved .. .. .	1	4	..	..	5
„ not improved .. ..	..	1	..	..	1
TOTALS .....	6	8	..	..	14

PULMONARY TUBERCULOSIS FOR YEAR ENDED  
31ST DECEMBER, 1921.

GATEFORTH SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Remaining Jan. 1st, 1921	..	28	..	8	36
Admitted .. .. .	3	103	1	60	167
Discharged .. .. .	2	96	1	56	155
Died .. .. .	..	..	..	..	..
Remaining Dec. 31st, 1921	1	35	..	12	48

Average length of stay, 81 days.

ANALYSIS OF CASES DISCHARGED.

GATEFORTH SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Disease arrested .. ..	1	14	..	..	15
.. improved .. ..	1	65	1	42	109
.. not improved .. ..	..	17	..	14	31
TOTALS .. ..	2	96	1	56	155

Restoration of working capacity—	Males.	Females.	Total.
100 per cent. approximately ..	26	5	31
80 .. ..	42	13	55
60 .. ..	11	12	23
40 .. ..	6	6	12
20 .. ..	4	6	10
10 .. ..	7	7	14
TOTALS .. ..	96	49	145

*Accommodation for Children.*—Children suffering from tuberculosis of a surgical type have been accommodated at the Marguerite Home, Thorparch, and at the Lord Mayor Treloar's Hospital, Alton, Hampshire. At the former 20 beds are reserved for Leeds cases whilst at the latter, cases accepted as vacancies occur. The number of cases admitted to the Marguerite Home, Thorparch, during the year was 20 and to the Lord Mayor Treloar's Hospital nine. The period of residence in both institutions varies, depending on the nature and the extent of the disease. Some of the children are absent from home for as long a period as eighteen months whilst in other cases the treatment is complete in nine or twelve months. I mention this fact as indicating a very important difficulty which arises in connection with the treatment of surgical tuberculosis. As a rule they are long cases ; they may take from eighteen months to two years and even longer to ensure a satisfactory result. The significance of this is that the number of beds provided for this form of the disease in children must bear a very much larger ratio to population than is the case with the pulmonary form. In Leeds there is an undoubted need for increasing the accommodation for the treatment of cases of non-pulmonary or surgical tuberculosis.

*Central Dispensary.*—There has been no change in the work of this institution during the year, except that it was increased to some extent by the closing of the Tuberculosis section of the National Health Insurance Committee. The accommodation provided in the present premises is far too small for efficient work and I am not altogether satisfied that the work is organised as well as it might be. For one thing the medical service is not adequate. A city of this size should have at least three whole-time medical officers instead of as at present one and a half.

Details of the Dispensary work are given opposite.

*Care Work.*—The agreement between the Corporation and the Tuberculosis Association provides for the latter body constituting itself a Care Committee and devoting such funds as it possesses for the promotion of this very important and essential part of preventive work. In fulfilment of the terms of the agreement the Association has surrendered its old title and assumed the new title of "Leeds Association for the Care of the Consumptive."



It has set up a Care Committee and appointed officers and sub-committees to carry out the details of the work. The Corporation provide office accommodation and clerical assistance at Great George Street Dispensary, and a special nurse visitor is supplied for making the necessary investigations into the social conditions of applicants for assistance, and keeping the records. To this Committee all matters relating to the supply of extra nourishment, the provision of artificial limbs and other surgical appliances, arrangements for convalescence, the securing of suitable employment for healed cases, the supply of beds and bedding, air-cushions, bedrests, etc., are referred. Since the Committee was empanelled much good work has been done and even more might have been attempted had the times been more propitious.

Below are details of the year's work.

*Cases Assisted.*—Thirty-one children were sent to seaside and country homes for periods varying from three to eight weeks through the agency of the Children's Convalescent and Summer Holiday Fund. The parents contributed as far as possible in every case, and every application was accompanied by a medical certificate certifying the patient as non-infective.

Fourteen adults were sent for convalescent treatment to various homes for periods varying from one to three months, at a cost of about £1 1s. weekly, the patient paying part or whole cost where possible.

Five persons were helped to employment.

Seventy-six persons were supplied with extra nourishment in the form of milk, eggs and ovaltine.

Nine persons were given clothing.

Three persons were supplied with sick room necessaries in the shape of air rings, extra beds and bedding, etc.

Six persons were supplied with, or received a grant in aid of the purchase of, medical appliances in the form of artificial teeth, glasses, etc.

Six mothers and fathers were helped to find homes for their children during the time they were absent in a sanatorium.

On the 1st January, 1922, the following cases were on the books :—

- 55 receiving extra nourishment.
- 36 receiving convalescent treatment.
- 5 receiving financial assistance.
- 12 others being helped in various ways.

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*Visits and Interviews.*—The Secretary has interviewed and made special visits to 1,309 persons.

*Meeting of Committee.*—The Committee has met 27 times during the year and has considered and decided 782 cases.

## **MATERNITY AND CHILD WELFARE.**

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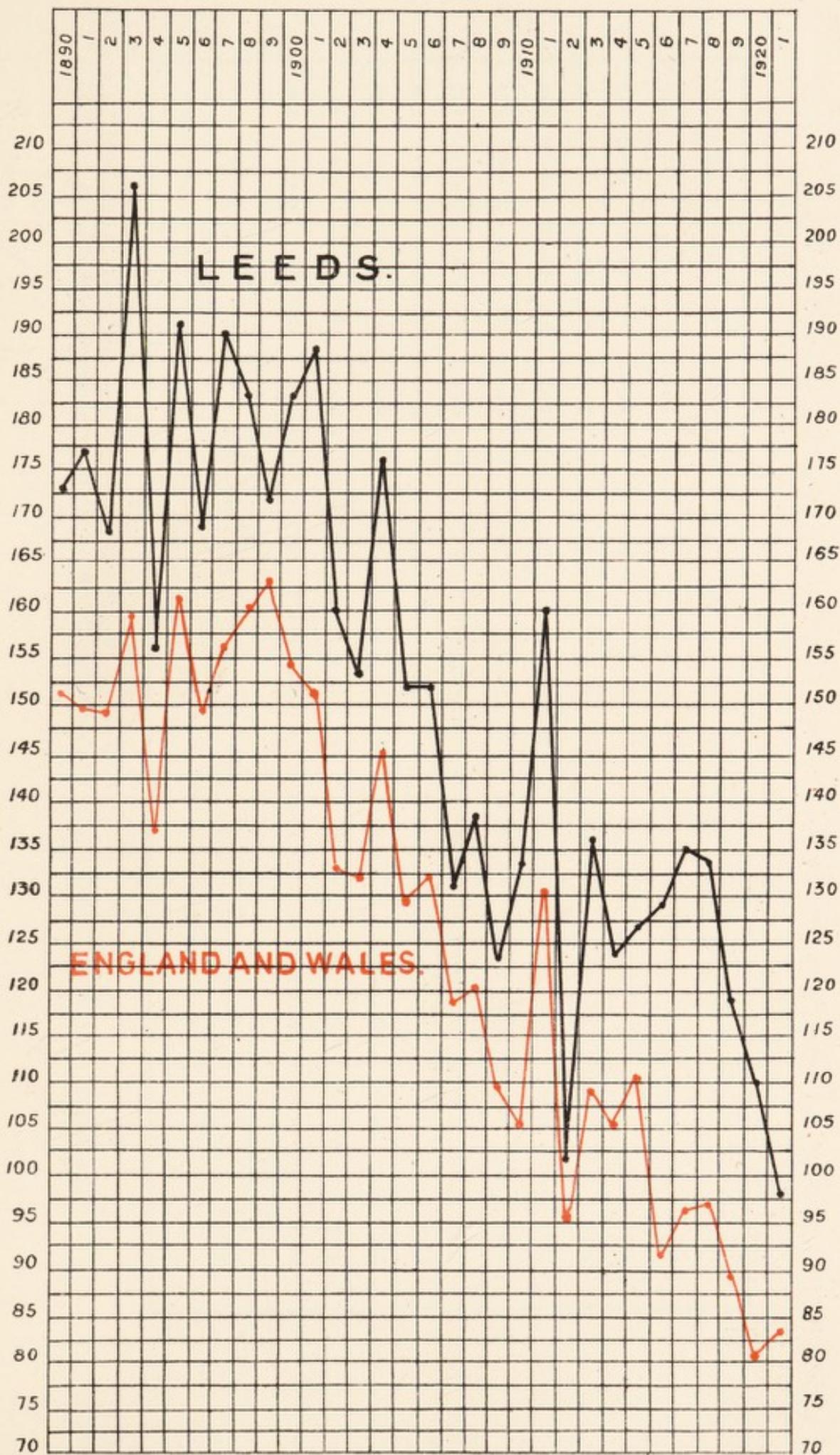
**Statistics.**—The nett number of births for the year 1921 was 10,144, a decrease of 1,085 on the total for the previous year. Of these 565 (or 5·6 per cent.) were illegitimate. The total number of deaths of infants under one year was 997 which is equal to a death-rate of 98 per thousand births, a decrease of 12 on the rate for last year which was 110. This is the lowest infant mortality rate ever recorded in the history of the City, the nearest approach to it being in 1912 when the rate was 102. This happy result may be attributed to the fine weather in the early part of the year which reduced the deaths from respiratory diseases, usually numerous in the first quarter of the year, to a very low figure. Indirectly, it may also be said that the absence of smoke during the three months of the miners' strike, from April to July, had a beneficent influence. If one compares the amount of infantile disease in the first half of the year with that of previous years it will readily be noted how marked is the difference. The group of diseases

in which the difference is most pronounced is, as one would expect, the respiratory group, because it is the diseases which effect the chest which are most influenced by atmospheric conditions. In order to emphasize this decrease in the infantile sickness during the first two quarters of the year I have had the figures set out in a table which is attached to the usual table showing the infantile death-rate in quarters.

It is necessary when discussing the infantile mortality for the year to allude to the effects which the long spell of hot dry weather had upon the incidence of summer diarrhœa. It was generally anticipated that 1921 would be a repetition of 1911 as far as diarrhœa mortality was concerned. Happily our fears proved groundless, and whilst conditions were favourable for a serious outbreak of summer diarrhœa, the number of deaths certified as due to this cause showed when compared with previous cool years only a moderate increase, and with previous warm years a very considerable decrease. A comparison of the number of deaths certified as due to diarrhœa and enteritis in the third quarter of 1921 with the figure for the same period in 1911 bears out this statement—in the third quarter of 1911 the death-rate from diarrhœa and enteritis under two years was 190·2 per 1,000 births, whilst last year it was 41·5. A certain amount of credit for this favourable result is undoubtedly due to the better sanitary conditions which exist to-day, as well as the better observance of the laws of health by the people as a whole. But whilst that may be true one must also recognise that a great part of the credit must go to the efforts which have been made in recent years to instruct parents in the proper methods of feeding and caring for their children, and to the general knowledge of mothercraft which has been disseminated through the agency of the Maternity and Child Welfare Institutions. There will be those who will traverse this statement and insist that all the credit is due to a higher standard of municipal sanitation. One can only say in respect to such that their attitude of mind betokens a lack of knowledge of the true facts which does not qualify them to be judges in such an important matter.

Particulars of the infantile mortality rate for the year and for the last ten years, and of the infantile mortality rate in wards are given on pages 87 and 88.

# INFANT MORTALITY PER 1000 BIRTHS, 1890 - 1921.





INFANTILE MORTALITY DURING THE ELEVEN YEARS 1911-1921 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.
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	10,652	277	26.0	455	42.7	236	22.2	252	23.7	201	18.9	180	16.9	1,324	124
1915	9,877	258	26.1	413	41.8	194	19.6	242	24.5	205	20.8	199	20.1	1,253	127
1916	9,432	247	26.2	437	46.3	220	23.3	234	24.8	156	16.5	169	17.9	1,216	129
1917	7,566	179	23.6	318	42.0	185	24.4	213	28.1	159	21.0	148	19.5	1,023	135
1918	7,392	189	25.6	316	42.7	154	20.8	199	26.9	175	23.7	140	18.9	984	133
1919	7,564	230	30.4	373	49.3	147	19.4	156	20.6	125	16.5	98	13.0	899	119
1920	11,229	304	27.1	520	46.3	260	23.2	191	17.0	146	13.0	115	10.2	1,232	110
1921	10,144	249	24.5	419	41.3	184	18.1	180	17.7	116	11.4	98	9.7	997	98

INFANTILE MORTALITY IN WARDS AT DIFFERENT PERIODS OF THE FIRST YEAR OF LIFE,  
CALENDAR YEAR, 1921.

WARD.	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.
Central ..	291	5	17.2	6	20.6	1	3.4	3	10.3	4	13.7	1	3.4	15	52
North ..	852	19	22.3	25	29.3	10	11.7	18	21.1	10	11.7	10	11.7	73	86
North-East ..	890	28	31.5	42	47.2	24	27.0	11	12.4	10	11.2	10	11.2	97	109
*New Ward ..	110	3	27.3	4	36.4	3	27.3	1	9.1	..	..	..	..	8	73
East ..	1,000	22	22.0	37	37.0	22	22.0	24	24.0	11	11.0	12	12.0	106	106
South ..	405	15	37.0	25	61.7	11	27.2	11	27.2	11	27.2	4	9.9	62	153
East Hunslet ..	863	16	18.5	31	35.9	16	18.7	15	17.4	10	11.6	10	11.6	82	95
West Hunslet ..	701	26	37.1	36	51.4	11	15.7	12	17.1	5	7.1	6	8.6	70	100
Middleton ..	29	1	34.5	1	34.5	2	69.0	..	..	1	34.5	..	..	4	138
Holbeck ..	748	20	26.7	37	49.5	12	16.0	16	21.4	12	16.0	14	18.7	91	122
Mill Hill ..	90	4	44.4	5	55.6	2	22.2	2	22.2	..	..	1	11.1	10	111
West ..	506	11	21.7	20	39.5	10	19.8	13	25.7	9	17.8	11	21.7	63	125
North-West ..	616	8	13.0	21	34.1	8	13.0	8	13.0	2	3.2	3	4.9	42	68
Brunswick ..	464	9	19.4	13	28.0	13	28.0	8	17.2	2	4.3	1	2.2	37	80
New Wortley ..	455	12	26.4	23	50.5	6	13.2	7	15.4	4	8.8	3	6.6	43	95
Armley & Wortley ..	745	16	21.5	28	37.6	13	17.4	5	6.7	10	13.4	3	4.0	59	79
Bramley ..	447	12	26.8	16	35.8	4	8.9	7	15.7	3	6.7	3	6.7	33	74
Headingley ..	932	22	23.6	49	52.6	16	17.2	19	20.4	12	12.9	6	6.4	102	109
CITY ..	10,144	249	24.5	419	41.3	184	18.1	180	17.7	116	11.4	98	9.7	997	98

\* Roundhay, Seacroft, Shadwell and Crossgates.

*Death-rate in Quarters.*—The infantile mortality rate for the four quarters of the year is given in the accompanying tables, from which it will be seen that the first and second quarters are abnormally low whilst the third and fourth quarters are only slightly higher than the lowest for the third and fourth quarters of the four previous years.

	I.	II.	III.	IV.	Year.
1917 .. ..	121	122	152	151	135
1918 .. ..	162	101	114	155	133
1919 .. ..	173	102	123	96	119
1920 .. ..	139	95	88	112	110
1921 . . .	108	78	101	108	98

RESPIRATORY DISEASES, DEATH-RATES UNDER ONE YEAR  
PER 1,000 BIRTHS, 1917-1921.

	I.	II.	I. & II.	III.	IV.	III. & IV.	Year.
1917	30.9	33.5	32.1	14.0	37.6	25.6	29.1
1918	33.8	14.5	24.2	7.8	59.2	33.0	28.7
1919	74.3	15.3	43.5	7.9	15.5	12.3	24.7
1920	48.4	15.7	33.3	6.0	16.2	10.8	23.2
1921	34.6	9.2	21.7	8.8	23.9	16.1	18.9

*Deaths in Age Groups.*—Of the total infant deaths 249 (or 25.0 per cent.) took place in the first week of life, 419 (or 42.0 per cent.) in the first month, 184 (or 18.5 per cent.) between one and three months, 180 (or 18.1 per cent.) between three and six months, 116 (or 11.6 per cent.) between six and nine months, and 98 (or 9.8 per cent.) between nine and twelve months.

The percentage changes in the infant death-rate in 1921 as compared with the average of the previous ten years are as follows :—

Under 1 week, decrease	5.3%	3-6 months, decrease ..	24.3%
Under 1 month ..	5.2%	6-9 .. ..	39.3%
1-3 months .. ..	19.6%	9-12 .. ..	42.7%
Whole year decrease, 22.8%			

*Neo-natal Death Rate.*—The number of deaths of infants occurring in the first month of life (419) was slightly less than for 1920 (520) and the corresponding rate 41·3 was less by 5·0 than the rate for 1920 which was 46·3. In this connection it is interesting to note that the neo-natal rate for 1921 was the same as that for 1912, which, as already stated, is the only year wherein the infantile mortality rate anywhere approached the rate of 1921.

*Causes of Infant Death.*—The chief causes of infant death were as follows :—

DEATHS FROM STATED CAUSES UNDER ONE YEAR OF AGE.

Causes of death.	Year 1920.	Year 1921.	Increase or decrease.	Percentage of total deaths under one.
Smallpox .. .. .	..	..	..	..
Chickenpox .. .. .	..	..	..	..
Measles .. .. .	30	..	-30	..
Scarlet Fever .. .. .	1	..	- 1	..
Whooping Cough .. .. .	31	21	-10	2·1
Diphtheria and Croup .. .. .	4	4	+—	0·4
Influenza .. .. .	8	7	- 1	0·7
Erysipelas .. .. .	..	4	+ 4	0·4
Tuberculous Diseases .. .. .	28	20	- 8	2·0
Meningitis .. .. .	12	9	- 3	0·9
Convulsions .. .. .	95	71	-24	7·1
Laryngitis .. .. .	..	1	+ 1	0·1
Bronchitis .. .. .	115	81	-34	8·1
Pneumonia (all forms) .. .. .	130	99	-31	9·9
Diarrhœa and Enteritis .. .. .	127	157	+30	15·7
Gastritis .. .. .	15	17	+ 2	1·7
Syphilis .. .. .	59	44	-15	4·4
Rickets .. .. .	5	3	- 2	0·3
Suffocation, overlying .. .. .	6	11	+ 5	1·1
Injury at birth .. .. .	34	26	- 8	2·6
Atelectasis .. .. .	29	22	- 7	2·2
Congenital Malformations .. .. .	40	37	- 3	3·7
Premature birth .. .. .	255	207	-48	20·8
Atrophy, Debility, and Marasmus .. .. .	133	108	-25	10·8
Other Causes .. .. .	75	48	-27	4·8
Totals .. .. .	1,232	997	-235	100

It will be observed that in order of numerical importance premature birth, diarrhoea and enteritis, marasmus, pneumonia and bronchitis are responsible for the greatest number of deaths. In my last report I had to deplore the large number of premature births, and whilst the number certified as due to this cause in 1921 shows a reduction of 48 on the 1920 figures, it is still much too high. To have to admit that as much as 20·8 per cent. of the total deaths of children under one year is due to prematurity is very humiliating and makes one feel how much there is still to be done in the maternity section of the scheme which deals with the conditions responsible for these deaths. I am convinced that if every doctor and every midwife took as much interest in the ante-natal welfare of the mother as they do in the post-natal, the number of deaths from this cause would very soon diminish; and if greater care were taken by parents to see that their girls understood the duties which would be expected of them when they undertook the responsibility of married life there would be less tendency for them to take risks.

I have already touched upon the effect of the fine weather experienced during the year on the incidence of respiratory diseases amongst young children, which has never been lower in any previous period of the City's history. This goes to show that the infantile mortality rate is closely bound up with climatic conditions as well as the purity of the atmosphere inside and outside the home.

For further particulars with regard to diarrhoea and enteritis see page 54.

*Illegitimate Death-rate.*—Out of a total of 565 illegitimate births 120 (or 21·2 per cent.) died before reaching the age of one year, as compared with 631 births and 160 deaths (or 25·4 per cent.) on 1920. The illegitimate death-rate per thousand births was 212, a decrease of 42 on the figure for last year. Whilst there is some encouragement to be derived from the fact that the rate has fallen, one cannot but feel that the wastage of life is still far above what it ought to be. That there should be such a marked difference between the death-rate of illegitimate children, 212 and legitimate 92, is a reflection alike on the social and public health system of

this country. Even the illegitimate child, unwanted though it be, has nevertheless as much right to life as the legitimate, and it is the duty of society to see that it is not deprived of that right. A blot such as the illegitimate death-rate surely cannot be allowed to stain the good record of a people known for their charitableness and sympathy with those in trouble, and one hopes that it may be possible in the near future to discover some means of preserving a larger number of the lives of these unfortunates.

Two institutions in Leeds—St. Christopher's Home and the Red House Residential Nursery accept children of this class and care for them until such time as they can be satisfactorily provided for either by their own parents or by foster parents.

Three other institutions, St. Faith's Home, St. Margaret's Home and Spring Grove House (Salvation Army) provide accommodation for unmarried mothers during the expectant period and until such time after childbirth as they are able to return to their usual employment. Only one of these homes actually undertakes the confinement of the expectant mother. Lying-in cases from the other two are transferred to the Maternity Hospital and kept there until the lying-in period is over. It may also be added that the Day Nurseries accept illegitimate children and look after them whilst the mothers are at work.

Statistics relating to the Red House Residential Nursery are given on page 109.

## BIRTHS AND DEATHS UNDER ONE YEAR WITH RATES.—CALENDAR YEAR 1921.

WARD.	TOTAL BIRTHS (nett).	Birthrate per 1,000 population.	No. of legitimate births.	No. of illegitimate births.	Total deaths under one year (nett).	Death rate per 1,000 births.	No. of legitimate deaths under one year.	Legitimate death rate per 1,000 legitimate births.	No. of illegitimate deaths under one year.	Illegitimate death rate per 1,000 illegitimate births.
Central	291	22.85	265	26	15	52	12	45	3	115
North	852	19.78	804	48	73	86	63	78	10	208
North-East	890	24.33	838	52	97	109	84	100	13	250
*New Ward	110	13.86	107	3	8	73	8	75	—	—
East	1,000	27.93	961	39	106	106	95	99	11	282
South	405	31.12	371	34	62	153	57	154	5	147
East Hunslet	863	24.90	815	48	82	95	70	86	12	250
West Hunslet	701	19.10	680	21	70	100	69	101	1	48
Middleton	29	24.79	29	—	4	138	4	138	—	—
Holbeck	748	25.02	708	40	91	122	81	114	10	250
Mill Hill	90	16.75	79	11	10	111	8	101	2	182
West	506	22.61	462	44	63	125	54	117	9	205
North-West	616	19.23	572	44	42	68	33	58	9	205
Brunswick	464	19.08	434	30	37	80	31	71	6	200
New Wortley	455	25.19	428	27	43	95	39	91	4	148
Armley & Wortley	745	19.94	712	33	59	79	50	70	9	273
Bramley	447	18.74	430	17	33	74	30	70	3	176
Headingley	932	18.44	884	48	102	109	89	101	13	271
CITY	10,144	21.79	9,579	565	997	98	877	92	120	212

\*Roundhay, Seacroft, Shadwell and Crossgates.

### SUPERVISION OF MIDWIVES.

**Number of Midwives.**—The number of midwives on the register on December 31st, 1920, was 76. Twenty-six new names were added during the year, 24 names were removed, leaving a total on the register on December 31st, 1921, of 78. Of the total, 36 were attached to institutions and eight trained and one not trained took no cases during the year. The actual number who took cases during the year was 82, of whom 61 (or 74·4 per cent.) were trained and 21 (or 25·6 per cent.) not trained. The number of births attended by midwives was 4,535 (or 43·5 per cent.) of the total births registered.

The following table gives an analysis of the cases attended by midwives :—

TRAINED.			UNTRAINED.	
61 midwives. Total cases attended .. 3,035 Average per midwife 50 cases.			21 midwives. Total cases attended .. 1,500 Average per midwife 71 cases.	
No. of Cases.	Practising on their own account.	Attached to institutions.	No. of Cases.	Practising on their own account.
Over 300	—	1	Over 300	—
" 200	—	2	" 200	1
" 150	4	—	" 150	1
" 100	4	—	" 100	5
" 75	2	3	" 75	2
" 50	2	2	" 50	2
" 25	2	2	" 25	4
" 10	4	8	" 10	3
" 5	2	8	" 5	1
Under 5	5	10	Under 5	2

Eight trained midwives and one not trained, took no cases during the year.

*Advising Medical Help.*—Notifications of having advised medical assistance were received in 1,182 cases which may be classified as follows :—

Illness during pregnancy, or abortion .. .. .	42
Malpresentation .. .. .	36
Delayed or obstructed labour .. .. .	220
Ruptured perineum.. .. .	198
Retained membrane or placenta .. .. .	30
Hæmorrhage .. .. .	33
Convulsions, eclampsia .. .. .	9
Puerperal rise of temperature .. .. .	49
Illness of mother during puerperium .. .. .	90
Illness of child .. .. .	184
Infants—discharging eyes .. .. .	113
Artificial feeding .. .. .	45
Death of infant under ten days .. .. .	13
Stillbirths .. .. .	120

*Midwives' Emergencies.*—During the year 270 claims were made by medical practitioners in the City for attendance on emergencies of labour under Section 14 of the Midwives Act, 1918. Of these 31 were paid direct by the parent whilst the remainder, 239, were settled by the Local Authority at a total cost of £183 18s. 7d.

*Inspection of Midwives.*—The inspection of midwives' bags, books and appliances was carried out regularly during the year, the total number of such inspections made being 166. In addition to these inspections, the inspector of midwives paid 146 visits. Midwives were interviewed on 48 occasions in connection with breaches of the rules of the Central Midwives Board and other minor demeanours.

*Puerperal Fever Cases.*—Cases of puerperal fever and high temperature were investigated and where the case was infectious disinfection of the midwife's person, clothing and maternity bag was carried out under the personal supervision of the chief woman inspector. The total number of visits paid for this purpose was 67 and the total number of midwives disinfected 29.

*Handywomen.*—In addition to visits paid to midwives 28 visits were paid to handywomen and five of these were disinfected.

**Still-births.**—The total number of still-births notified was 466 (or 4·5 per cent.) of the total births notified, which is a slight increase on the figure for last year which was 461 (or 4·1 per cent.)

The following table shows the comparison between live-births and still-births for the last eight years:—

BIRTHS NOTIFIED (LIVE AND STILL).

Year.	Live births notified.	Still-births notified.	Total births notified live and still.	Percentage of still-births to total births.
1914	9,738	105	9,843	1·1
1915	8,153	350	8,503	4·1
1916	7,836	394	8,230	4·8
1917	7,017	328	7,345	4·5
1918	6,892	287	7,179	4·0
1919	7,684	340	8,024	4·2
1920	10,749	461	11,210	4·1
1921	9,928	466	10,394	4·5

Notification of Births Act came into force 1st January, 1914.

Of the 466 still-births notified, 126 (or 27·0 per cent.) were by midwives, and the remainder, 340 (or 73 per cent.) by medical practitioners.

The increase though small is in the wrong direction and is all the more disquieting because it occurs on a falling birth-rate. A study of the above table shows that very little change has taken place in the number of still-births notified each year since 1915. Whilst the causes of ante-natal death are known in a general way there are no means of settling the specific cause in any particular instance. The lack of this information is a serious handicap because without it appropriate preventive measures cannot be applied. The only way of making good the omission is by the amendment of the existing law so as to make still-births compulsorily registrable, just as live births are.

**Ante-natal Work.**—The total number of expectant mothers attending the 12 ante-natal centres during the year was 1,247. Of these, 960 were new and attended for the first time, which is practically the same number as in the previous year. The total

attendances at all the centres was 7,329, a decrease of 695 compared with 8,024 for 1920. Considering the number of ante-natal deaths as well as the continued high neo-natal mortality it is unfortunate that the ante-natal clinics are not attended better. Young mothers do not yet realize the great importance of preparing themselves for the responsibilities of motherhood as well as equipping themselves with the knowledge necessary to ensure the health and well-being of themselves and their unborn babies during the ante-natal period. If preventive measures are to be of any avail whatsoever in reducing the amount of damage and death to mother and child which occur in the ante-natal and neo-natal period they must be applied as soon as possible after conception has taken place, and this is only possible if the facilities provided by the ante-natal clinics are taken full advantage of.

Particulars of the work of the ante-natal clinics are set out in the following table :—

EXPECTANT MOTHERS ON REGISTER.

Welcome.	No. on register at beginning of year.	Registered during year.	Live births.	On register end of year.	Total attendance of expectant mothers.
Ellerby Road ..	39	129	119	29	780
West Street ..	27	81	74	20	297
Burmantofts ..	35	85	72	31	933
Hunslet .. ..	30	99	101	23	771
University ..	24	62	63	15	572
Woodhouse ..	17	55	53	12	271
Holbeck .. ..	20	120	88	37	624
Armley .. ..	22	86	67	30	688
Chapelton ..	18	69	66	10	325
St. Nicholas ..	11	54	36	20	431
Bramley .. ..	16	28	26	15	593
New Wortley ..	28	92	82	31	1,044
Totals .. ..	287	960	847	273	7,329

Of the 1,247 mothers on the register 17 miscarried. Of the 847 live births 17 were premature.

**Natal Work.**—Of the total births registered in the City, 1,805 (or 17·3 per cent.) took place in institutions or nursing homes as compared with 1,645 (or 14·2 per cent.) in 1920, an increase of 160. In my last report I gave as reasons for the increasing number of births taking place outside the home, shortage of houses and consequent overcrowding in many parts of the City as well as the difficulty of getting sufficient domestic help. The same causes operated throughout 1921, and it is becoming increasingly evident that steps will have to be taken to increase the available accommodation for lying-in cases especially in the more congested areas of the City. A report on the subject is at present being considered by the Maternity and Child Welfare Committee under which certain suggestions are made for increasing the number of Maternity beds available for normal cases, which if adopted will go a long way towards meeting the need in the areas mentioned as well as relieving the pressure at the Maternity Hospital.

An analysis of the births occurring in the various lying-in institutions in the City is given in the following table:—

Institution.	No. of births.	Percentage of total registered.
Leeds Maternity Hospital .. ..	1,371	13·15
St. Faith's Home .. ..	129	1·24
Leeds Township Infirmary .. ..	72	0·69
Holbeck Township Infirmary .. ..	4	0·04
Bramley Township Infirmary .. ..	10	0·10
Hospital, H.M. Prison .. ..	2	0·02
Hope Hospital .. ..	17	0·16
Leeds General Infirmary .. ..	16	0·15
Women and Children's Hospital.. ..	13	0·12
Private Nursing Homes .. ..	171	1·64

*Illegitimate Births in Institutions.*—Of the 1,805 births which took place in institutions 408 (or 22·6 per cent.) were illegitimate. This is a decrease of 61 on the figure for last year.

**Post-natal Work.**—The number of births notified during the year (exclusive of still-births) was 9,928 (or 95·2 per cent.) of the total births registered.

**Home Visiting.**—First visits were paid by the health visitors to 9,840 infants. The number of re-visits was 54,031 which together with first visits makes a total of 63,871 visits for the year.

A complete summary of the work of the health visiting staff is appended :—

	VISITS.
Notified births including revisits ..	63,871
Ophthalmia neonatorum .. ..	371
Measles .. .. .	431
Pneumonia .. .. .	549
Medical Aid and Milk .. ..	726
Other Cases .. .. .	2,333
Expectant mothers .. .. .	1,082

**Infant Welfare Centres.**—The work of the twelve centres has continued to grow during the year. The number of new babies admitted was 4,742 as compared with 5,042 the previous year, a decrease of 300. The critical period in infant life, it is generally conceded, is the first three months, and it is gratifying to note that 3,495 (or 73·7 per cent.) of the new names registered were infants under three months. It is also a matter of congratulation that such a large percentage (46·7) of the total births attend the centres, though one would like to see an improvement even on this figure. The greater the number of mothers and babies taking advantage of the centres, the lower will be the infantile mortality; and what is more important even than that, the damage. We are apt to stress mortality too much and to forget that after all the living are more important than the dead, and that a living deformed or defective child is a greater calamity even than a dead child. It is well that people should be reminded that the Maternity and Child Welfare effort is directed not only to the saving of life but to the saving of health. If this fact were more clearly understood by parents they would lose no time in seeking to learn all they could with regard to the care and management of young children.

*Congestion at the Centres.*—During the year, owing to congestion at the centres, additional sessions were instituted at Burmantofts, Hunslet, Bramley and Holbeck centres. At three centres, Ellerby Road, Burmantofts and Hunslet, one session a week has been set apart for new babies only and in this way overcrowding has been diminished and the necessity for mothers having a long wait before being attended to diminished.

## BABIES UNDER ONE REGISTERED DURING YEAR 1921.

WELCOME.	0-1 month.	1-3 months.	3-6 months.	6-12 months.	Total.
Ellerby Road	122	169	56	37	384
West Street ..	182	281	88	78	629
Burmantofts ..	109	226	83	58	476
Hunslet ..	173	225	66	77	541
University ..	97	110	31	30	268
Woodhouse ..	64	152	40	39	295
Holbeck ..	251	218	104	74	647
Armley ..	80	202	54	52	388
Chapelton ..	86	132	48	57	323
St. Nicholas ..	142	102	33	38	315
Bramley ..	38	105	30	20	193
New Wortley..	124	105	30	24	283
Totals ..	1,468	2,027	663	584	4,742

## BABIES OVER ONE REGISTERED DURING YEAR 1921.

WELCOME.	1-2 years.	2-3 years.	3-4 years.	4-5 years.	Total.
Ellerby Road	44	14	3	2	63
West Street ..	77	17	8	2	104
Burmantofts ..	45	8	6	2	61
Hunslet ..	61	31	20	2	114
University ..	35	6	1	—	42
Woodhouse ..	26	11	5	1	43
Holbeck ..	83	38	12	2	135
Armley ..	70	18	18	5	111
Chapelton ..	31	11	11	4	57
St. Nicholas ..	46	12	5	4	67
Bramley ..	22	12	5	6	45
New Wortley..	27	13	4	1	45
Totals ..	567	191	98	31	887

## ATTENDANCES MADE AT INFANT WELFARE CENTRES DURING YEAR 1921.

WELCOME.	Consultations and meetings.				Morning treatment.				
	Expectant mothers.	Mothers.	Babies under 1 year.	Babies 1—5 years.	Expectant mothers.	Mothers.	Babies under 1 year.	Babies 1—5 years.	Callers.
Ellerby Road ..	763	3,954	3,350	1,648	17	270	1,320	251	710
West Street ..	292	1,615	5,070	2,372	5	103	993	270	734
Burmantofts ..	700	3,788	3,860	2,180	233	556	1,146	590	718
Hunslet ..	662	2,660	5,212	3,602	109	793	1,130	1,208	986
University ..	425	1,251	2,929	1,354	147	508	1,889	1,117	662
Woodhouse ..	210	1,652	3,295	1,547	61	102	477	249	303
Holbeck ..	570	1,194	6,556	2,964	54	95	1,243	873	1,144
Armley ..	468	2,407	3,959	2,393	220	890	1,410	2,251	1,204
Chapelton ..	243	1,228	3,102	950	82	178	611	512	770
St. Nicholas ..	243	2,426	2,932	1,459	188	355	1,075	2,208	1,121
Bramley ..	346	1,403	2,298	1,655	247	627	1,612	830	277
New Wortley ..	635	1,925	3,095	1,563	409	631	1,414	1,640	565
Totals ..	5,557	25,503	45,658	23,687	1,772	5,108	14,320	11,999	9,194

## HOME VISITS PAID BY CLINIC NURSES DURING YEAR 1921.

WELCOME.	Babies under 1 year.	Babies 1—5 years.	Odd Visits.	Total Visits.	Expectant Mothers.	Total Visits to both.
Ellerby Road ..	238	276	2	516	105	621
West Street ..	427	1,237	27	1,691	111	1,802
Burmantofts ..	425	534	44	1,003	396	1,399
Hunslet ..	48	690	13	751	54	805
University ..	160	135	16	311	67	378
Woodhouse ..	757	650	274	1,681	134	1,815
Holbeck ..	91	361	10	462	46	508
Armley ..	106	306	9	421	42	463
Chapelton ..	135	245	147	527	73	600
St. Nicholas ..	12	112	7	131	2	133
Bramley ..	828	445	90	1,363	212	1,575
New Wortley ..	116	283	27	426	159	585
Totals ..	3,343	5,274	666	9,283	1,401	10,684

*Infant Consultations.*—The average number of infant consultations at each centre is three per week, and in addition clinics are held at all the centres every morning for the treatment of minor ailments so that the centres are kept well occupied practically during the whole of the day. Any spare time which the clinic nurses may have is devoted to the visitation of special cases which for one reason or another are unable to attend at the ordinary consultation hours.

Details of the work of the various centres will be found in the tables on pages 97, 100 and 101.

*Leeds Babies' Welcome Association.*—I cannot close this section of my report without again acknowledging the debt which I owe, indeed which the citizens owe, to the members of the Leeds Babies' Welcome Association for their untiring effort on behalf of the mothers and babies of the City.

**Milk Distribution.**—During the year it was found necessary in the interest of economy to revise the milk scheme adopted at the time of the passing of the Milk (Mothers and Children) Order, 1919. As a result it was decided to discontinue the distribution of fresh milk as from September and to confine the scheme entirely to dried milk. This was done for three reasons (1) because of easier administration—the distribution of fresh milk entails a great amount of clerical work in collecting and paying accounts, handing out receipts, etc.; the change of policy enabled the Committee to dispense with the services of one clerk, the whole of whose time had been practically taken up with work in connection with the distribution of fresh milk; (2) because of the greater certainty that the milk would be used exclusively for the benefit of the child and not given to other members of the family; (3) because of the greater safety and economy in using dried milk as compared with fresh milk, particularly in the summer and autumn seasons. The staff engaged on work in connection with the scheme at the end of the year was two milk secretaries and one clerk. During the coal strike, which began in the first quarter of the year and continued until the end of July, the distress in certain parts of the City became very marked and the question arose as to whether

it might not be necessary, to put a scheme into operation for the provision of meals to nursing and expectant mothers. The Committee debated the subject and agreed as a temporary measure to supply oatmeal in addition to milk, and for this purpose made a small grant to the Babies' Welcome Association which undertook its purchase and distribution.

#### WORK OF MILK STAFF.

	I. Quarter.	II. Quarter.	III. Quarter.	IV. Quarter.	Year.
Applications dealt with (new)	516	855	499	244	2,114
.. .. (repeat)	2,018	2,846	3,293	1,888	10,045
.. .. (refused)	60	49	50	25	184
No. of re-applications ..	..	110	125	162	397
*No. of external cases dealt with at the office ..	285	252	370	196	1,103
	2,879	4,112	4,337	2,515	13,843
No. of visits to Welcomes paid by the milk secretaries .. .. .	135	145	154	142	576

\* Persons under treatment at the Public Dispensary and the General Infirmary.

The Milk Committee has put in another strenuous year of work. It met on 50 occasions and considered no fewer than 9,332 applications, besides dealing with applications for help in other directions. The Committee is a purely voluntary one and the greatest credit is due to the members for the most efficient way in which they have carried out the work, sometimes under very trying conditions. I should like to take this opportunity of expressing my appreciation of the good work of this Committee.

Details of the work of the milk staff, including applications received and dealt with, amount of milk distributed, and a statement showing the total cost are given in the appended tables.

AMOUNT OF DRIED MILK DISTRIBUTED IN LBS. (YEAR 1921\*).

WELCOME.	Free.	Assisted.	Full Price.	TOTAL.
Ellerby Road .. ..	2,275	1,758	1,033	5,066
West Street .. ..	605	625	1,076	2,306
Burmantofts .. ..	1,483	1,164	2,206	4,853
Hunslet .. .. .	1,030	745	1,397	3,172
University .. .. .	316	365	493	1,174
Woodhouse.. .. .	386	613	1,493	2,492
Holbeck .. .. .	943	1,079	1,379	3,401
Armley .. .. .	85	1,023	1,256	2,364
Chapelton .. .. .	603	318	382	1,303
St. Nicholas .. ..	363	553	211	1,127
Bramley .. .. .	228	331	544	1,103
New Wortley .. ..	925	759	805	2,489
External .. .. .	182	100	11	293
Total .. .. .	9,424	9,433	12,286	31,143

\* Jan. 1st to Dec. 31st.

NUMBER OF RECIPIENTS (YEAR 1921\*).

WELCOME.	Free.	Assisted.	Full Price.	TOTAL.
Ellerby Road .. ..	289	148	117	554
West Street .. ..	69	85	121	275
Burmantofts .. ..	158	123	200	481
Hunslet .. .. .	113	107	130	350
University .. .. .	50	55	54	159
Woodhouse.. .. .	46	52	132	230
Holbeck .. .. .	123	136	114	373
Armley .. .. .	57	71	126	254
Chapelton .. .. .	70	29	50	149
St. Nicholas .. ..	52	92	45	189
Bramley .. .. .	32	39	73	144
New Wortley .. ..	91	71	62	224
External .. .. .	49	33	1	83
Total .. .. .	1,199	1,041	1,225	3,465

\* Jan. 1st to Dec. 31st.

## AMOUNT OF COWS MILK DISTRIBUTED IN PINTS.\*

WELCOME.	Free.	2½d. per pint.	3½d. per pint.	TOTAL.
Ellerby Road .. ..	11,339	4,215½	776	16,330½
West Street .. ..	25,379	6,998	379½	32,756½
Burmantofts .. ..	8,441	5,622	182½	14,245½
Hunslet .. ..	34,736½	5,846	498	41,080½
University .. ..	13,057½	4,445½	435	17,938
Woodhouse.. ..	7,934½	2,751½	379	11,065
Holbeck .. ..	23,042½	6,113	715	29,870½
Armley .. ..	10,085½	2,750	223	13,058½
Chapelton .. ..	13,635	2,418	592	16,645
St. Nicholas .. ..	25,200	5,963½	1,366½	32,530
Bramley .. ..	7,505	2,347½	175	10,027½
New Wortley .. ..	10,667½	2,750	380	13,797½
External .. ..	11,766½	1,551	529½	13,847
Sanitary Office .. ..	1,804	175	48	2,027
Holbeck School for Mothers	1,904½	745½	249½	2,899½
Total No. of pints ..	206,498	54,692	6,928½	268,118½

\* Jan. 1st to Sept. 30th only.

## NUMBER OF RECIPIENTS.\*

WELCOME.	Free.	2½d. per pint.	3½d. per pint.	TOTAL.
Ellerby Road .. ..	128	37	6	171
West Street .. ..	209	76	—	285
Burmantofts .. ..	110	34	10	154
Hunslet .. ..	410	64	4	478
University .. ..	165	27	2	194
Woodhouse.. ..	85	16	8	109
Holbeck .. ..	281	27	11	319
Armley .. ..	123	12	6	141
Chapelton .. ..	110	15	7	132
St. Nicholas .. ..	268	28	10	306
Bramley .. ..	73	16	8	97
New Wortley .. ..	109	28	6	143
External .. ..	197	23	5	225
Sanitary Office .. ..	95	5	1	101
Holbeck School for Mothers	28	11	4	43
Total .. ..	2,391	419	88	2,898

\* Jan. 1st to Sept. 30th only.

COST OF MILK DISTRIBUTION SCHEME FOR YEAR ENDED  
31ST DECEMBER, 1921.

INCOME.				EXPENDITURE.						
				£	s.	d.				
To cash received for sale of milk ..	2,438	12	3				By salaries and wages	665	14	5
							„ cost of dried milk	3,160	19	9
							„ Cost of cows' milk	4,842	4	0
							„ Printing, stationery, etc. ..	124	3	6
„ balance—loss	6,361	2	6				„ Sundries ..	6	13	1
	£8,799	14	9					£8,799	14	9

Nett cost per head to Corporation, £1.

### THE INFANTS' HOSPITAL, WYTHHER.

The year was seriously broken into by an outbreak of whooping cough which occurred at the Hospital and which occasioned the closure of the hospital for 58 days. Fortunately the outbreak was not attended by a large fatality, only one case died; otherwise the work of the hospital continued as usual.

Particulars of the number of cases treated, together with an analysis of the deaths which took place during the year are given below.

#### SUMMARY OF CASES TREATED IN THE INFANTS' HOSPITAL, WYTHHER, DURING THE PERIOD JANUARY 1ST—DECEMBER 31ST, 1921.

	Males.	Females.	Total.
Remaining in Hospital, January 1st, 1921 .. .. .	28	11	39
Admitted during the year ..	109	90	199
Discharged during the year ..	101	71	172
Died during the year .. ..	22	15	37
Remaining in Hospital, December 31st, 1921 .. ..	14	15	29

Mortality rate per cent. 17.7. Average stay in Hospital 61.1 days.

#### CLASSIFICATION OF ADMISSIONS ACCORDING TO AGE AND SEX.

Males.		Females.		Total Infants		Grand Total.
Under 1 year.	Over 1 year.	Under 1 year.	Over 1 year.	Under 1 year.	Over 1 year.	
49	60	39	51	88	111	199

## ANALYSIS OF DEATHS.

Cause of death.	Under 1 year.		Over 1 year.		Total.
	Males.	Females	Males.	Females	
Whooping cough .. ..	..	1	..	..	1
General tuberculosis ..	..	..	..	1	1
Syphilis .. .. .	..	2	..	..	2
Rickets .. .. .	1	1	..	..	2
Convulsions .. .. .	5	..	..	..	5
Bronchitis .. .. .	1	..	..	..	1
Spasm of pylorus .. ..	..	2	..	..	2
Diarrhœa .. .. .	2	2	1	..	5
Premature Birth .. ..	3	2	..	..	5
Debility and Marasmus ..	9	4	..	..	13
TOTALS .. .. .	21	14	1	1	37

## ANALYSIS OF CASES ADMITTED DURING 1921.

DISEASE.	Under one year.		Over one year.		TOTAL.
	Males.	Females.	Males.	Females.	
Congenital Syphilis .. ..	1	2	..	..	3
Prematurity .. .. .	1	1	..	..	2
Inmaturity .. .. .	3	2	..	..	5
Debility .. .. .	3	2	12	8	25
Bronchitis.. .. .	..	1	6	1	8
Broncho-pneumonia .. ..	..	..	1	3	4
Pneumonia .. .. .	1	1	1	..	3
Empyema .. .. .	..	1	..	4	5
Unresolved pneumonia and suspected Pulm. Tuberculosis ..	..	..	3	6	9
Pulmonary Tuberculosis ..	..	..	1	2	3
General Tuberculosis .. ..	..	2	..	..	2
Surgical Tuberculosis .. ..	..	..	1	1	2
Improper feeding .. .. .	4	4	..	2	10
Spasm of pylorus .. .. .	..	2	..	..	2
Marasmus .. .. .	24	12	..	1	37
Malnutrition .. .. .	5	3	6	1	15
Mucous disease .. .. .	..	..	..	1	1
Cœliac disease .. .. .	..	..	..	1	1
Rickets .. .. .	2	2	22	15	41
Anæmia .. .. .	..	..	1	1	2
Convulsions .. .. .	..	..	2	..	2
Gastro-enteritis .. .. .	2	2	2	..	6
Whooping Cough .. .. .	1	1	..	2	4
Influenza .. .. .	1	..	..	..	1
Cretin .. .. .	..	1	..	..	1
Minor ailments .. .. .	1	..	2	2	5
TOTALS .. .. .	49	39	60	51	199

**Day Nurseries.**—Owing to the great amount of unemployment in the City and the consequent distress resulting therefrom, the number of babies in attendance at the Day Nurseries during the year was rather below that recorded in my last report. The three nurseries at which this was most noticeable was Sundial House, Holbeck, and Burley. Cobden Place increased its attendances. Owing to the need for economy the Ministry of Health have insisted that the number of day nurseries should be reduced and the Committee have the matter under consideration at present. The work of the day nurseries for the year is set out in the accompanying table.

**Residential Nursery.**—As mentioned in my last report the new nursery in Cardigan Road was opened in February of the year under review. The applications for admission of children has been well maintained throughout the year; indeed for the first half of the year the demand exceeded the supply. There can be no doubt that an institution of this description fills a very important place in the Maternity and Child Welfare Scheme; without it many babies who have had the misfortune to be abandoned by their parents, or to be without parents by reason of death, or the children of parents who, for one reason or another, have been unable to fulfil their obligations to them, would suffer, possibly die. The number of new cases admitted was 79 as compared with 58 the previous year.

Thanks are due to the ladies who devote so much time and thought to the work of this and the Day Nurseries.

A table on the opposite page gives details of the attendances during the year.

**Convalescent Treatment for Mothers and Babies.**—During the year 66 mothers and 47 babies were sent to convalescent homes for periods varying from a fortnight to six weeks. The arrangements were carried through by the Leeds Children's Convalescent and Summer Holiday Fund at a total net cost to the Corporation of £246 15s. 9d., or an average of £1 11s. 2d. per case per week. There can be no doubt that this provision of convalescent treatment for mothers and babies is a most valuable adjunct to the Maternity and Child Welfare Scheme. The change of air and rest does incalculable good to both mothers and babies and is doubtless in

TOTAL ATTENDANCES OF RESIDENT AND DAY CHILDREN AT THE NURSERIES, IN AGE GROUPS,  
FOR THE YEAR ENDED 31ST DECEMBER, 1921.

NURSERY.	RESIDENT.				DAY.							
	WHOLE ATTENDANCES IN DAYS.				WHOLE ATTENDANCES.				HALF ATTENDANCES.			
	Under 3	3-5	Over 5	Total.	Under 3	3-5	Over 5	Total.	Under 3	3-5	Over 5	Total.
	Under 3	3-5	Over 5	Total.	Under 3	3-5	Over 5	Total.	Under 3	3-5	Over 5	Total.
Cobden Place	..	..	..	..	4,786	661	29	5,476	560	25	..	585
Sun Dial House	..	..	..	..	1,487	60	..	1,547	164	5	..	169
Holbeck	..	..	..	..	1,307	200	..	1,507	153	12	..	165
Burley	..	..	..	..	1,679	517	1	2,197	119	71	321	511
*North Hill House	553	140	..	693	..	..	..	..	..	..	..	..
†Red House	8,743	224	..	8,967	..	..	..	..	..	..	..	..
Totals	9,296	364	..	9,660	9,259	1,438	30	10,727	996	113	321	1,430

\* North Hill House—January 2nd to February 5th, 1921.

† Red House—February 6th to December, 31st, 1921.

many cases a potent factor in preventing disease. The number who benefited is small compared with the very large number of mothers and children who stand in need of this treatment, but in these days of national and local economy one has to cut one's garment according to the amount of material in hand, though it is hoped that in years to come when the financial position becomes easier, it may be possible to increase the number of beneficiaries very considerably. It may be stated that wherever possible the mother is expected to pay the whole or part of the cost of the convalescence, and it is only the very poorest for whom it is provided free of charge.

In addition 72 children under five years of age were sent for convalescence to Meanwood Convalescent Home. The duration of stay of each child in the home was three weeks and the total cost £287 3s.

#### PROPAGANDA.

Throughout the year every opportunity was taken of discussing topical events touching upon the health of the community in the lay press. It is impossible to say how much practical benefit resulted, but I am convinced in my own mind that there is no more effective way of reaching the people than through their daily newspaper. The press is, perhaps, the most powerful and most important ally which the public health service has. By means of short pithy articles written in simple language, dealing with, say, the prevalence of a certain disease in the district, directions as to how best to protect themselves and their children and prevent the outbreak assuming more serious proportions may be handed on to the public. Thus interest is aroused not only in individual health but what is even more important in that of the community. After all, no single member of the community can suffer sickness without affecting the whole body. This is a statement the truth of which is not fully enough realised, and not until local health authorities have the whole-hearted support and backing of the people themselves is it likely or possible to make much headway towards the attainment of our health ideal. By spreading knowledge and enlightenment and reducing what in the past has been obscured by abstruse and often meaningless names to simple language we might add very materially to our fighting strength and make victory more sure.

Lectures on health topics have been given to lay audiences in connection with churches, brotherhoods, adult schools, trade gatherings, etc., by members of the staff of the Public Health Department, and have undoubtedly been much appreciated.

### STAFF.

The staff of the Public Health Department now consists of 1 Medical Officer of Health, 2 Assistant Medical Officers of Health, 4 Assistant Medical Officers for Maternity and Child Welfare, 2 Clinical Tuberculosis Officers, 1 Venereal Diseases Medical Officer, 1 Veterinary Inspector, 19 Health Visitors, 13 Clinic Nurses, 13 Tuberculosis Nurses, 16 Special Inspectors, 18 Sanitary Inspectors (including 2 women), 20 Ambulance and Disinfecting Staff, 2 Milk Secretaries, 6 Dispenser Clerks, and 34 Clerks.

*Staff Changes.*—In August, Dr. R. H. H. Jolly, M.D., D.P.H., the Assistant Medical Officer of Health tendered his resignation, having accepted the post of Medical Officer of Health of Wolverhampton, and in September, H. C. Jennings, M.B., B.S., D.P.H., was appointed to fill the vacancy.

## HOUSING.

**Number of Houses.**—The total number of houses in the City on December 31st, 1921 was 114,152, which comprises 35,746 through houses and 78,406 back-to-back houses.

*Housing shortage.*—The number of applicants waiting for houses on June 29th, 1922, was 6,124.

*Overcrowding.*—Whilst one may safely say that the amount of overcrowding in the City taken as a whole has been considerably reduced during the year, it cannot be doubted that in certain districts overcrowding still exists to an extent which is inimical to health. The overcrowded houses generally speaking are to be found in the working-class areas and instances, some of them of a very distressing kind, are constantly being brought to my notice. Unfortunately, the new housing schemes afford no material assistance in solving this problem because the high rentals of the new houses are beyond the means of the majority living in the districts where most overcrowding exists. Relief therefore can only come as houses now occupied by persons able to pay the higher rents

of the new houses, are vacated and become available for those on the lower stratum. The number of overcrowded houses dealt with during the year 1921 was 79, and though 742 new houses were built and occupied in the same period, the number of applicants awaiting houses on December 31st, 1921, was 1,124 in excess of last year's figure for the same period.

*New houses.*—The total number of new houses completed and occupied during the year was 742, of which 454 were suitable for persons of the working classes and 288 were of a larger type.

A comparative statement showing the number of new houses built during the last twenty years is given below, and a table showing the total amount of work done up to the 31st March, 1922, in connection with the new Housing Schemes appears on page 113.

TABLE SHEWING THE NUMBER OF HOUSES ERECTED IN LEEDS DURING THE LAST TWENTY YEARS, ENDED 31ST MARCH, 1922.

Year.					Number of Houses.
1903	..	..	..	..	2,572
1904	..	..	..	..	2,923
1905	..	..	..	..	2,442
1906	..	..	..	..	1,748
1907	..	..	..	..	1,135
1908	..	..	..	..	919
1909	..	..	..	..	836
1910	..	..	..	..	584
1911	..	..	..	..	505
1912	..	..	..	..	350
1913	..	..	..	..	220
1914	..	..	..	..	287
1915	..	..	..	..	228
1916	..	..	..	..	146
1917	..	..	..	..	51
1918	..	..	..	..	5
1919	..	..	..	..	4
1920	..	..	..	..	7
1921	..	..	..	..	196
1922	..	..	..	..	1,048
TOTAL					16,206

TABLE SHEWING THE TOTAL AMOUNT OF HOUSING WORK  
DONE TO 31ST MARCH, 1922.

NAME OF ESTATE.	Sewers laid. Length in yds.	Roads formed, pitched and ashed. Length in yds.	No. of Houses for which Contracts have been signed.	No. of Houses upon which work has been commenced.	No. of Houses completed included in previous column.
Hawksworth Wood ..	4,436	4,996	402	402	218
Wyther House .. ..	3,857	3,974	492	484	164
Meanwood .. ..	4,394	5,298	800	610	335
Crossgates .. ..	4,018	5,190	288	278	14
Middleton .. ..	2,450	2,725	497	427	18
Ivy House .. ..	Existing	Existing	46	46	41
Section 12/3 Houses ..	Do.	Do.	398	395	282
Demonstration Houses, Meanwood .. ..	—	—	6	6	6
Totals .. ..	19,155	22,183	2,929	2,648	1,078

*Unfit houses.*—The number of houses inspected and found to be unfit for human habitation remains practically the same as it was the previous year. A certain number, 227, have been repaired and rendered fit for occupation during the year, whilst 24,291 houses which were defective in one respect or another were put in good and efficient sanitary repair. Further details of Housing Work are set out in the special table on page 114. Better housing would solve many of our health problems. New houses are wanted but the need for better houses is more urgent.

*Legal proceedings.*—Proceedings were taken under Section 253 of the Leeds Corporation (Consolidation) Act, 1905, for the recovery of £252 12s. for work done at 12 houses in Elmwood Street and Albert Grove by order of the Local Authority. The Court granted the Order on February 22nd, 1922.

**HOUSING, TOWN PLANNING, &c. ACTS, 1909, 1919, 1920, and  
THE HOUSING OF THE WORKING CLASSES ACT, 1890, Parts I. & II.**

Table showing the number of houses examined by the Medical Officer of Health as part of the general survey of the town during the year ending December 31st, 1921, and the numbers represented or otherwise dealt with, pursuant to the Housing Acts, with the corresponding figures for 1920.

	1920.	1921.
Number of new houses erected during the year :—		
(a) Total .. .. .	100	742
(b) As part of a municipal housing scheme ..	66	713
<b>1. Unfit dwelling-houses.</b>		
Inspection—(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) .. .. .	7,423	17,758
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910 .. .. .	651	591
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation .. .. .	409	322
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation ..	241	269
<b>2. Remedy of Defects without Service of formal Notices.</b>		
Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers .. .. .	201	227
<b>3. Action under Statutory Powers.</b>		
A.—Proceedings under section 28 of the Housing, Town Planning, &c. Act, 1919 ..		
(1) Number of dwelling-houses in respect of which notices were served requiring repairs ..	11	..
(2) Number of dwelling-houses which were rendered fit :—		
(a) By owners .. .. .	109	130
(b) By Local Authority in default of owners ..	11	..
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close ..	..	..
B.—Proceedings under Public Health Acts.		
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied .. .. .	25,509	28,668
(2) Number of dwelling-houses in which defects were remedied :—		
(a) By owners .. .. .	20,706	24,291
(b) By Local Authority in default of owners ..	..	..
C.—Proceedings under sections 17 and 18 of the Housing, Town Planning, &c. Act, 1909.		
(1) Number of representations made with a view to the making of Closing Orders .. .. .	..	14
(2) Number of dwelling-houses in respect of which Closing Orders were made .. .. .	..	1
(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit .. .. .	..	..
(4) Number of dwelling-houses in respect of which Demolition Orders were made .. .. .	..	..
(5) Number of dwelling-houses demolished in pursuance of Demolition Orders .. .. .	..	4

MINISTRY OF HEALTH TABLES.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1921 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 registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.		
1	2	3	4	5	6	7	8	9	10	11	12	13
1911	445,983	10,597	10,562	23.8	7,124	16.0	283	490	1,679	159	7,331	16.5
1912	447,746	10,367	10,309	23.1	6,204	13.9	275	467	1,051	102	6,396	14.3
1913	457,295	10,947	10,877	23.4	7,231	15.6	281	287	1,469	135	7,237	15.6
1914	459,260	10,749	10,652	23.3	6,874	15.0	313	324	1,324	124	6,885	15.0
1915	459,260	9,990	9,877	21.5	7,557	16.5	298	350	1,253	127	7,609	16.6
1916	446,349	9,572	9,432	21.1	6,867	15.4	302	381	1,216	129	6,946	15.6
1917	438,254	7,738	7,566	17.3	6,962	15.9	307	397	1,023	135	7,052	16.1
1918	427,589	7,609	7,392	17.3	8,452	19.8	318	395	984	133	8,529	19.9
1919	430,834	7,837	7,564	17.6	7,099	16.5	401	294	899	119	6,992	16.2
1920	448,913	11,587	11,229	25.0	6,725	15.0	417	283	1,232	110	6,591	14.7
1921	465,500	10,427	10,144	21.8	6,424	13.8	418	269	997	98	6,285	13.5

Area of District in } 28,089½  
 acres (land and  
 inland water)

Total population at all ages at the 1921 Census 458,320

Do. adjusted for the 1921 Census 465,500





TABLE IV.

INFANT MORTALITY. CALENDAR YEAR 1921. 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 .. ..	248	74	64	32	418	185	180	116	98	997
{ Uncertified .. ..	..	..	..	..	..	..	..	..	..	..
Small-pox .. .. .	..	..	..	..	..	..	..	..	..	..
Chicken-pox .. .. .	..	..	..	..	..	..	..	..	..	..
Measles .. .. .	..	..	..	..	..	..	..	..	..	..
Scarlet fever .. .. .	..	..	..	..	..	..	..	..	..	..
Whooping Cough .. .. .	..	..	..	..	..	4	6	4	7	21
Diphtheria and Croup .. .. .	..	..	..	..	..	..	..	2	2	4
Influenza .. .. .	..	..	..	..	..	1	1	3	2	7
Erysipelas .. .. .	..	..	1	..	1	1	1	1	..	4
Tuberculous Meningitis .. .. .	..	..	..	..	..	..	1	3	2	6
Abdominal Tuberculosis .. .. .	..	..	..	..	..	2	2	2	2	8
Other Tuberculous Diseases .. .. .	..	..	..	..	..	..	1	2	3	6
Meningitis (not Tuberculous) .. .. .	..	..	..	..	..	1	3	2	3	9
Convulsions .. .. .	18	12	5	2	37	14	10	6	4	71
Laryngitis .. .. .	..	..	..	..	..	1	..	..	..	1
Bronchitis .. .. .	1	6	1	..	8	20	20	18	15	81
Pneumonia (all forms) .. .. .	..	1	1	5	7	13	25	27	27	99
{ Diarrhoea .. .. .	..	2	10	5	17	34	60	30	16	157
{ Enteritis .. .. .	..	..	..	..	..	..	..	..	..	..
Gastritis .. .. .	1	2	2	..	5	6	3	1	2	17
Syphilis .. .. .	3	7	4	2	16	18	8	..	2	44
Rickets .. .. .	..	..	..	..	..	..	..	3	..	3
Suffocation, overlying .. .. .	3	1	1	..	5	5	1	..	..	11
Injury at birth .. .. .	23	1	2	..	26	..	..	..	..	26
Atelectasis .. .. .	20	..	..	..	20	2	..	..	..	22
Congenital Malformations .. .. .	13	4	7	3	27	8	1	..	1	37
Premature birth .. .. .	139	21	15	9	184	21	2	..	..	207
Atrophy, Debility and Marasmus .. .. .	22	12	13	5	52	27	22	4	3	108
Other Causes .. .. .	6	5	2	1	14	6	13	8	7	48
Totals .. .. .	249	74	64	32	419	184	180	116	98	997







