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COUNTY PALATINE OF LANCASTER.

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# REPORT

OF THE

## MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1919,

WITH STATISTICAL INFORMATION FROM REPORTS OF  
DISTRICT MEDICAL OFFICERS OF HEALTH.

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*(Presented to the County Council, November 4th, 1920.)*




COUNTY COUNCIL.

PRESTON :

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PUBLIC HEALTH AND HOUSING  
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The Chairman of the County Council :

\*Sir William Scott Barrett, Knight, D.L.

The Vice-Chairman of the County Council :

\*Sir Henry F. Hibbert, Bart., D.L.

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*Chairman of Committee :*

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*Vice-Chairman :*

\*C. J. Trimble, Esq., C.B., C.M.G.

(\* County Aldermen.)

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(1920).

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The Vice-Chairman of the County Council :

\*Sir Henry F. Hibbert, Bart., D.L.

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# REPORT OF THE MEDICAL OFFICER OF HEALTH

For the Year ended December 31st, 1919.

*To the County Council of the County Palatine of  
Lancaster.*

Mr. Chairman and Gentlemen,

I have the honour to submit for your consideration the Thirty-first Annual Report on the health, sanitary condition, and administration of the Administrative County of Lancaster, for the year ended 31st December, 1919.

The tabular statement below compares the County birth and death rates of 1919 with the preceding year and with the mean of the ten years 1909-1918:—

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth- rate.	Death- rate.	*Epidemic Death- rate.	Phthisis Death- rate.	
1919.....	16·62	14·06	0·49	0·80	93
1918.....	16·08	17·26	0·96	1·07	100
Mean of 10 years 1909-1918 .....	20·55	14·43	1·23	0·91	113
<i>Increase or Decrease</i>					
<i>in 1919 on—</i>					
<i>Previous Year</i> .....	+0·54	-3·20	-0·47	-0·27	-7
<i>Ten Years' Average</i> .....	-3·93	-0·37	-0·74	-0·11	-20

\* See footnote, page xxx.

The year under report was characterised by a marked reduction in all the County mortality rates above quoted, the epidemic death-rate and the infant mortality rate being the lowest on record. The death-rates in 1919 from enteric fever, measles, and whooping cough were below any previously recorded. The fall in the general death-rate, as compared with the year 1918, was due mainly to the decrease in the deaths from influenza and pneumonia, but notwithstanding this decline, influenza, pneumonia, and bronchitis combined accounted for almost thirty per cent. of the total deaths from all causes.



Further progress is reported with regard to the County Council's scheme of child welfare. The scheme for the diagnosis and treatment of venereal diseases has developed, and arrangements have been made under which skilled medical treatment is now available in practically every part of the County area.

Additional legislation in regard to housing was placed on the statute book during 1919, and increased responsibilities in regard to housing are placed upon local Sanitary Authorities. The progress of new housing schemes in the County Area is reported in Table H.

Special reports received during 1919 from district Medical Officers of Health numbered 293, of which 101 referred to school closure owing to the prevalence of infectious disease.

The number of County districts specially reported upon as to their sanitary circumstances and administration by the County Public Health Staff is now 46.

From the Exchequer Contribution Account payments towards the salaries of Public Health Officials are made under Section 24 of the Local Government Act, 1888, to the Councils of 17 boroughs, 85 urban districts, 19 rural districts, and 2 port sanitary authorities. The total payments during the financial year ended March 31st, 1920, amounted to £16,897 16s. 6d., of which £6,962 7s. 10d. was in respect of Medical Officers of Health, and £9,935 8s. 8d. for Inspectors of Nuisances.

I take this opportunity of expressing my thanks to district Medical Officers of Health and their sanitary staffs for statistics and information supplied to the County Public Health Department during the year.

I am, Gentlemen,

Your obedient Servant,

J. J. BUTTERWORTH,

County Medical Officer of Health.

Public Health Department,  
County Offices, Preston,  
August, 1920.



## THE COUNTY.

**Area.**—The area of the Administrative County on the 31st December, 1919, was 1,053,822 statute acres ; no change affecting the area of the County took place during the year.

The area of each County district, as extracted from the Census Report, 1911, is given in Table B, page xvi.

**Population.**—Normally, the difficulty of a correct estimation of the population, both of the whole country and of the various administrative divisions, increases as the last census becomes more distant, and this difficulty has been greatly increased by the war, which has had the effect of rendering useless the methods usually adopted for this purpose.

The method which has been in use by the Registrar-General from 1916 onward—based mainly upon the National Register and the returns made under the scheme for the rationing of food—has been continued for the year under report.

The Registrar-General in a memorandum to Medical Officers of Health, March, 1920, states that the "death-rate population" excludes all non-civilian males, whether serving at home or abroad. This is necessary for the purposes of local death-rates, because it has proved impossible to transfer the deaths of non-civilians to their areas of residence, or to deal in any other satisfactory manner with the local mortality of this element in the population.

The "birth-rate (and marriage rate) population," on the other hand, is intended to include all the elements of the population contributing to the birth and marriage rates. It consists, therefore, of the death-rate or civilian population, plus all non-civilians enlisted from this country, whether serving at home or abroad. This non-civilian element has been distributed over all the districts in the country in proportion to their estimated civilian population.

The local populations, used for birth-rate purposes by the Registrar-General, and the civilian populations used for death-rate purposes have been furnished to the local Medical Officers of Health.



The aggregate of the estimates for the urban and rural districts comprised within the Administrative County on the 31st December, 1919, are as follows:—

For calculating the <i>birth-rate</i> ...	1,732,056.
„ „ <i>death-rate</i> ...	1,662,716.

At the last census (1911) the enumerated population of the Administrative County was 1,739,320 (including certain Public Institutions), and since that date the excess of births over deaths has amounted to 87,487. By the extension of County Boroughs between 1911 and 1919, a loss of population, representing 40,240 persons, has been sustained.

The Registrar-General's estimate of the County population in 1919, for purposes of calculating the death-rate, is 124,171 more than his estimate for the preceding year, but is 86,943 less than the estimate of local Medical Officers of Health in the year preceding the war.

Table B, page xvi, shows the census enumeration of each borough, urban and rural district, and the estimated population for the year 1919 for both birth-rate and death-rate purposes.

The following table gives the area, population, persons per acre, &c., of the County on the 31st December, 1919, distinguishing the boroughs, urban, and rural districts:—

	Area in Acres.	Population.			Persons per Acre.	Acres per Person.
		*Census, 1911.	Estimate of Population, 1919.			
			For Birth-rate	For Death-rate	Calculated on Census figures.	
Municipal Boroughs (18).	77,983	546,183	559,254	536,866	7·00	0·14
Urban Districts (85) .....	260,867	906,227	943,622	905,845	3·47	0·28
Rural Districts (19) .....	714,972	232,708	229,180	220,005	0·32	3·07
Administrative County .....	1,053,822	1,685,118	1,732,056	1,662,716	1·59	0·62

\* Excluding certain public institutions, *i.e.*, asylums.



**Vital Statistics.**—The system in vogue since 1916 under which the Registrar-General, through the County Public Health Department, supplied each district Medical Officer of Health with the details of the births and deaths registered in, or belonging to, his district, was continued in 1919.

The Registrar-General, in a memorandum accompanying the statistical information, directs the attention of Medical Officers of Health and others using the returns to “some points upon which experience has shown that misunderstandings tend to arise”: *e.g.*—

“The numbers of births and deaths are those registered during the calendar year and are corrected for inward and outward transfers; they will differ, therefore, from uncorrected figures compiled locally either for the calendar year or for a period of fifty-two or fifty-three weeks.”

“The ‘classification’ of some deaths is modified in the light of fuller information obtained from the certifying practitioner in response to special inquiries. . . These possible sources of discrepancy between the returns of the Registrar-General and those compiled locally should be borne in mind, particularly in regard to the causes of death.”

**Births and Birth-rates.**—The births registered in, or belonging to, the area of the Administrative County during the year under report numbered 28,799, or 1,063 in excess of the number recorded in the previous twelve months.

The sex of the children born is shown below:—

	Males.	Females.	Total.
Urban Districts .....	12,679	12,250	24,929
Rural Districts .....	2,006	1,864	3,870
Administrative County ...	14,685	14,114	28,799

The male births exceeded those of females by 1.99 per cent. ; in 1918 this excess corresponded to 2.81 per cent. ; in 1917 to 2.47 ; and 2.49 per cent. in 1916.

The following table shows the County, urban, and rural birth-rates for the year 1919, calculated on the estimated population supplied by the Registrar-General (see page ix) ; also the rates for each year in the preceding decennial period. For comparative purposes the birth-rates for the whole country are also given :—

	Rate per 1,000 of the Estimated Population.										
	1919.	1918.	1917.	1916.	1915.	1914.	1913.	1912.	1911.	1910.	1909.
Urban Districts	16.58	16.09	16.27	18.54	19.91	22.19	22.41	22.09	22.88	22.47	23.67
Rural Districts..	16.88	16.06	16.08	18.59	18.95	20.95	20.86	21.42	21.15	22.52	22.91
Administrative County .....	16.62	16.08	16.25	18.54	19.78	22.02	22.20	22.00	22.64	22.48	23.57
England and Wales.....	18.5	17.7	17.8	21.6	21.8	23.8	23.9	23.8	24.4	24.8	25.6

The increase in the County birth-rate in 1919, as compared with the year 1918, corresponded to 0.54 per 1,000 of the estimated population,—in urban districts 0.49, and in rural districts 0.82—but the rate was 5.40 per 1,000 below that of 1914, the last year which so far as the births are concerned was unaffected by the war. It was 3.93 below the County average for the ten years 1909-1918, and 1.9 less than the provisional rate for the year 1919 for the whole of England and Wales.

The excess of births over deaths in 1919 was 5,405, as compared with an excess of about 17,500 ten years ago.

The mean birth-rates per 1,000 of population for the Administrative County for four quinquennial periods and for the year 1919 are given below :—

1899—1903	...	26.81		1909—1913	...	22.57
1904—1908	...	24.94		1914—1918	...	18.53
		1919	...	16.62		



The acceleration in the decline in the *number* of births in recent years will be seen from the following table :—

Year.	Total No. of Births in County.	Year.	Total No. of Births in County.
1911 ...	39,134	1916 ...	32,695
1912 ...	38,443	1917 ...	28,420
1913 ...	38,844	1918 ...	27,736
1914 ...	38,507	1919 ...	28,799
1915 ...	34,595		

The average annual number of births during the years 1916-1919 was 29,412, a decline of 9,320 each year on the average of the last four pre-war years.

The births and birth-rates of individual urban and rural districts in 1919 are tabulated in Table B, page xvi. In 31 districts the number of deaths of civilians during the year exceeded the total number of births. The majority of the districts remain fairly constant, either with high or low rates.

The highest birth-rates in 1919 were recorded in Haydock 29·4, Upholland 27·4, Golborne 26·3, Widnes (B.) 26·0, Ince-in-Makerfield 25·3, Aspull 24·8, Adlington 24·1, Litherland and Skelmersdale each 24·0, and Dalton-in-Furness 23·9. Low rates obtained in Tottington 10·5, St. Annes-on-the-Sea 10·1, Lytham 10·0, Croston 9·6, Nelson (B.) 9·0, and Grange-over-Sands 8·9.

**Illegitimate Births.**—The births of illegitimate children in 1919 were 12 less than in the preceding year, viz., 1,519, against 1,531. The percentage of these births to total births was 5·27, as compared with a percentage of 5·51 last year and 4·48 in 1917.

**Deaths and Death-rates.**—As in the three preceding years, the deaths included in this report for the year 1919 relate only to those occurring amongst the civilian population, as it has been found impossible to transfer the deaths of non-civilians to their areas of residence; and the death-rates are invariably based upon civilian deaths and civilian population. The statistics given in this report, both County and local, are taken from Returns made by the Registrar-General.



The total number of deaths of civilians registered in the Administrative County during the year 1919, after making the necessary corrections for inward and outward transfers, was 23,394, or 3,169 less than the aggregate for the year 1918 (26,563). In 1917 there were 21,937 deaths registered, and 23,197 in 1916.

The sex distribution of the persons dying in 1919 is shown below :—

	Males.	Females.	Total.
Urban Districts .....	9,901	10,324	20,225
Rural Districts.....	1,572	1,597	3,169
Administrative County ...	11,473	11,921	23,394

In the year 1918 the deaths of females in this County exceeded those of males for the first time since the year 1900. During the year under report (1919) female deaths were again in excess of those of males, the respective percentages being 50·95 and 49·04, a difference of 1·91. In the urban districts the excess of female deaths over those of males corresponded to 2·09, and in rural districts 0·79. In the whole Administrative County the deaths of females were to those of males as 1,039 is to 1,000—the ratios in the urban and rural districts being 1,042 and 1,015 to 1,000 respectively.

The County deaths at the various age periods are given below :—

Under 1 Year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	Total.
2,697	651	846	1,027	1,134	3,296	6,188	7,555	23,394

Table A is a classified statement of the causes of death in 1919, distributed in age groups and distinguishing the sexes, for the aggregate urban and aggregate rural districts.

The following table gives the County birth and death rates, and also those for England and Wales. The County



ADMINISTRATIVE COUNTY OF LANCASTER.

TABLE A.—CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE DURING THE YEAR ENDED 31st DECEMBER, 1919.

CAUSES OF DEATH.	ADMINIS- TRATIVE COUNTY. TOTAL DEATHS.	Sex.	AGGREGATE OF URBAN DISTRICTS.										AGGREGATE OF RURAL DISTRICTS.									
			YEARS.																			
			All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	All Ages.	0—	1—	2—	5—	15—	25—	45—	65—		
ALL CAUSES .. .. .	23394	M. F.	9901 10324	1391 965	299 286	364 377	442 461	448 543	1329 1536	2781 2616	2847 3540	1572 1597	198 143	38 28	54 51	75 49	61 82	206 225	399 392	541 627		
		Total	20225	2356	585	741	903	991	2865	5397	6387	3169	341	66	105	124	143	431	791	1168		
1 Enteric fever .. .. .	35	M. F.	15 13	.. ..	.. ..	.. ..	2 2	5 4	7 2	1 6	.. 1	4 1	.. ..	.. ..	.. ..	2 ..	.. 1	2 ..	.. ..	.. ..		
2 Small-pox .. .. .	..	M. F.	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..		
3 Measles .. .. .	130	M. F.	64 60	14 12	23 15	20 20	7 10	.. 1	.. 1	.. ..	.. 1	3 3	1 1	2 1	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..		
4 Scarlet fever .. .. .	72	M. F.	24 43	1 ..	2 3	7 23	14 17	.. ..	.. ..	.. ..	.. ..	3 2	.. ..	.. ..	.. 1	2 1	1 ..	.. ..	.. ..	.. ..		
5 Whooping cough .. .. .	86	M. F.	29 53	14 10	6 14	9 24	.. 5	.. ..	.. ..	.. ..	.. ..	3 1	1 ..	1 ..	.. ..	1 ..	.. ..	.. ..	.. ..	.. ..		
6 Diphtheria and croup .. .. .	222	M. F.	86 115	2 3	5 7	39 37	37 64	1 2	2 2	.. ..	.. ..	9 12	.. ..	.. ..	4 8	4 3	1 ..	.. 1	.. ..	.. ..		
7 Influenza .. .. .	2463	M. F.	937 1137	38 33	22 24	30 37	42 64	75 140	279 380	290 286	161 173	192 197	9 7	5 3	11 11	16 6	13 32	57 68	42 44	39 26		
8 Erysipelas .. .. .	34	M. F.	19 13	.. 3	.. ..	1 ..	1 ..	1 2	3 2	11 2	2 2	1 1	.. ..	.. ..	.. ..	.. ..	.. ..	1 ..	1 ..	.. ..		
9 Pulmonary tuberculosis .. .. .	1339	M. F.	595 577	4 2	4 4	7 7	20 39	85 149	248 256	200 97	27 23	80 87	.. ..	.. ..	1 1	6 18	13 37	38 21	25 21	3 4		
10 Tuberculous meningitis .. .. .	101	M. F.	30 56	5 7	2 9	6 18	13 15	3 4	1 3	.. ..	.. ..	5 10	1 1	1 1	2 6	1 2	1 ..	.. ..	.. ..	.. ..		
11 Other tuberculous diseases .. .. .	257	M. F.	123 110	8 4	8 6	12 17	29 24	25 21	23 22	17 8	1 1	11 13	1 2	1 ..	1 4	3 ..	2 2	1 1	3 3	.. 1		
12 Cancer, malignant disease .. .. .	1793	M. F.	683 870	.. ..	.. ..	.. ..	3 2	2 3	57 105	365 467	256 293	91 149	.. ..	.. ..	.. ..	.. ..	1 1	5 18	51 72	34 58		
13 Rheumatic fever .. .. .	98	M. F.	34 54	.. ..	.. ..	.. 1	9 17	6 15	9 15	6 5	4 1	4 6	.. ..	.. ..	.. ..	2 1	1 2	1 1	.. 2	.. ..		
14 Meningitis .. .. .	159	M. F.	72 63	14 14	8 6	14 14	19 14	7 7	6 3	4 4	.. 1	17 7	7 2	1 1	3 ..	4 2	.. ..	.. 2	1 ..	1 ..		
15 Organic heart disease .. .. .	2323	M. F.	855 1146	1 ..	1 1	.. 2	13 19	38 29	105 139	318 393	379 563	148 174	.. ..	.. ..	.. ..	2 3	2 1	15 14	48 59	81 97		
16 Bronchitis .. .. .	2410	M. F.	971 1161	139 111	40 40	20 22	12 9	11 5	35 40	259 252	455 682	132 146	24 14	3 2	2 2	.. ..	.. 3	2 3	24 31	77 94		
17 Pneumonia (all forms) .. .. .	1940	M. F.	972 726	206 100	106 84	89 83	56 55	39 38	152 100	223 142	101 124	141 101	23 23	13 9	14 9	8 3	7 3	19 12	36 25	21 17		
18 Other respiratory diseases .. .. .	313	M. F.	135 134	8 5	3 5	19 14	11 11	7 3	8 13	47 38	32 45	25 19	1 1	.. ..	1 1	2 ..	1 1	2 4	10 8	8 8		
19 Diarrhoea, &c. .. .. .	460	M. F.	227 182	127 82	19 20	19 11	9 9	.. 1	8 11	21 22	24 26	28 23	13 11	2 2	.. ..	2 1	1 1	1 1	2 3	8 4		
20 Appendicitis and typhlitis .. .. .	109	M. F.	59 34	.. ..	.. ..	3 8	18 12	15 6	11 6	11 6	1 2	9 7	.. ..	.. ..	.. ..	6 2	1 1	2 4	.. ..	.. ..		
21 Cirrhosis of liver .. .. .	63	M. F.	36 20	.. ..	.. ..	.. ..	.. 1	.. 3	6 11	21 5	9 5	4 3	.. ..	.. ..	.. ..	.. ..	.. ..	.. 2	3 1	1 1		
21a Alcoholism .. .. .	6	M. F.	4 ..	.. ..	.. ..	.. ..	.. ..	.. ..	2 ..	2 ..	.. ..	2 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	2 ..	.. ..		
22 Nephritis and Bright's disease .. .. .	609	M. F.	289 260	2 ..	2 1	2 5	13 8	9 7	53 46	134 121	74 72	34 26	.. ..	.. ..	1 ..	.. ..	.. ..	3 4	15 13	12 9		
23 Puerperal fever .. .. .	57	M. F.	.. 48	.. ..	.. ..	.. ..	.. 12	.. 36	.. ..	.. ..	.. ..	9 ..	.. ..	.. ..	.. ..	.. ..	4 ..	.. 5	.. ..	.. ..		
24 Parturition, apart from puerperal fever .. .. .	92	M. F.	.. 80	.. ..	.. ..	.. ..	.. 9	.. 70	.. 1	.. ..	.. ..	.. 12	.. ..	.. ..	.. ..	.. 3	.. 9	.. ..	.. ..	.. ..		
25 Congenital debility, &c. .. .. .	1120	M. F.	559 420	546 411	2 3	5 2	5 1	1 1	.. 1	.. 1	.. ..	81 60	.. 56	.. 2	.. ..	.. 2	.. ..	.. ..	.. ..	.. ..		
26 Violence, apart from suicide .. .. .	662	M. F.	386 166	9 9	11 6	29 13	55 20	44 15	91 16	95 35	52 52	85 25	1 ..	2 ..	7 4	10 5	6 2	23 5	21 3	15 6		
27 Suicide .. .. .	176	M. F.	91 56	.. ..	.. ..	.. ..	1 1	5 8	24 18	49 22	12 7	25 4	.. ..	.. ..	.. ..	.. ..	1 ..	8 2	13 2	3 ..		
28 Other defined diseases .. .. .	6091	M. F.	2530 2655	250 156	32 32	33 26	48 44	69 53	191 233	669 661	1238 1450	422 484	36 23	2 4	7 3	10 10	10 8	26 33	96 105	235 298		
29 Causes ill-defined or unknown .. .. .	174	M. F.	76 70	3 3	3 6	.. 1	5 3	.. 1	8 11	38 36	19 9	13 15	2 ..	2 ..	.. ..	2 2	.. 2	2 2	6 3	3 4		



TABLE A - CAUSES OF DEATH

YEAR	SEX	RACE	AGE	CAUSE OF DEATH		TOTAL
				ADMITTED	DECEASED	
1900	M	W	15-24	10	10	10
1900	M	W	25-34	15	15	15
1900	M	W	35-44	20	20	20
1900	M	W	45-54	30	30	30
1900	M	W	55-64	40	40	40
1900	M	W	65-74	50	50	50
1900	M	W	75-84	60	60	60
1900	M	W	85-94	70	70	70
1900	M	W	95-104	80	80	80
1900	M	W	105-114	90	90	90
1900	M	W	115-124	100	100	100
1900	M	W	125-134	110	110	110
1900	M	W	135-144	120	120	120
1900	M	W	145-154	130	130	130
1900	M	W	155-164	140	140	140
1900	M	W	165-174	150	150	150
1900	M	W	175-184	160	160	160
1900	M	W	185-194	170	170	170
1900	M	W	195-204	180	180	180
1900	M	W	205-214	190	190	190
1900	M	W	215-224	200	200	200
1900	M	W	225-234	210	210	210
1900	M	W	235-244	220	220	220
1900	M	W	245-254	230	230	230
1900	M	W	255-264	240	240	240
1900	M	W	265-274	250	250	250
1900	M	W	275-284	260	260	260
1900	M	W	285-294	270	270	270
1900	M	W	295-304	280	280	280
1900	M	W	305-314	290	290	290
1900	M	W	315-324	300	300	300
1900	M	W	325-334	310	310	310
1900	M	W	335-344	320	320	320
1900	M	W	345-354	330	330	330
1900	M	W	355-364	340	340	340
1900	M	W	365-374	350	350	350
1900	M	W	375-384	360	360	360
1900	M	W	385-394	370	370	370
1900	M	W	395-404	380	380	380
1900	M	W	405-414	390	390	390
1900	M	W	415-424	400	400	400
1900	M	W	425-434	410	410	410
1900	M	W	435-444	420	420	420
1900	M	W	445-454	430	430	430
1900	M	W	455-464	440	440	440
1900	M	W	465-474	450	450	450
1900	M	W	475-484	460	460	460
1900	M	W	485-494	470	470	470
1900	M	W	495-504	480	480	480
1900	M	W	505-514	490	490	490
1900	M	W	515-524	500	500	500
1900	M	W	525-534	510	510	510
1900	M	W	535-544	520	520	520
1900	M	W	545-554	530	530	530
1900	M	W	555-564	540	540	540
1900	M	W	565-574	550	550	550
1900	M	W	575-584	560	560	560
1900	M	W	585-594	570	570	570
1900	M	W	595-604	580	580	580
1900	M	W	605-614	590	590	590
1900	M	W	615-624	600	600	600
1900	M	W	625-634	610	610	610
1900	M	W	635-644	620	620	620
1900	M	W	645-654	630	630	630
1900	M	W	655-664	640	640	640
1900	M	W	665-674	650	650	650
1900	M	W	675-684	660	660	660
1900	M	W	685-694	670	670	670
1900	M	W	695-704	680	680	680
1900	M	W	705-714	690	690	690
1900	M	W	715-724	700	700	700
1900	M	W	725-734	710	710	710
1900	M	W	735-744	720	720	720
1900	M	W	745-754	730	730	730
1900	M	W	755-764	740	740	740
1900	M	W	765-774	750	750	750
1900	M	W	775-784	760	760	760
1900	M	W	785-794	770	770	770
1900	M	W	795-804	780	780	780
1900	M	W	805-814	790	790	790
1900	M	W	815-824	800	800	800
1900	M	W	825-834	810	810	810
1900	M	W	835-844	820	820	820
1900	M	W	845-854	830	830	830
1900	M	W	855-864	840	840	840
1900	M	W	865-874	850	850	850
1900	M	W	875-884	860	860	860
1900	M	W	885-894	870	870	870
1900	M	W	895-904	880	880	880
1900	M	W	905-914	890	890	890
1900	M	W	915-924	900	900	900
1900	M	W	925-934	910	910	910
1900	M	W	935-944	920	920	920
1900	M	W	945-954	930	930	930
1900	M	W	955-964	940	940	940
1900	M	W	965-974	950	950	950
1900	M	W	975-984	960	960	960
1900	M	W	985-994	970	970	970
1900	M	W	995-1004	980	980	980
1900	M	W	1005-1014	990	990	990
1900	M	W	1015-1024	1000	1000	1000
1900	M	W	1025-1034	1010	1010	1010
1900	M	W	1035-1044	1020	1020	1020
1900	M	W	1045-1054	1030	1030	1030
1900	M	W	1055-1064	1040	1040	1040
1900	M	W	1065-1074	1050	1050	1050
1900	M	W	1075-1084	1060	1060	1060
1900	M	W	1085-1094	1070	1070	1070
1900	M	W	1095-1104	1080	1080	1080
1900	M	W	1105-1114	1090	1090	1090
1900	M	W	1115-1124	1100	1100	1100
1900	M	W	1125-1134	1110	1110	1110
1900	M	W	1135-1144	1120	1120	1120
1900	M	W	1145-1154	1130	1130	1130
1900	M	W	1155-1164	1140	1140	1140
1900	M	W	1165-1174	1150	1150	1150
1900	M	W	1175-1184	1160	1160	1160
1900	M	W	1185-1194	1170	1170	1170
1900	M	W	1195-1204	1180	1180	1180
1900	M	W	1205-1214	1190	1190	1190
1900	M	W	1215-1224	1200	1200	1200
1900	M	W	1225-1234	1210	1210	1210
1900	M	W	1235-1244	1220	1220	1220
1900	M	W	1245-1254	1230	1230	1230
1900	M	W	1255-1264	1240	1240	1240
1900	M	W	1265-1274	1250	1250	1250
1900	M	W	1275-1284	1260	1260	1260
1900	M	W	1285-1294	1270	1270	1270
1900	M	W	1295-1304	1280	1280	1280
1900	M	W	1305-1314	1290	1290	1290
1900	M	W	1315-1324	1300	1300	1300
1900	M	W	1325-1334	1310	1310	1310
1900	M	W	1335-1344	1320	1320	1320
1900	M	W	1345-1354	1330	1330	1330
1900	M	W	1355-1364	1340	1340	1340
1900	M	W	1365-1374	1350	1350	1350
1900	M	W	1375-1384	1360	1360	1360
1900	M	W	1385-1394	1370	1370	1370
1900	M	W	1395-1404	1380	1380	1380
1900	M	W	1405-1414	1390	1390	1390
1900	M	W	1415-1424	1400	1400	1400
1900	M	W	1425-1434	1410	1410	1410
1900	M	W	1435-1444	1420	1420	1420
1900	M	W	1445-1454	1430	1430	1430
1900	M	W	1455-1464	1440	1440	1440
1900	M	W	1465-1474	1450	1450	1450
1900	M	W	1475-1484	1460	1460	1460
1900	M	W	1485-1494	1470	1470	1470
1900	M	W	1495-1504	1480	1480	1480
1900	M	W	1505-1514	1490	1490	1490
1900	M	W	1515-1524	1500	1500	1500
1900	M	W	1525-1534	1510	1510	1510
1900	M	W	1535-1544	1520	1520	1520
1900	M	W	1545-1554	1530	1530	1530
1900	M	W	1555-1564	1540	1540	1540
1900	M	W	1565-1574	1550	1550	1550
1900	M	W	1575-1584	1560	1560	1560
1900	M	W	1585-1594	1570	1570	1570
1900	M	W	1595-1604	1580	1580	1580
1900	M	W	1605-1614	1590	1590	1590
1900	M	W	1615-1624	1600	1600	1600
1900	M	W	1625-1634	1610	1610	1610
1900	M	W	1635-1644	1620	1620	1620
1900	M	W	1645-1654	1630	1630	1630
1900	M	W	1655-1664	1640	1640	1640
1900	M	W	1665-1674	1650	1650	1650
1900	M	W	1675-1684	1660	1660	1660
1900	M	W	1685-1694	1670	1670	1670
1900	M	W	1695-1704	1680	1680	1680
1900	M	W	1705-1714	1690	169	

death-rates are calculated on the Registrar-General's estimate of the *civilian* population :—

	Birth-rate per 1,000 of the Population.	Death-rate per 1,000 of the Population.	Death-rate from the Principal Epidemic Diseases.	Rate of Infant Mortality measured by the proportion of deaths of Infants under 1 year to 1,000 births.	
Administrative County of Lancaster	Urban .....	16.58	14.01	0.52	94
	Rural .....	16.88	14.40	0.31	88
	Urban and Rural Districts combined	16.62	14.06	0.49	93
England and Wales .....	18.5	13.8	...	89	

\* Includes deaths from Diarrhoea and Enteritis under 2 years *only*.

The table below gives the death-rates of the County, distinguishing the urban and rural rates, and also the rates for England and Wales, from 1909 to 1919 :—

	Death-rate per 1,000 of the estimated Population.										
	1919.	1918.	1917.	1916.	1915.	1914.	1913.	1912.	1911.	1910.	1909.
Urban Districts	14.01	17.40	14.05	14.47	15.60	14.17	14.39	13.76	15.33	12.83	14.08
Rural Districts..	14.40	16.41	13.56	13.32	13.57	12.53	13.00	12.60	13.25	12.09	13.11
Administrative County	14.06	17.26	13.98	14.31	15.32	13.95	14.20	13.61	15.05	12.73	13.96
England and Wales.....	13.8	17.6	14.4	14.0	14.8	13.7	13.4	13.9	14.6	13.4	14.5

Comparison of the death-rate with previous years is still affected by the changes in the constitution of the population owing to the war, but perhaps not to such a marked extent in 1919 as in the preceding two or three years.

The County death-rate for 1919 was 3.20 per 1,000 of the estimated population below the rate of 1918, the decrease in the urban districts being 3.39 and in the rural districts 2.01.



As compared with the average for the past ten years, the County rate in 1919 was more favourable to the extent of 0·37 per 1,000, 0·59 less in the urban districts, but 0·06 higher in the rural districts. The County rate in 1919 was 0·2 per 1,000 above the provisional rate for the whole of England and Wales.

The marked fall in the County death-rate, as compared with 1918, was mainly due to the reduction in the number of deaths from influenza 2,029, pneumonia 664, whooping cough 392, pulmonary tuberculosis 313, &c.

Details of the deaths in the various sanitary areas, classified under 29 headings, are given in Table B, here inserted, and the mortality rates of each district in 1919 are compared with the preceding year and the mean of the decennial period 1909-1918 on pages 1 to 42.

The highest district death-rates in the year under report were attained in Fulwood 19·2, Radcliffe 18·3, Ormskirk 18·0, Morecambe (B.) and Whiston (R.) each 17·8, Longridge 17·3, Ashton-under-Lyne (B.) 17·1, Farnworth and Whitworth each 16·9, West Lancashire (R.) and Wigan (R.) each 16·8, and Heysham 16·7.

The annual death-rate of a district with a comparatively small population is liable to considerable fluctuations, and is not a reliable index of the state of health amongst its inhabitants. The following County districts have the highest mortality averages extending over a period of ten years:—Lees 19·2, Ince-in-Makerfield 18·6, Whitworth 17·9, Ashton-under-Lyne (B.), Heywood (B.), and Wardle each 17·5, Kirkham 17·4, and Royton and Widnes (B.) each 17·3.

Low rates in 1919 were recorded in Urmston 11·5, Fleetwood 11·4, Brierfield 11·3, Eccles (B.) 11·1, Adlington and Horwich each 10·9, Trawden 10·8, Rishton 10·5, Great Crosby 10·3, and Little Crosby 6·8. Covering a period of ten years, the County districts with the most favourable death-rates were—Little Crosby 10·3, Great Crosby 10·5, Formby 10·6, Urmston 10·8, St. Annes-on-the-Sea 11·0, Preesall 11·1, Nelson (B.) 11·5, Adlington and Stretford each 11·6, Carnforth and Rishton each 11·8, and Lunesdale (R.) 11·9.























Date	Description	Debit	Credit	Balance		Debit		Total	Balance
				Dr	Cr	Dr	Cr		
1902	1/1			100		100		100	100
1902	1/15	50		50		50		50	50
1902	1/31		50		50			50	100
1902	2/1			100		100		100	100
1902	2/15	25		75		75		75	75
1902	2/28		25		25			25	100
1902	3/1			100		100		100	100
1902	3/15	50		50		50		50	50
1902	3/31		50		50			50	100
1902	4/1			100		100		100	100
1902	4/15	25		75		75		75	75
1902	4/30		25		25			25	100
1902	5/1			100		100		100	100
1902	5/15	50		50		50		50	50
1902	5/31		50		50			50	100
1902	6/1			100		100		100	100
1902	6/15	25		75		75		75	75
1902	6/30		25		25			25	100
1902	7/1			100		100		100	100
1902	7/15	50		50		50		50	50
1902	7/31		50		50			50	100
1902	8/1			100		100		100	100
1902	8/15	25		75		75		75	75
1902	8/31		25		25			25	100
1902	9/1			100		100		100	100
1902	9/15	50		50		50		50	50
1902	9/30		50		50			50	100
1902	10/1			100		100		100	100
1902	10/15	25		75		75		75	75
1902	10/31		25		25			25	100
1902	11/1			100		100		100	100
1902	11/15	50		50		50		50	50
1902	11/30		50		50			50	100
1902	12/1			100		100		100	100
1902	12/15	25		75		75		75	75
1902	12/31		25		25			25	100





Year	District	County	Population at all ages		Males	Females	Total	Number of families	Average number of persons per family
			Estimated by 1917						
			1917	1918					
1905	...	...	1100	1150	1100	1150	1100	1150	
1910	...	...	1200	1250	1200	1250	1200	1250	
1915	...	...	1300	1350	1300	1350	1300	1350	
1920	...	...	1400	1450	1400	1450	1400	1450	
1925	...	...	1500	1550	1500	1550	1500	1550	
1930	...	...	1600	1650	1600	1650	1600	1650	
1935	...	...	1700	1750	1700	1750	1700	1750	
1940	...	...	1800	1850	1800	1850	1800	1850	
1945	...	...	1900	1950	1900	1950	1900	1950	
1950	...	...	2000	2050	2000	2050	2000	2050	
1955	...	...	2100	2150	2100	2150	2100	2150	
1960	...	...	2200	2250	2200	2250	2200	2250	
1965	...	...	2300	2350	2300	2350	2300	2350	
1970	...	...	2400	2450	2400	2450	2400	2450	
1975	...	...	2500	2550	2500	2550	2500	2550	
1980	...	...	2600	2650	2600	2650	2600	2650	
1985	...	...	2700	2750	2700	2750	2700	2750	
1990	...	...	2800	2850	2800	2850	2800	2850	
1995	...	...	2900	2950	2900	2950	2900	2950	
2000	...	...	3000	3050	3000	3050	3000	3050	
2005	...	...	3100	3150	3100	3150	3100	3150	
2010	...	...	3200	3250	3200	3250	3200	3250	
2015	...	...	3300	3350	3300	3350	3300	3350	
2020	...	...	3400	3450	3400	3450	3400	3450	
2025	...	...	3500	3550	3500	3550	3500	3550	
2030	...	...	3600	3650	3600	3650	3600	3650	
2035	...	...	3700	3750	3700	3750	3700	3750	
2040	...	...	3800	3850	3800	3850	3800	3850	
2045	...	...	3900	3950	3900	3950	3900	3950	
2050	...	...	4000	4050	4000	4050	4000	4050	

Population in Table includes of persons not shown in the district included

**Transferable deaths.**—During the year under report the following transfers have been made :—3,214 persons, who, having a fixed or usual residence in the Administrative County, died in a district other than that in which they resided, and these (known as inward transfers) have been allocated to their proper districts; 4,015 deaths occurring in the County area of persons not belonging thereto have been outwardly transferred.

**Infant Mortality.**—The number of deaths in the Administrative County during the year 1919 of infants under the age of one year was 2,697, or 11·52 per cent. of the total deaths at all ages.

The total number of infant deaths in 1919 in the County was below that of any previous year.

The main causes to which the infant mortality was attributed are shown in the table below, which contrasts 1919 with the four preceding years :—

Cause of Death.	Deaths under 1 year.				
	1919.	1918.	1917.	1916.	1915.
All Causes ... ..	2697	2779	2748	3242	4130
Small-pox ... ..	...	...	...	1	...
Measles ... ..	28	54	75	67	183
Scarlet Fever ... ..	1	1	3	2	5
Whooping Cough ... ..	25	184	86	108	145
Diphtheria and Croup ... ..	5	11	5	5	10
Erysipelas ... ..	3	3	7	5	8
Tuberculous Meningitis... ..	13	19	23	18	38
Other Tuberculous Diseases ... ..	21	21	31	29	58
Meningitis ... ..	37	34	50	47	70
Bronchitis ... ..	288	265	286	334	390
Pneumonia (all forms) ... ..	352	344	334	376	509
Diarrhœa and Enteritis ... ..	233	229	221	371	548
Congenital Debility, Malformations, Premature Birth, &c. ... ..	1094	1002	1026	1200	1445
Other Causes ... ..	597	612	601	679	721



The County infant mortality rate corresponded to 93 per 1,000 registered births (urban districts 94, rural districts 88), the lowest rate ever recorded. Last year the rate was 100, 96 in 1917, 99 in 1916, and an average of 113 for the ten years 1909-1918. The County rate for 1919 was 4 per 1,000 in excess of the rate for the whole of England and Wales.

The following table gives the infant death-rates for the Administrative County, and those of England and Wales for the years 1909-1919 :—

	Rate of Deaths of Children under 1 Year to 1,000 Births.										
	1919.	1918.	1917.	1916.	1915.	1914.	1913.	1912.	1911.	1910.	1909.
Urban Districts.	94	101	96	101	123	115	128	106	148	121	119
Rural Districts..	88	90	94	82	94	96	100	89	111	93	87
Administrative County .....	93	100	96	99	119	112	124	104	144	117	115
England and Wales.....	89	97	97	91	110	105	109	95	130	106	109

In the table below the infant mortality in 1919 is contrasted with the four preceding quinquennia :—

Years.	Birth-rate per 1,000 of Estimated Population.	INFANT MORTALITY.		
		Rate of Deaths under One Year.		Percentage of Infant Deaths to Total Deaths at all ages.
		Per 1,000 Births.	Per 1,000 of the Estimated Population	
1899—1903	26·81	155	4·17	25·58
1904—1908	24·94	136	3·43	23·37
1909—1913	22·57	120	2·73	19·67
1914—1918	18·53	105	2·10	14·17
1919	16·62	93	1·62	11·52

It will be observed that the gradual reduction in the infant mortality rate is coincident with a continuously falling birth-rate, the decline in 1919, as compared with the first quinquennial period shown (1899-1903), being 38 and 40 per cent. respectively.

In four County districts the infant death-rate in 1919 exceeded 150 per 1,000 births, in 40 districts the rate was between 100 and 150, in 68 between 50 and 100, and in 10 districts a rate of less than 50 was recorded.

The highest infant death-rates in 1919 were recorded in Fulwood (9 deaths) 180, Clayton-le-Moors 159, Kirkham 156, Standish-with-Langtree 153, Church 149, Blackrod 144, Royton 141, Oswaldtwistle 133, Aspull and Carnforth each 132, and Haslingden (B.) 130.

Low rates prevailed in Urmston 34, Formby 28, Horwich 27, Trawden 26, Heysham 24, Withnell 23, Wardle 22, Grange-over-Sands and Little Crosby each nil.

Infant mortality in comparatively small districts is liable to annual fluctuation of considerable range, but in the following districts a high infant death-rate is obtained over a period of ten years:—

Lees ... ..	163	Orrell... ..	147
Kirkham ... ..	159	Farnworth ... ..	146
Ince-in-Makerfield ...	152	Skelmersdale ...	143
Ashton-under-Lyne (B.)	148	Hindley ... ..	142
Leigh (B.) ... ..	148	Aspull ... ..	141
Golborne ... ..	147		

**Notification of Births Acts, 1907-1915.**—The County Council is the Local Authority for the Administration of the Notification of Births Act, 1907, for the sanitary areas in which that Act had not been adopted at the time the 1915 Act became operative. This area consists of 79 districts, and, in addition, two other districts in which the Act had been adopted by the Local Authority are, by arrangement, included in the County Council's child welfare area.



From the above-mentioned area—81 districts—notifications were received in 1919 by the County Medical Officer of Health respecting 12,418 births, and copies of these were forwarded, week by week, to the County Health Visitors. The actual number of births registered in these districts totalled 12,618.

**Maternity and Child Welfare.—Health Visitors.**—Maternity and Child Welfare work in this County was carried out as under on the 31st December, 1919 :—

	Estimated Population for calculation of Birth-rate.	No. of Births registered in 1919.
By Local Sanitary Authorities—in 53 districts (17 boroughs, 35 urban and 1 rural district) ...	1,137,957 ...	18,848
By the County Council—in 69 dis- tricts (1 borough, 50 urban and 18 rural districts) ...	594,099 ...	9,951
	1,732,056 ...	28,799

The table below shows the action taken, up to 31st December, 1919, by *Local Sanitary Authorities* in the establishment of Child Welfare Centres and the appointment of Health Visitors :—

District.	Mother and Child Welfare Centre.	Health Visitor appointed.
Abram ... ..	Infant Welfare Centre	Whole time
Accrington (B.) ...	Do.	Whole time
Ashton-in-Makerfield	Do.	Whole time
Ashton-under-Lyne(B.)	Two Do.	Whole time (3)
Atherton ... ..	Do.	Whole time

District.	Mother and Child Welfare Centre.	Health Visitor appointed.
Bacup (B.) ... ..	Infant Welfare Centre	Health Visitor also acts as School Nurse.
Brierfield ... ..	Do.	Whole time
Chadderton .....	Maternity and Infant Welfare Centre	Whole time (1) Part time (1)
Chorley (B.) ... ..	Two Maternity and Infant Welfare Centres. Night and Day Nursery at Moss Cottage, Eaves Lane, opened November, 1919	Whole time (2)
Clayton-le-Moors ... ..	... ..	Whole time
Clitheroe (B.) ... ..	Maternity Centre	Health Visitor also acts as School Nurse
Colne (B.) ... ..	Do.	Whole time
Crompton ... ..	Infant Welfare Centre...	Whole time
Darwen (B.) ... ..	Two Maternity and Infant Welfare Centres. Day Nursery	Whole time
Denton ... ..	Maternity and Infant Welfare Centre	Whole time
Eccles (B.) ... ..	Mothers' and Babies' Welcome Club	Maternity Superintendent and two whole time Health Visitors
Failsworth ... ..	Infant Welfare Centre	Whole time
Farnworth ... ..	Maternity Centre	Whole time (2)
Golborne ... ..	... ..	Joint with Haydock
Great Harwood ... ..	Maternity and Infant Welfare Centre	Part time
Haslingden (B.) ... ..	Infant Welfare Centre	Whole time



District.	Mother and Child Welfare Centre.	Health Visitor appointed.
Haydock ... ..	...	Joint with Golborne
Heywood (B.) ...	Infant Welfare Centre being established at the Central Council School	Whole time, to commence duty April, 1920
Hindley ... ..	Maternity Centre. Antenatal Clinic	Whole time (1) Part time (1)
Horwich ... ..	Infant Welfare Centre	Whole time (2)
Hurst ... ..	School for Mothers, and Infant Consultations	Whole time
Ince-in-Makerfield ...	Two Infant Welfare Centres	Whole time (2)
Irlam ... ..	Maternity Centre in each Ward—Irlam and Cadishead	Whole time
Lancaster (B.) ...	Mothers' and Babies' Welcome	Four Health Visitors who also act as School Nurses
Leigh (B.) ... ..	Babies' and Mothers' Welfare Centre	Whole time (2)
Littleborough ... ..	...	Joint with Milnrow and Wardle
Middleton (B.) ...	Infant Welfare Centre	Whole time
Milnrow ... ..	...	Joint with Littleborough and Wardle
Mossley (B.) ... ..	Maternity and Infant Welfare Centre	Whole time
Nelson (B.) ... ..	Infant Welfare Centre	Whole time (2)
Newton-in-Makerfield	Do.	Whole time
Orrell ... ..	Do.	District Nurse acts as Health Visitor

District.	Mother and Child Welfare Centre.	Health Visitor appointed.
Oswaldtwistle ...	Infant Welfare Centre	Whole time
Padiham ...	Maternity and Infant Welfare Centre	Whole time
Prestwich ...	Two Infant Welfare Centres	Whole time
Radeliffe ...	... ..	Whole time
Ramsbottom ...	Infant Welfare Centre	Whole time
Rawtenstall (B.) ...	Three Infant Welfare Centres	School Nurse acts as Health Visitor, assisted by six part-time District Nurses who give half day per week
Royton ...	Infant Welfare Centre	Whole time
Stretford ...	Baby Clinic ...	Whole time
Swinton & Pendlebury	Baby Clinic and School for Mothers	Whole time (2)
Tyldesley-with-Shakerley	Maternity and Infant Welfare Centre	Whole time
Upholland ...	... ..	Part time
Wardle ...	... ..	Joint with Milnrow and Littleborough
Waterloo-with-Seaforth	Maternity and Infant Welfare Centre ; also School for Mothers	Whole time
Westhoughton ...	Infant Welfare Centre	Whole time (2)
Widnes (B.) ...	Three Infant Welfare Centres	Whole time (3)
Barton-upon-Irwell (R.)	Infant Welfare Centres at Clifton, Davyhulme, and Flixton	Whole time



COUNTY COUNCIL SCHEME.—The Medical and Nursing staff of the School Medical Department and the Maternity and Child Welfare staff of the Public Health Department were amalgamated on the 1st April, 1919. By this arrangement an end was put to an arbitrary division of work which could not be defended by any argument of economy or efficiency, and for the future the child will be under the supervision of one set of officials from birth onwards. Even the ante-natal life of the child is an object of the care of the combined department, and at the Child Welfare Centres which have been established, and in the Home Visits made by the nursing staff, advice and supervision is given to expectant mothers.

Complete co-ordination with the Public Health Department is ensured by the fusion of the Medical and Nursing staffs. The County Medical Officer of Health is also the School Medical Officer, and the Assistant School Medical Officers are also the Assistant County Medical Officers of Health, while the School Nurses are also the Health Visitors.

The following is a statement of the work done by the County Nurses during the twelve months ended 31st December, 1919 :—

*Home Visits—*

No. of first visits	...	...	...	...	9,610
No. of revisits	...	...	...	...	28,121
No. of individual children referred to in the above re-visits	...	...	...	...	25,540

*Ante-Natal Visits—*

No. of visits to expectant mothers	...	...	712
------------------------------------	-----	-----	-----

*Other Visits—*

Special visits to older children, local Medical Officers of Health, &c.	...	...	1,273
Special visits to cases of ophthalmia neonatorum and other cases	...	...	193
Reports to Central Office <i>re</i> insanitary conditions			133

THE GUILD WEAPONS CENTRES  
1913

Stock on hand 31st December 1912		Purchases		Sales	
Cost	Lbs	Cost	Lbs	Cost	Lbs
2 8 4	13	1 8 4	1 14 10	0 1 2	0 1 2
7 10 0	72	13 14 2	13 14 2		
3 0 8	28	0 4 0	0 4 0		
1 17 8	33	...	...	0 3 2 1/2	10 1/2
3 8 2 1/2	44 1/2	...	...	...	...
0 2 2	10 1/2	...	...	...	...
4 2 0	50	...	...	...	...
4 13 2	43	...	...	...	...
4 10 2	46	...	...	...	...
0 11 1 1/2	10 1/2	...	...	...	...
1 3 2 1/2	9 1/2	...	...	...	...
11 9 2	100	...	...	...	...
2 13 4	300	12 9 10	12 9 10	2 2 4	2
2 14 2	22	0 4 4	0 4 4	...	...
3 7 8 1/2	8 1/2	...	...	...	...
0 12 1 1/2	11 1/2	...	...	...	...
0 3 0	43	...	...	...	...
12 0 8	111	...	...	...	...
1 10 4	28	0 10 2 1/2	0 10 2 1/2	...	...
3 2 10	30	...	...	0 0 2	2
...	...	...	...	...	...
85 11 8	700	0 8 8	0 8 8	1 10 10	10
12 18 8	147	0 2 8	0 2 8	...	...
3 4 0	32	0 2 8	0 2 8	...	...
5 12 1 1/2	102 1/2	...	...	...	...
8 3 8	27	...	...	...	...
3 2 10	20	0 2 2	0 2 2	0 2 1	2
0 12 0 1/2	12 1/2	...	...	...	...
0 7 11	22	...	...	...	...
32 10 0	200 1/2	120 2 0	120 2 0	2 10 2	2
11 4 10	12	12 10 10	12 10 10	0 17 8	8
1 13 2 1/2	30 1/2	2 8 10	2 8 10	...	...
0 4 4	24	0 8 8	0 8 8	...	...
2 13 10 1/2	28 1/2	0 0 1 1/2	0 0 1 1/2	...	...



TABLE E.

STATEMENT SHOWING SALES OF DRIED MILK ETC., AT THE CHILD WELFARE CENTRES  
DURING THE YEAR ENDED 31ST DECEMBER, 1919.

Centre.	Foodstuffs, &c.	Stock during year.		Disposed of							Stock on hand 31st December, 1919.		
		Lbs.	Cost.	At Cost Price or Over.			At Less than Cost Price.			Free.		Lbs.	Cost.
				Lbs.	Amount received.	Profit.	Lbs.	Amount received.	Loss.	Lbs.	Loss.		
Adlington	Glaxo	1392	£ s. d. 139 12 0	1359	£ s. d. 136 6 10	...	1	£ s. d. 0 1 0	£ s. d. 0 1 2	19	£ s. d. 1 14 10	13	£ s. d. 1 8 2
Audenshaw	Glaxo	2116	199 4 0	1923	178 13 10	...	...	...	...	121	12 14 2	72	7 16 0
	Cow and Gate	432	43 12 0	402	40 7 4	...	...	...	...	2	0 4 0	28	3 0 8
	Nestles' Milk	144	8 0 0	69	3 19 7	0 6 5½	42	2 5 10½	0 3 2¼	...	...	33	1 17 9½
	Virol	168	9 0 0	123½	10 5 7½	3 13 11½	...	...	...	...	...	44½	2 8 4½
	Cartons	144	0 12 0	43	0 3 7	...	...	...	...	...	...	101	0 8 5
	Horlicks	60	4 19 0	10	0 16 10	0 0 4	...	...	...	...	...	50	4 2 6
Bamber Bridge	Glaxo	816	83 12 0	773	78 18 10	...	...	...	...	...	...	43	4 13 2
	Cow and Gate	192	19 4 0	146	14 4 4	...	...	...	...	...	...	46	4 19 8
	Virol	28	1 10 0	17½	1 9 7	0 10 8½	...	...	...	...	...	10½	0 11 1½
	Feeding Utensils	276	3 6 0	179	2 2 9½	...	...	...	...	...	...	97	1 3 2½
Church	Glaxo	192	20 16 0	86	9 6 4	...	...	...	...	...	...	106	11 9 8
Droylsden	Glaxo	3024	303 12 0	2646	264 2 8	0 1 4	43	2 5 2	2 2 4	135	13 9 10	200	21 13 4
	Cow and Gate	96	10 8 0	69	7 9 6	...	...	...	...	2	0 4 4	25	2 14 2
	Nestles' Milk	144	8 9 0	87	5 5 1½	0 3 9½	...	...	...	...	...	57	3 7 8½
	Virol	56	3 0 0	44½	3 13 9	1 6 5½	...	...	...	...	...	11½	0 12 8½
	Cartons	144	0 12 0	99	0 8 3	...	...	...	...	...	...	45	0 3 9
Feniscowles	Glaxo	144	15 12 0	33	3 11 6	...	...	...	...	...	...	111	12 0 6
	Virol	45	2 8 1	2	0 3 4	0 1 10	...	...	...	15	0 16 3	28	1 10 4
Leyland	Glaxo	624	62 0 0	594	58 15 0	...	1	0 1 5	0 0 9	...	...	29	3 2 10
	Feeding Utensils	36	0 15 6	36	0 17 4½	0 1 10½	...	...	...	...	...	...	...
Litherland	Glaxo	1511	163 13 10	683	73 19 10	...	34	1 16 10	1 16 10	4	0 8 8	790	85 11 8
	Cow and Gate	163	17 13 2	15	1 12 6	...	...	...	...	1	0 2 2	147	15 18 6
	Trumilk	33	3 6 0	...	...	...	...	...	...	1	0 2 0	32	3 4 0
	Virol	140	7 10 0	36½	3 0 10	1 2 11½	...	...	...	...	...	103½	5 12 1½
Little Hulton	Glaxo	672	68 0 0	615	61 16 6	...	...	...	...	...	...	57	6 3 6
Ormskirk	Cow and Gate	229	24 16 2	190	20 11 8	...	9	0 10 5	0 9 1	1	0 2 2	29	3 2 10
	Virol	28	1 10 0	12½	1 0 5	0 7 5½	...	...	...	...	...	15½	0 17 0½
	Cartons	144	0 12 0	49	0 4 1	...	...	...	...	...	...	95	0 7 11
Prescot	Glaxo	5572	558 16 8	3839	380 7 2	...	171	8 16 9	7 19 9	1262	129 3 0	300	32 10 0
	Cow and Gate	685	61 19 10	482	43 9 8	0 4 0	21	1 1 0	0 17 6	169	15 10 10	13	1 4 10
	Virol	448	24 0 0	372½	26 1 2	6 3 2½	...	...	...	45	2 8 10	30½	1 13 2½
	Cartons	1008	4 4 0	838	3 9 10	...	...	...	...	116	0 9 8	54	0 4 6
	Feeding Utensils	660	12 6 6	557	9 16 10	0 5 2	...	...	...	5	0 0 11½	98	2 13 10½
Rishton	Glaxo	192	20 16 0	79	8 11 2	...	...	...	...	...	...	113	12 4 10
St. Annes	Glaxo	48	5 4 0	10	1 1 8	...	...	...	...	...	...	38	4 2 4
	Virol	56	3 0 0	8	0 13 4	0 5 0	(Trans. to Feniscowles, 17lbs., 18/1)	...	...	11	0 11 11	20	1 1 8
Skelmersdale	Cow and Gate	330	34 2 0	209	21 1 6	...	...	...	...	5	0 10 10	116	12 9 8
	Virol	28	1 10 0	3½	0 5 5	0 2 2½	...	...	...	...	...	24½	1 6 9½
	Feeding Utensils	204	1 14 6	20	0 5 0	...	...	...	...	...	...	184	1 9 6
Walkden	Glaxo	1536	158 8 0	1195	121 11 0	0 1 10	...	...	...	15	1 12 6	326	35 6 4
	Cow and Gate	384	38 8 0	254	24 7 8	...	...	...	...	4	0 7 4	126	13 13 0
	Virol	224	12 0 0	189½	15 15 10	5 13 2½	...	...	...	3	0 3 3	31½	1 14 1½
	Carton	288	1 8 0	166	0 13 10	...	39	0 3 3	0 2 0	...	0 2 0	83	0 6 11
Worsley	Glaxo	480	47 4 0	407	39 5 10	...	...	...	...	...	...	73	7 18 2
	Virol	84	4 10 0	52½	4 7 11	1 11 9½	...	...	...	1	0 1 1	30½	1 12 9½
	Cartons	144	0 14 0	13	0 1 1	...	...	...	...	...	0 2 0	131	0 10 11

The following is a Summary of Attendances at the Child Welfare Centres during the twelve months ended 31st December, 1919 :—

<i>No. of Times the Centres were open</i>	...	589
<i>No. of Individual Children attending—</i>		
Under 1 year of age	... ..	5,054
From 1—2 years of age	... ..	1,125
Over 2 years of age	... ..	755
	—	6,934
<i>No. of Attendances by Children—</i>		
Under 1 year of age	... ..	9,817
From 1—2 years of age	... ..	2,034
Over 2 years of age	... ..	1,091
	—	12,942
<i>No. of Attendances by Expectant Mothers</i>	...	202
<i>No. of Attendances by Other Women</i>	...	5,751

The following is a statement showing the number of necessitous cases of children under 5 years of age, nursing or expectant mothers, who have been supplied with milk, &c., during the year ended 31st December, 1919 :—

Food Supplied.	At Less than Cost Price.		Free of Cost.		Total.	
	No. of Cases.	Quantity supplied.	No. of Cases.	Quantity supplied.	No. of Cases.	Quantity supplied.
Fresh Milk ...	5	144½ pts.	60	1529½ pts.	65	1674 pts.
Glaxo ...	20	250 lbs.	89	1556 lbs.	109	1806 lbs.
Cow & Gate	2	30 lbs.	17	184 lbs.	19	214 lbs.
Virol ...	...	...	23	75 lbs.	23	75 lbs.

Table E, here inserted, shows the sales of Dried Milk, &c., at the Child Welfare Centres.



The following is a list of the Child Welfare Centres which have already been established :—

District.	Address of Centre.	Nurse.	Medical Officer.	Day and Time Open.
Adlington ...	Wesleyan Sunday School, Market St. ...	Miss M. Kennedy ...	Dr. R. B. Berry ...	Wednesday, 2-0—4-0
Aspull (New Springs)	Independent Methodist Sunday School, New Springs	Miss M. C. Williams ...	Dr. L. E. H. R. Barker ...	Wednesday, 2-0—4-0
Audenshaw ...	Hooley Hill Independent Church, Bridge Street	Miss M. G. Dickinson ...	Dr. E. R. Cooper ...	Monday, 2-30—4-0
Barrowford ...	Congregational Sunday School, Hill Top	Miss J. Hallett ...	Dr. C. L. Corbett ...	Thursday, 2-0—4-0
Bamber Bridge ...	Conservative Club, Cranborne Road ...	Mrs. M. C. Hoey ...	Dr. R. B. Berry ...	Thursday, 2-0—4-0
Broughton ...	Broughton Club, near Preston	Mrs. M. C. Hoey ...	Dr. G. G. Wray ...	Wednesday, 2-0—4-0
Briercliffe ...	Tennyson Street Mission Hall ...	Miss J. Hallett ...	Dr. C. L. Corbett ...	Alternate Wednesday, 2-30—4-0
Church ...	Baptist Sunday School, Ernest Street	Miss A. Guthrie ...	Dr. H. Holroyd ...	Thursday, 2-0—4-0
Dalton ...	Carnegie Library ...	Miss M. Steele ...	Dr. J. R. Jagger ...	Thursday, 2-0—4-0
Droylsden ...	Wesleyan Schools, Manchester Road ...	Miss A. Smith ...	Dr. E. R. Cooper ...	Tuesday, 2-30—4-0
Feniscowles ...	Mission Hall, Preston Old Road	Miss A. Macqueen ...	Dr. H. Holroyd ...	Tuesday, 2-0—4-0
Fleetwood ...	Wesleyan Methodist Sunday School, North Church Street	Miss E. Knowles ...	Dr. R. J. Batty ...	Tuesday, 2-0—4-0

District.	Address of Centre.	Nurse.	Medical Officer.	Day and Time Open.
Fleetwood ...	Elm Street Mission Hall ...	Miss E. Knowles ...	Dr. R. J. Batty ...	Wednesday, 2-0—4-0
Hale Bank ...	Wesleyan Sunday School ...	Miss M. R. McLean ...	Dr. E. H. Brook ...	Alternate Tuesday, 2-0—4-0
Kearsley ...	Council Offices ...	Miss V. Lydall ...	Dr. E. H. Walker ...	Thursday, 2-0—4-0
Leyland ...	Congregational Schools, Quin Street ...	Mrs. A. McTaggart ...	Dr. G. G. Wray ...	Thursday, 2-30—4-0
Leyland ...	Bradshaw Street Mission Room ...	Mrs. A. McTaggart ...	Dr. G. G. Wray ...	Alternate Wednesday, 2-0—4-0
Little Lever ...	Church House Institute ...	Miss G. J. Wellard ...	Dr. E. H. Walker ...	Tuesday, 2-30—4-0
Longridge ...	Drill Hall ...	Mrs. M. C. Hoey ...	Dr. G. G. Wray ...	Alternate Tuesday, 2-0—4-0
Litherland ...	32, Linacre Road ...	Miss M. Robinson Miss E. Shaw ...	Dr. W. Rutherford ...	Tuesday, 2-0—4-0
Lytham ...	Albert Street Mission Hall ...	Miss A. Brand ...	Dr. R. J. Batty ...	Thursday, 2-0—4-0
Morecambe (B.) ...	West End Wesleyan Sunday School ...	Miss G. Menzies ...	Dr. J. A. Tomb ...	Monday, 2-0—4-0
Ormskirk ...	Church House, Church Street ...	Miss H. Dickinson ...	Dr. G. Scholefield ...	Tuesday, 2-0—4-0
Prescot ...	Parish Rooms, Warrington Road ...	Miss A. Walters Miss Hughes ...	Dr. E. H. Brook ...	Monday and Thursday, 2-0—4-0
Skelmersdale ...	Congregational Schools, Witham Street ...	Miss A. E. Fry ...	Dr. E. H. Brook ...	Wednesday, 11-0—1 p.m.



District.	Address of Centre.	Nurse.	Medical Officer.	Day and Time Open.
Ulverston ...	Ratton Row Mission Hall ...	Miss M. F. Crosbie ...	Dr. J. R. Jagger ...	Tuesday, 2-0—4-0
Urmston ...	Co-operative Hall, Higher Road ...	Miss E. M. Lawley ...	Dr. E. H. Scholefield ...	Tuesday, 2-0—4-0
Walkden ...	Town Hall, Worsley ...	Miss A. I. Murphy ...	Dr. E. H. Scholefield ...	Thursday, 2-30—4-0
Waterloo...	United Methodist Sunday School ...	Miss E. C. Collins ...	Dr. E. R. Cooper ...	Alternate Thursday, 2-0—4-0
Whitefield ...	" Uplands " ...	Mrs. F. Tregarthen ...	Dr. H. F. Hutchinson ...	Tuesday, 2-30—4-0
Whitworth ...	Registry Office, Station Road, Facit ...	Miss M. Rochell ...	Dr. Forbes ...	Thursday, 2-45—4-0
Worsley ...	Court House ...	Miss A. I. Murphy ...	Dr. E. T. Scowbie ...	Wednesday, 3-0—4-0

## BRANCH CENTRES FOR DRIED MILKS.

District.	Address of Centre.	Day and Time Open.
Bromley Cross ...	Council Offices	Tuesday, 2-0—4-0
Clayton-le-Moors ...	Council Offices	Monday, 2-0—4-0
Little Hulton ...	Council Offices	Monday, 2-0—4-0
Rishton ...	Council Offices	Monday, 12-0—2-0

**OPHTHALMIA NEONATORUM.**—Ophthalmia neonatorum was made a notifiable disease on the 1st April, 1914, *i.e.*, every case must be notified to the Local Medical Officer of Health. Usually these cases are notified by a Medical Practitioner, but in many cases they are reported by a Certified Midwife. It is the duty of the midwife in such cases to advise that a doctor be sent for, and to send a copy of the Record to the County Medical Officer of Health at the Central Office.

The particulars of every case of ophthalmia neonatorum which is reported to the Local Medical Officer of Health are transmitted by him to the County Medical Officer of Health.

On receipt at the Central Office of the notification of a case of ophthalmia neonatorum at an address which is included in an area under the jurisdiction of the Lancashire County Council for Maternity and Child Welfare purposes, the County Health Visitor is immediately informed and is requested to visit the case at once. A special Form is forwarded to the County Nurse, on which she is asked to make a full report of the case.

When a Medical Practitioner has been in attendance on the case his name and address is forwarded to the County Nurse, and she is requested to visit him, in the first instance, with regard to the case.

During the period from the 24th September, 1919, to the 31st December, 1919, 26 cases were visited and kept under observation by the County Health Visitors. In some cases the Nurse was accompanied by one of the Assistant County Medical Officers.

**The Principal Epidemic Diseases.**—For statistical purposes, and for comparison with previous years, under this head are grouped together small-pox, measles, scarlet fever, diphtheria (including membranous croup), whooping cough, fever (including enteric, typhus, and continued fever), and \*diarrhoea and enteritis.

\* See note, next page.



The deaths assigned to these diseases in the aggregate numbered 821 (urban districts 752, rural districts 69), a diminution as compared with the year 1918 of 658, or nearly 45 per cent.

The following table compares the notified cases and the deaths in 1919 with the previous year :—

	Small-pox.	Measles.	Scarlet fever.	Diphtheria.	Whooping cough.	Enteric fever.	*Diarrhoea.
Notified cases :—							
1919... ..	4	13021	4080	1789	†	152	†
1918... ..	1	21653	1961	1592	†	319	†
Increase or decrease in 1919 ... ..	+3	-8632	+2119	+197	...	-167	...
Deaths :—							
1919... ..	...	130	72	222	86	35	*276
1918 .. ..	...	319	49	244	478	91	*298
Increase or decrease in 1919 ... ..	...	-189	+23	-22	-392	-56	-22

\* The Registrar-General, in his statistics for the whole country, includes under the heading of Diarrhoea and Enteritis *only* those deaths occurring amongst children *under the age of two years*, and for comparative purposes the Administrative County deaths and death-rates since 1916 have been similarly classified; in preceding years the County diarrhoea totals and rates included deaths *at all ages*. The *total* diarrhoea deaths in the Administrative County in 1919 numbered 460, or 99 less than in 1918.

† Not notifiable.

The County death-rate in 1919 from these epidemic diseases, calculated per 1,000 of the estimated civilian population, was 0·49 (urban districts 0·52, rural districts 0·31), as compared with a rate of 0·96 in 1918, 0·78 in 1917, 0·88 in 1916, and an average of 1·23 for the ten years 1909-1918. The rate for the year under report is considerably below any previously recorded, the next lowest being 0·78 in 1917.

The following table gives the epidemic death-rates for the County during 1919, compared with the ten years 1909-1918 :—

YEAR.	Annual Death-rate per 1,000 of the population.							
	Principal Epidemic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Whooping Cough.	* Enteric Fever.	† Diarrhoea and Enteritis.
1909	1.06	nil.	0.35	0.12	0.15	0.14	0.10	0.18
1910	1.00	nil.	0.15	0.10	0.11	0.23	0.10	0.29
1911	2.25	nil.	0.29	0.08	0.14	0.15	0.12	1.43
1912	1.12	nil.	0.30	0.05	0.12	0.24	0.08	0.30
1913	1.57	nil.	0.31	0.05	0.11	0.13	0.10	0.85
1914	1.25	nil.	0.28	0.09	0.13	0.18	0.07	0.48
1915	1.52	nil.	0.49	0.08	0.14	0.20	0.07	0.52
1916	†0.88	0.003	0.17	0.06	0.15	0.14	0.05	†0.27
1917	†0.78	nil.	0.27	0.03	0.13	0.11	0.04	†0.18
1918	†0.96	nil.	0.20	0.03	0.15	0.31	0.05	†0.19
County Average 10 years.	†1.23	0.0003	0.28	0.06	0.13	0.18	0.07	†0.46
†1919								
COUNTY	<b>0.49</b>	nil.	<b>0.07</b>	<b>0.04</b>	<b>0.13</b>	<b>0.05</b>	<b>0.02</b>	<b>0.16</b>
Urban	0.52	nil.	0.08	0.04	0.13	0.05	0.02	0.17
Rural	0.31	nil.	0.02	0.02	0.09	0.01	0.02	0.12

\* Prior to 1911 the "fever" death-rate included deaths from typhus and continued fevers (if any). † Enteritis deaths included since 1911. ‡ Since 1916 the County epidemic death-rates and diarrhoea death-rates include deaths from diarrhoea and enteritis under two years of age *only*. Including the total diarrhoea deaths at all ages the County epidemic death-rate in 1919 was 0.60, and the diarrhoea death-rate 0.27. In 1918 these rates were 1.13 and 0.36 respectively.

• The epidemic death-rate of each County district is shown in Table B, page xvi.



In 35 districts the rate was below 0.25 per 1,000

47	„	„	between 0.25 and 0.50 per 1,000
29	„	„	„ 0.50 and 1.00 per 1,000
11	„	„	over 1.00 per 1,000

The highest epidemic death-rates were recorded in 1919 in Leigh (B.) and Widnes (B.) each 1.43, Lytham 1.42, Little Lever 1.30, Atherton 1.22, Aspull and Skelmersdale each 1.09, St. Annes-on-the-Sea 1.04, Tottington 1.03, and Hindley and Litherland each 1.01.

Extending over a period of ten years, the following districts produced high epidemic death-rates :—

Ince-in-Makerfield	...	3.07	Haydock	...	...	2.35
Aspull	...	2.90	Leigh (B.)	...	...	2.32
Golborne	...	2.60	Tyldesley-with-			
Widnes (B.)	...	2.56	Shakerley	...	...	2.28
Hindley	...	2.44	Prescot	...	...	2.27
Ashton-in-Makerfield...		2.42				

**Small-pox.**—In the year 1919 four cases of small-pox were reported in the Administrative County area, all at Eccles (B.). Three other suspected cases came to the knowledge of the County Public Health Department, but on enquiry the diagnosis was not confirmed.

The four cases in Eccles were notified on December 21st, and two others cases were reported on January 2nd, 1920.

In August a report was received by the County Public Health Department that a case of small-pox had occurred in a Lancashire County Borough, and that a number of residents in the County area had been in contact. The districts concerned were visited by the County Public Health Staff, working in conjunction with the local officials, and all the contacts were kept under observation. No spread of the disease took place.

The incidence of small-pox in the Administrative County since 1890 is given below :—

Year.	Cases.	Deaths.	Year.	Cases.	Deaths.
1890.....	1 .....	0	1905.....	255 .....	6
1891.....	2 .....	0	1906.....	233 .....	0
1892.....	612 .....	70	1907.....	13 .....	1
1893.....	1038 .....	84	1908.....	2 .....	1
1894.....	259 .....	25	1909.....	7 .....	0
1895.....	100 .....	19	1910.....	23 .....	0
1896.....	83 .....	10	1911.....	21 .....	0
1897.....	3 .....	0	1912.....	1 .....	0
1898.....	6 .....	1	1913.....	10 .....	0
1899.....	16 .....	1	1914.....	14 .....	0
1900.....	59 .....	3	1915.....	3 .....	0
1901.....	6 .....	0	1916.....	46 .....	6
1902.....	436 .....	22	1917.....	0 .....	0
1903.....	1156 .....	68	1918.....	1 .....	0
1904.....	422 .....	22	<b>1919.....</b>	<b>4 .....</b>	<b>0</b>

VACCINATION.—The last issued report of the Medical Department of the Local Government Board (1918-1919) states:—"The statistics show that during the five years 1913-1917 the number of children vaccinated has continued to decrease, and the number of children exempted by statutory declaration has continued to increase. The percentage vaccinated in 1917 was 43·3, the percentage exempted 37·9, while 12·0 per cent. of the children born in that year were unaccounted for as regards vaccination. The percentage of the children vaccinated of the number born probably decreased to about 40 per cent. in 1918."

The 1917 figures show that the proportion of vaccinated children to the births varied within considerable limits. The proportion for England and Wales was 43·3 per cent. In the Counties, Cheshire is highest with 57·8 per cent., followed by Lancashire with 54·8 per cent.

The report referred to points out that the circumstances of the war have had the effect of increasing the number of



persons who have been revaccinated, for although revaccination was not compulsory throughout the new army, still a very large proportion were revaccinated.

In conclusion, the report states:—"The position, therefore, is that, while the adult population is better protected against attack by small-pox than has previously been the case, this proportion is unequally distributed between the sexes; and as regards the child population, only about half the children under 10 years of age have been vaccinated.

"In recent occurrences of small-pox in this country, prompt notification of cases, speedy isolation of the patients, and diligent inquiry as to contacts to secure their immediate vaccination, have been successful in preventing the spread of infection, but such measures cannot be implicitly relied on when small-pox breaks out in a population unprotected by vaccination."

In August, 1919, the Ministry of Health issued a memorandum as to the supply and use of vaccine lymph for vaccination or revaccination of persons who may have been exposed to small-pox infection.

**Measles.**—In 1919 there were 130 deaths from measles registered in the Administrative County, against 319 deaths in the year 1918, a reduction of 189. In 1917 there were 428 deaths, 286 in 1916, and 817 in 1915.

The ages at death in 1919 were as follow:—

Under 1 year	... ..	... 28 or 21·5 per cent.
Between 1 year and 5 years	... ..	... 82 or 63·0 per cent.
Five years and upwards	... ..	... 20 or 15·3 per cent.

The County death-rate from this disease—more favourable than in any preceding year—was 0·07 per 1,000 of the population (urban districts 0·08, rural districts 0·02), against 0·20 in 1918, 0·27 in 1917, and an average of 0·28 for the ten years 1909-1918. The measles death-rate for England and Wales in 1919 was 0·10.



The highest district death-rates from this disease were :—  
Leigh (B.) 0·53, Little Lever 0·43, Farnworth 0·35, Middleton  
(B.) 0·32, Radcliffe 0·25, Lancaster (B.) and Waterloo-with-  
Seaforth each 0·24, Prescott and Lancaster (R.) each 0·23,  
and Limehurst (R.) 0·22.

Under the Public Health (Measles and German Measles)  
Regulations, 1915, 13,021 cases were notified, a reduction  
of 8,632 cases, as compared with 1918. The case mortality  
was 0·99 per cent. ; in 1918 it was 1·49, and 1·56 in the years  
1917 and 1916. The monthly incidence showed a gradual rise  
from 350 cases in January to 2,500 cases in December.

School closure on account of the prevalence of measles  
was required in only 21 districts, as compared with 54 districts  
in the previous year.

By "The Public Health (Measles and German Measles)  
Regulations, 1915, Rescission Order, 1919," the previous  
Regulation requiring the notification of measles and German  
measles was rescinded as from the 31st December, 1919.

**Scarlet Fever.**—The gradual decline in the prevalence  
of scarlet fever in the County area which had been taking  
place for some years, as shown by the statement below, was  
arrested during the year under review :—

		Cases Notified		Deaths.
1914	.....	8,275	.....	169
1915	.....	7,526	.....	141
1916	.....	5,176	.....	113
1917	.....	2,655	.....	56
1918	.....	1,961	.....	49
1919	.....	4,080	.....	72

The scarlet fever death-rate in 1919 was 0·04 per 1,000  
of the population (urban districts 0·04, rural districts 0·02),  
against a rate of 0·03 in 1918 and 1917, 0·06 in 1916, and an  
average of 0·06 for the ten years 1909-1918.

The case mortality in 1919 corresponded to 1·76 per cent.,  
as compared with 2·49 per cent. in 1918. Of the total deaths,



51·3 per cent. were amongst children under the age of five years.

Notifications were most numerous in Swinton and Pendlebury 324 (9 deaths), Ashton-in-Makerfield 225 (2 deaths), Eccles (B.) 219 (4 deaths), Litherland 181 (8 deaths), Fleetwood 176 (no deaths), Waterloo-with-Seaforth 164 (5 deaths), Radcliffe 123 (6 deaths), and Hindley 112 (1 death).

Of the total scarlet fever cases notified, 47·0 per cent. were removed to hospital ; in 1918 the percentage of removals was 50·5. In ten districts all the cases were removed, and in 13 districts over 80 per cent. of removals took place.

Schools were closed on account of this disease in seven districts.

**Whooping Cough.**—The deaths under this heading numbered only 86, against 478 in the year 1918.

The ages at death were :—

Under 1 year ... .. 25 or 29·0 per cent.

Between 1 year and 5 years ... 55 or 63·9 per cent.

Five years and upwards ... 6 or 6·9 per cent.

The mortality rate was 0·05, as compared with 0·31 in 1918, and an average of 0·18 for the ten years 1909-1918. The rate for England and Wales in 1919 was 0·07.

Of the 86 deaths, 33 occurred in Widnes (B.) and 10 in Eccles (B.). In one district (Preston (R.)) school closure took place.

**Diphtheria and Croup.**—The number of cases of diphtheria notified in 1919 amounted to 1,789, and deaths registered numbered 222, an increase as compared with the previous year of 197 cases, but a decrease of 22 deaths. The percentage of deaths to cases was 12·4, against 15·3 in the year 1918.

The County death-rate in 1919—0·13 per 1,000 of the population—coincided exactly with the average of the preceding ten years and with the 1919 rate for the whole of England and Wales.

Of the deaths 47·2 per cent. were amongst children under the age of five years.

The prevalence of diphtheria was most marked in Leigh (B.) 101 cases (10 deaths), Atherton 82 (8 deaths), Prestwich 76 (8 deaths), Waterloo-with-Seaforth 71 (8 deaths), Ormskirk 69 (4 deaths), Ashton-in-Makerfield 63 (3 deaths), Fleetwood 57 (5 deaths), Haslingden (B.) 55 (5 deaths), Chorley (B.) 53 (12 deaths), and West Lancashire (R.) 50 (4 deaths).

Of the total cases notified 904, or 50·5 per cent., were removed to hospital, with a case mortality of 8·73 per cent. ; 885 cases were treated at home, case mortality 16·15 per cent.

School closure was resorted to in five districts. From 68 districts 1,464 swabs were sent for examination.

**Enteric Fever.**—The following table shows the incidence of enteric fever in the Administrative County from the year 1898 to 1919. As regards the year under review, it will be noted both the cases and the deaths are well below any preceding year :—

	Cases.	Deaths.		Cases.	Deaths.
1898	... 2661	... 478	1909	... 994	... 192
1899	... 2674	... 457	1910	... 1016	... 193
1900	... 2183	... 399	1911	... 1091	... 220
1901	... 2094	... 364	1912	... 620	... 147
1902	... 1747	... 297	1913	... 875	... 180
1903	... 1479	... 277	1914	... 650	... 123
1904	... 1235	... 233	1915	... 530	... 127
1905	... 1335	... 255	1916	... 387	... 94
1906	... 1248	... 252	1917	... 302	... 74
1907	... 859	... 164	1918	... 319	... 91
1908	... 1219	... 224	1919	... 152	... 35

The attack-rate per 1,000 of the estimated population, which in 1898 was 1·41, was only 0·09 in the year under report. The case mortality in 1919 corresponded to 23·0 per cent.



The County death-rate from enteric fever was 0·02 per 1,000, compared with an average of 0·07 for the ten years 1909-1918. The rate for the whole of England and Wales in 1919 was 0·01.

Of the total persons attacked, 49·3 per cent. were isolated in hospital. The hospital case mortality was 17·33 per cent., against home mortality 28·57 per cent.

In 55 districts no cases were reported.

Blood specimens submitted for examination numbered 157 from 45 districts.

Under Article XV. of the Public Health (Pneumonia, Malaria, Dysentery, &c.) Regulations, 1919, power is given to a Medical Officer of Health to deal with any person who is a carrier of enteric fever infection.

**Diarrhœa and Enteritis.**—Diseases classified under this heading gave rise to 460 deaths *at all ages*, as compared with 559 deaths in 1918 and 578 in 1917.

The Registrar-General in his statistics now includes under this heading *only deaths of children under two years of age*. The number of such deaths in the County in 1919 was 276, or 22 fewer than in the previous 12 months.

The County diarrhœa and enteritis death-rate, if calculated on the *total deaths at all ages* from these diseases corresponded to 0·27 per 1,000 of the estimated civil population (urban districts 0·28, rural districts 0·23) as compared with a rate of 0·36 in the year 1918. If only deaths *amongst children under two years of age* are taken into consideration, the County death-rate was 0·16 per 1,000 (urban districts 0·17, rural districts 0·12), as compared with 0·19 in 1918, 0·18 in 1917, and 0·27 in 1916.

Of the total diarrhœa deaths (460), 233, or 50·6 per cent., were amongst children under one year of age, 73, or 15·8 per cent., children between one and five years, and 154, or 33·4 per cent., persons over five years of age.



The County diarrhoea and enteritis deaths amongst children under two years of age amounted to 9·58 per 1,000 of the total births in 1919, being almost identical with the rate for the whole of England and Wales, which was 9·59.

The diarrhoea and enteritis death-rate *in children under two years of age* was greatest in Aspall 0·82, Skelmersdale 0·77, Haydock 0·62, and Leigh (B.) 0·60.

**Acute Poliomyelitis.**—Deaths due to acute poliomyelitis numbered 5, and 20 cases were notified under the Regulations of August, 1912. In 1918 the cases numbered 11, and deaths 9.

**Cerebro-Spinal Fever.**—Eighteen deaths were registered as due to cerebro-spinal fever, and 38 cases were reported under the 1912 Regulations. In 1918 there were 17 cases notified, and 15 deaths registered. Notification of this disease, and of acute poliomyelitis, is not carried out satisfactorily, as it is often found, on enquiry after a death has been reported, that the case had not been notified.

By General Order, dated 16th June, 1919, certain Regulations of 1918 were rescinded and new Regulations were substituted authorising the Council of any Administrative County or County Borough to provide or arrange for (1) the examination and treatment of any person who is either suspected to be suffering from cerebro-spinal fever, or has been in contact with a person suffering or suspected to be suffering from the disease; and (2) for the provision of serum and vaccine for the treatment of cases, or suspected cases, of the disease, together with the necessary apparatus for the use of the serum or vaccine.

**Acute Encephalitis Lethargica and Acute Polio-encephalitis.**—By Regulations operative from 1st January, 1919, the Regulations of 1918, which made these diseases compulsorily notifiable for a period of one year, were continued in force until the Minister of Health by Order otherwise directs.

Under the Regulations 26 cases were notified during the year 1919.



**Ophthalmia Neonatorum.**—Under “The Public Health (Ophthalmia Neonatorum) Regulations, 1914,” 337 cases were reported during the year under review, against 232 cases in 1918 and 246 in 1917. Further reference to this disease is made on page lxxxiv. in connection with the work carried out under the Midwives Acts.

**Influenza.**—In the absence of notification it is not possible to state the number of cases of influenza, but in the County area, during the year 1919, the deaths registered numbered 2,463 which, with the 4,492 deaths in 1918, make a total of close on seven thousand deaths.

The ages at death were as follow :—

	All Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.
1918...	4492	86	123	279	501	631	1548	927	397
1919...	2463	87	54	89	128	260	784	662	399

The disease first assumed epidemic proportions in this County in July, 1918, when over 600 fatalities occurred; in August and September the mortality was almost normal, followed by a severe outburst of the disease in the last quarter, when over 2,000 deaths were attributed to influenza. In January, 1919, fatalities fell to one hundred, but in the two months, February and March, these again rose to over 1,700. From that time the deaths rapidly diminished, and during the last six months of 1919 they averaged about a dozen per month.

The County death-rate from influenza in 1919 was 1·48 per 1,000 of the population, against a rate of 2·90 in the year 1918. The percentage of influenza deaths to total deaths from all causes was 10·52 per cent. in 1919, and 16·91 per cent. in the preceding year.

High influenza death-rates were attained in Croston 4·21, West Lancashire (R.) 3·94, Morecambe (B.) 2·99, Kearsley 2·98, Upholland 2·95, Wigan (R.) 2·89, Blackrod 2·82, Formby 2·71, Widnes (B.) 2·67, Haydock 2·47, Standish-with-Langtree 2·43, and Farnworth 2·40.

Schools were closed on account of the prevalence of influenza in 43 districts.



In February, 1919, the Local Government Board issued a Memorandum on the prevention of influenza, accompanied by a specimen leaflet of advice to the public on precautions to be taken against the disease and this was revised in December, 1919.

In this month the Ministry of Health also made arrangements for the preparation of a stock of anti-influenza vaccine, available for distribution through Medical Officers of Health to medical practitioners who may wish to use it.

The Public Health (Influenza) Regulations of 18th and 22nd November, 1918, which prescribed certain precautions to be adopted at places of entertainment, &c., were rescinded by Order, dated 6th May, 1919.

**Bronchitis and Pneumonia.**—The total deaths assigned to these diseases in 1919 were :—

Bronchitis 2,410 (males 1,103, females 1,307).

Pneumonia 1,940 (males 1,113, females 827).

The corresponding totals for the year 1918 were 2,181 and 2,604.

The County death-rate from bronchitis in 1919 was 1·44 per 1,000 of the population, and from pneumonia 1·16. In 1918 these rates were 1·41 and 1·69 respectively.

In the aggregate these two diseases contributed in the year under review 18·5 per cent. of the total deaths from all causes, or with influenza added, 29·1 per cent.

High death-rates from bronchitis and pneumonia were recorded in Aspall 4·81, Wigan (R.) 4·59, Rainford 4·53, Lathom and Burscough 4·33, Ince-in-Makerfield and Limehurst (R.) each 4·26, Radcliffe 4·22, Prescott 4·07, and Ashton-under-Lyne (B.) 4·0.

In January, 1919, the Local Government Board issued a Memorandum relative to the classification and bacteriology of pneumonia, the predisposing causes, prophylaxis, and general administrative measures.



THE PUBLIC HEALTH (PNEUMONIA, MALARIA, DYSENTERY, &C.) REGULATIONS, 1919.—The Regulations, dated 7th January, 1919, were made by the Local Government Board with the object of securing better control over, and means for treatment of, certain epidemic diseases which were prevalent or threatened at the time. The Regulations apply to malaria, dysentery, trench fever, acute primary pneumonia, acute influenzal pneumonia, enteric fever, relapsing fever, and typhus fever. The first five diseases mentioned were made compulsorily notifiable.

The Regulations also prescribed the duties of Medical Officers of Health in relation to these diseases and the precautions to be adopted. In July a leaflet was issued—“ Suggestions for the Care of Malaria Patients.”

Under the above Regulations the following notifications were received :—

Acute primary pneumonia and acute influenzal pneumonia	...	...	...	...	...	2,915
Malaria	...	...	...	...	...	770
Dysentery	...	...	...	...	...	190
Trench fever	...	...	...	...	...	3

**Rabies.**—In June, 1919, the Local Government Board issued a revised Memorandum on the procedure recommended to be followed in the event of persons being bitten by dogs suspected or ascertained to be rabid.

**Tetanus.**—A Memorandum on the prophylactic use of tetanus anti-toxin was issued by the Ministry of Health in October, 1919. A supply of this anti-toxin is kept available in the County Public Health Department. To December 31st, 1919, 125 phials had been issued to medical practitioners.

OTHER MEMORANDA issued in 1919 (27th February) by the Local Government Board included one on measures for the prevention of lousiness and itch.

**Organic Heart Disease.**—The mortality from this disease corresponded to 1.39 per 1,000 of the population, the total deaths in 1919 amounting to 2,323, or 73 more than the number registered in 1918.

**Cancer, Malignant Disease.**—The fatalities ascribed to cancer during 1919 numbered 1,793 (males 774, females 1,019), as compared with 1,727 in the year 1918 and 1,713 in 1917.

The County cancer death-rate for 1919 is fractionally less than that of 1918, but it is double the rate of 20 years ago.

This rate has shown a steady increase for some years, as will be seen from the table below, which compares the County rate with that for England and Wales :—

Year.	Administrative County.		England and Wales (crude rates).
	No. of Deaths.	Death-rate per 1,000.	Death-rate per 1,000.
1909	1,374	0.75	0.95
1910	1,333	0.74	0.96
1911	1,493	0.86	0.99
1912	1,466	0.83	1.01
1913	1,618	0.92	1.05
1914	1,668	0.95	1.06
1915	1,577	0.94	1.12
1916	1,728	1.06	1.16
1917	1,713	1.09	1.21
1918	1,727	1.12	1.21
Average 1909-1918	1,569	0.92	1.07
1919	1,793	1.07	*1.17

\* Calculated from Quarterly Returns of Registrar-General.

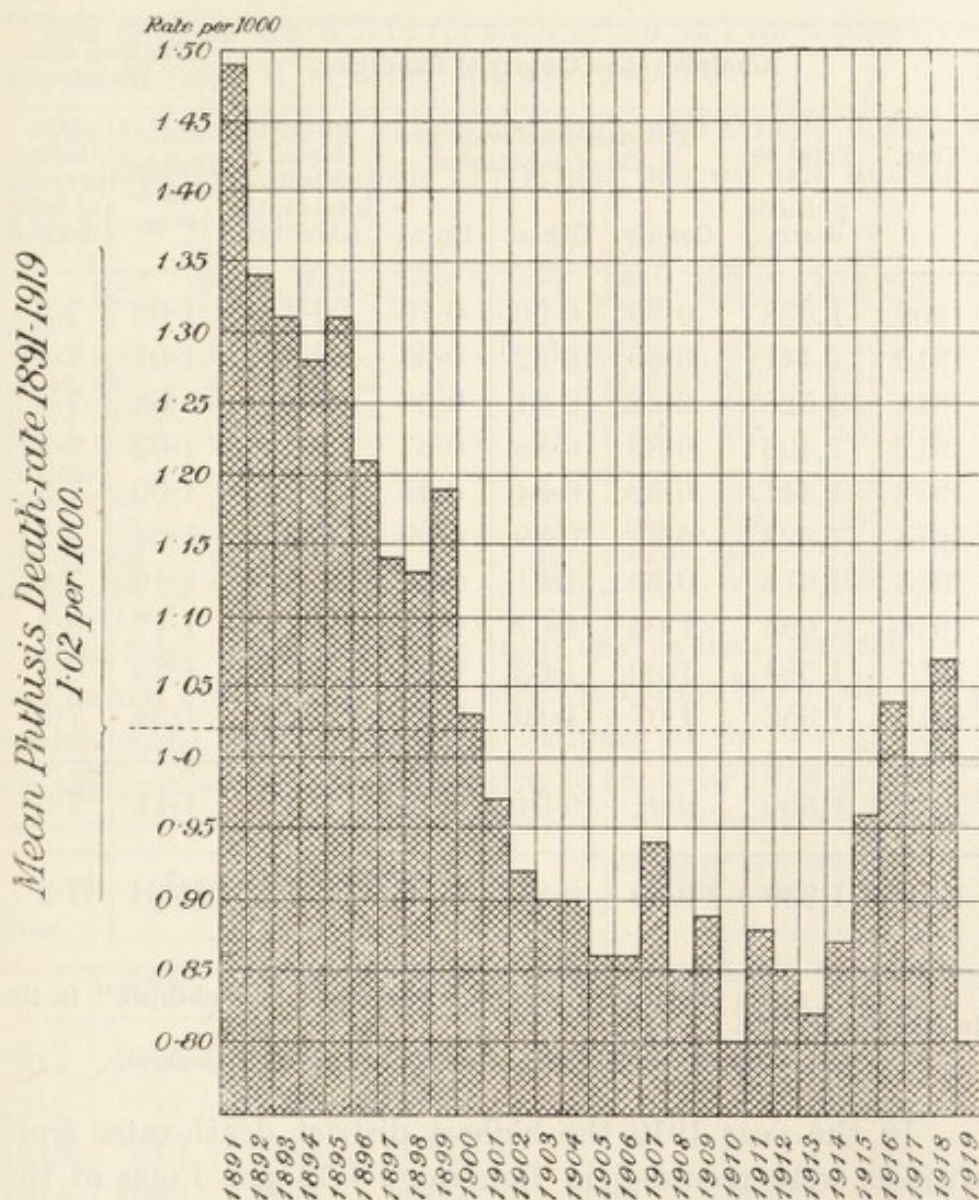


**Phthisis (Pulmonary Tuberculosis).**—The deaths of civilians during 1919, assigned to phthisis (pulmonary tuberculosis) numbered 1,339—males 675, females 664—or 313 less than those so classified in the preceding twelve months. The proportion of phthisis deaths to deaths from all causes was 5·7 per cent. in 1919, against 6·2 and 7·2 per cent. respectively in the years 1918 and 1917.

Phthisis this year ranks sixth in the diseases responsible for the highest number of deaths from any defined cause, the five with greater mortality being influenza, bronchitis, organic heart diseases, pneumonia, and cancer.

The County phthisis death-rate in 1919 was equal to 0·80 per 1,000 of the estimated civilian population, the rate in the urban districts being 0·81 and in the rural districts 0·75. Last year the rates were—County 1·07, urban districts 1·10, rural districts 0·88. The mortality from phthisis in 1919 was below any previously recorded for the Administrative County excepting the year 1910, when it was exactly the same. In 1917 the rate was 1·0, 1·04 in 1916, 0·96 in 1915, 0·87 in 1914, and the County average of the ten years 1909-1918 was 0·91.

The Diagram below shows the County phthisis death-rate for the year under report, contrasted with the preceding 28 years, and the mean of the whole period :—



In comparing the phthisis death-rates of part of the war period, *i.e.*, 1916-1918 with other years, the fact should be noted that the estimated population on which the rate is based in these years is the "civilian" population referred to on page ix. The County rate for 1919 is also calculated on the "civilian" population, but this estimate is 125,000 in excess of the estimate for 1918.



The following table shows the rates of phthisis deaths to total deaths in the Administrative County, compared with the whole of England and Wales :—

Year.	Administrative County of Lancaster.					England and Wales.	
	Total No. of phthisis deaths	Phthisis death-rate per 1,000 of population.			Phthisis Mortality per cent. of total deaths (County).	Phthisis death-rate.	Mortality per cent. of total deaths.
		County.	Urban.	Rural.			
1909	1,638	0.89	0.90	0.79	6.4	1.08	7.5
1910	1,441	0.80	0.82	0.66	6.3	1.01	7.5
1911	1,528	0.88	0.91	0.66	5.8	1.08	7.4
1912	1,495	0.85	0.88	0.67	6.2	1.03	7.8
1913	1,441	0.82	0.84	0.71	5.7	1.00	7.3
1914	1,523	0.87	0.89	0.69	6.2	1.04	7.5
1915	1,614	0.96	1.01	0.70	6.3	1.16	7.4
1916	1,685	1.04	1.07	0.81	7.2	1.17	8.2
1917	1,584	1.00	1.03	0.84	7.2	1.25	8.7
1918	1,652	1.07	1.10	0.88	6.2	1.34	7.6
10 years average	1,560	0.91	0.94	0.74	6.3	1.11	7.6
1919	1,339	0.80	0.81	0.75	5.7	*1.01	*7.2

In 1911, Acute Miliary Tuberculosis was added to "phthisis" in the International Code.

\*Calculated from Quarterly Returns of Registrar-General.

In the year 1919 the highest district death-rates from phthisis were recorded in Longridge 1.73 per 1,000 of the population, Blackrod and Haydock each 1.54, Wardle 1.51, Litherland and Prestwich each 1.36, Ormskirk 1.35, Whiston (R.) 1.26, Failsworth 1.25, Widnes (B.) 1.22, and Droylsden 1.21. Rates for one year, especially in districts with comparatively small populations, are apt to be misleading; in the following County districts the phthisis death-rates, extending over a period of *ten years*, are well above the average :—Ashton-under-Lyne (B.) and Kirkham each 1.42,

Ormskirk 1·40, Whitworth 1·37, Heywood (B.) 1·27, Dalton-in-Furness and Grange-over-Sands each 1·26, Lancaster (B.) 1·25, Failsworth 1·24, Hurst 1·22, and Leigh (B.) 1·20.

The phthisis death-rate for each urban and rural district is shown on Table B, inserted opposite page xvi.

The following table shows the male and female deaths from pulmonary tuberculosis at various age periods during the last four years:—

	At all Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upw'ds.
Males—									
1916 ...	900 ...	2 ...	6 ...	11 ...	28 ...	133 ...	392 ...	300 ...	28
1917 ...	827 ...	5 ...	7 ...	6 ...	21 ...	125 ...	380 ...	252 ...	31
1918 ...	844 ...	2 ...	7 ...	8 ...	31 ...	136 ...	370 ...	253 ...	37
1919 ...	675 ...	4 ...	4 ...	8 ...	20 ...	98 ...	286 ...	225 ...	30
Females—									
1916 ...	785 ...	3 ...	9 ...	11 ...	68 ...	180 ...	370 ...	129 ...	15
1917 ...	757 ...	4 ...	4 ...	11 ...	63 ...	196 ...	333 ...	133 ...	13
1918 ...	808 ...	2 ...	1 ...	4 ...	55 ...	215 ...	373 ...	139 ...	19
1919 ...	664 ...	2 ...	4 ...	8 ...	45 ...	167 ...	293 ...	118 ...	27

The table below gives the total deaths from phthisis in the County during 1911-1919, distinguishing the male and female deaths, and showing the increase in the war period over the number of deaths occurring in the year 1913:—

Year.	Deaths from phthisis.			Increase or decrease on 1913 totals.		
	Males.	Females.	Total.	Males.	Females.	Both Sexes.
1911	*875	*758	*1633	...	...	...
1912	*897	*702	*1599	...	...	...
1913	*813	*694	*1507	...	...	...
1914	*862	*730	*1592	+49	+36	+85
1915	*896	*795	*1691	+83	+101	+184
1916	900	785	1685	+87	+91	+178
1917	827	757	1584	+14	+63	+77
1918	844	808	1652	+31	+114	+145
1919	675	664	1339	-138	-30	-168

\* Totals taken from Registrar-General's Reports differ slightly from totals in County Health Reports.



**Other Tuberculous Diseases.**—Tuberculous meningitis was responsible for 101 deaths, and “ other tuberculous diseases ” 257 deaths, making—with the 1,339 phthisis deaths—the aggregate fatalities assigned to tuberculous affections 1,697, as compared with 2,087 in the year 1918, a decrease of 390.

The combined tuberculosis death-rate in 1919 was 1·02, against a rate of 1·35 in the previous year, 1·30 in 1917, and 1·33 in 1916.

The table below shows the deaths in 1919 from tuberculous diseases, compared with the years 1918 and 1917 :—

Cause of Death.	All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards
Phthisis (Pulmonary Tuberculosis) .....	1339	6	8	16	65	265	579	343	57
Tuberculous Meningitis ....	101	13	13	32	31	8	4	..	..
Other Tuberculous Diseases..	257	15	15	34	56	50	46	31	10
<b>Total 1919..</b>	<b>1697</b>	<b>34</b>	<b>36</b>	<b>82</b>	<b>152</b>	<b>323</b>	<b>629</b>	<b>374</b>	<b>67</b>
<b>Year 1918 ..</b>	<b>2087</b>	<b>40</b>	<b>55</b>	<b>80</b>	<b>188</b>	<b>419</b>	<b>816</b>	<b>427</b>	<b>62</b>
<b>Year 1917 ..</b>	<b>2050</b>	<b>54</b>	<b>54</b>	<b>96</b>	<b>193</b>	<b>384</b>	<b>783</b>	<b>432</b>	<b>54</b>

**THE PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.**—Tables C and D, here inserted, analyse, both as regards parts of the body affected and in age periods, the notifications received weekly during the fifty-three weeks ended 3rd January, 1920, from local Medical Officers of Health.

The total number of cases reported under the Regulations, excluding 198 duplicates, 606 notifications on Form C (admissions to institutions), and 586 on Form D (discharges from institutions), numbered 2,952, or 467 less than in the year 1918, although the “ year ” shown on the tables includes 53 weeks, against 52 weeks in the 1918 tables. Pulmonary tuberculosis contributed 2,105 cases (429 less than in 1918), and other forms of tuberculosis 847 cases, 38 less than in the preceding year.





STATEMENT OF INVESTMENT

Date	Investment		Withdrawal		Balance
	Particulars	Amount	Particulars	Amount	
1911					
Jan 1		100.00			100.00
Feb 1		50.00			150.00
Mar 1		25.00			175.00
Apr 1		12.50			187.50
May 1		6.25			193.75
Jun 1		3.12			196.87
Jul 1		1.56			198.43
Aug 1		0.78			199.21
Sep 1		0.39			199.60
Oct 1		0.19			199.79
Nov 1		0.09			199.88
Dec 1		0.05			199.93
Total		199.93			199.93

STATEMENT OF INVESTMENT

Date	Investment		Withdrawal		Balance
	Particulars	Amount	Particulars	Amount	
1912					
Jan 1		100.00			100.00
Feb 1		50.00			150.00
Mar 1		25.00			175.00
Apr 1		12.50			187.50
May 1		6.25			193.75
Jun 1		3.12			196.87
Jul 1		1.56			198.43
Aug 1		0.78			199.21
Sep 1		0.39			199.60
Oct 1		0.19			199.79
Nov 1		0.09			199.88
Dec 1		0.05			199.93
Total		199.93			199.93







Since 1st February, 1913, tuberculosis, both "pulmonary" and "other forms" has been compulsorily notifiable; previous to that date it was only partially notifiable.

The table below differentiates the male and female cases at certain specified age groups:—

Years.												Total.	Total, M. & F.
	0 to 1.	1 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 and up.		
<i>Pulmonary tuberculosis—</i>													
1913.. M.	1	24	97	70	129	131	311	292	228	114	29	1426	} 2700
(11 m'nths) F.	6	28	100	104	158	188	296	201	103	65	25	1274	
1914.. M.	6	40	80	83	112	172	329	315	240	107	23	1507	} 2820
F.	3	32	115	107	140	181	336	225	107	47	20	1313	
1915.. M.	5	47	97	79	127	138	305	303	235	117	34	1487	} 2872
F.	5	27	96	111	152	191	383	239	100	60	21	1385	
1916.. M.	1	31	71	77	121	157	331	296	190	96	36	1407	} 2689
F.	2	24	81	96	165	186	345	220	98	52	13	1282	
1917.. M.	4	20	77	62	113	104	262	268	190	90	30	1220	} 2375
F.	2	22	90	100	129	155	296	185	107	50	19	1155	
1918.. M.	3	35	55	59	140	108	300	317	232	98	28	1375	} 2534
F.	1	24	69	74	139	166	297	207	117	52	13	1159	
1919.. M.	2	22	53	55	94	107	238	212	165	91	17	1056	} 2105
F.	5	14	54	80	126	161	261	184	99	41	24	1049	
<i>Non-pulmonary tuberculosis—</i>													
1913.. M.	29	128	177	137	98	58	71	48	27	18	3	794	} 1592
(11 m'nths) F.	28	118	134	132	118	86	80	47	29	19	7	798	
1914.. M.	43	111	131	95	77	36	47	23	20	14	3	600	} 1140
F.	37	88	98	89	77	44	58	27	12	6	4	540	
1915.. M.	39	109	113	93	61	46	50	29	14	5	3	562	} 1128
F.	26	88	107	88	84	53	61	33	15	7	4	566	
1916.. M.	20	127	135	99	65	42	47	34	12	13	5	599	} 1180
F.	8	68	122	114	85	46	65	41	19	11	2	581	
1917.. M.	21	116	109	105	61	23	42	30	8	9	1	525	} 1062
F.	7	79	97	98	89	59	49	25	23	6	5	537	
1918.. M.	14	75	103	65	60	19	29	16	14	7	2	404	} 885
F.	10	75	84	92	80	46	46	29	9	6	4	481	
1919.. M.	13	50	97	80	53	26	31	22	19	12	4	407	} 847
F.	10	59	98	76	61	43	41	29	11	7	5	440	



For reference, and for the information of the County Tuberculosis Department, a card index of every case notified is kept up-to-date in the County Public Health Department.

The administration of "Sanatorium Benefit" under the Insurance Act and the treatment of tuberculosis in general, is undertaken in this County by the County Tuberculosis Committee. The County Public Health Department supplies to the Tuberculosis Department copies of all notifications of cases of tuberculosis received weekly from district Medical Officers of Health.

**The Public Health (Venereal Diseases) Regulations, 1916.**

—Under these Regulations the County Public Health Department has prepared and put into operation a scheme for the diagnosis and treatment of venereal diseases.

The scheme provides facilities for—

(1) enabling any medical practitioner practising in the area of the County Council to obtain, at the cost of the County Council, a scientific report on any material which the medical practitioner may submit from a patient suspected to be suffering from venereal disease.

(2) the treatment at and in hospitals or other institutions of persons suffering from venereal disease, and

(3) supplying medical practitioners with salvarsan, or its approved substitutes, for the treatment and prevention of venereal diseases.

The facilities mentioned, both for diagnosis and treatment, are available to registered medical practitioners without charge to them or to their patients.

**(1) PROVISION OF LABORATORY FACILITIES FOR DIAGNOSIS AND GUIDANCE IN TREATMENT.**

Arrangements have been made by which any medical practitioner practising in the area of the County Council will be supplied gratuitously with the necessary outfit for collecting material for examination from persons suspected to be suffering from venereal disease, and a scientific report upon the material submitted will be furnished.

The Laboratories available for such examinations are :—

LIVERPOOL ... The University of Liverpool, City Laboratories, and School of Hygiene, Mount Pleasant (Prof. Beattie).

MANCHESTER ... The University of Manchester, Pathological Department, Oxford Road (Prof. Dean).

BURNLEY ... The Borough Health Department Laboratory (Dr. R. J. M. Horne).

*Nature of Examination.*

(a) Microscopic examination of discharges for detection of gonococci, confirmed in exceptional cases by cultural methods.

(b) Microscopic examination of discharge from sores, mucous patches, condylomata, &c., for the detection of spirochetes or of other organisms.

\*(c) Wassermann tests on the blood serum of patients—

(i.) for the diagnosis of syphilis.

(ii.) as a control of the effect of treatment.

(d) Examination of foetal tissues for the presence of spirochetes.

(e) More rarely Wassermann tests and microscopic examination of the cerebro-spinal fluid of patients.

(f) Other tests directly concerned with the diagnosis or treatment of venereal diseases.

Outfits for forwarding specimens to the laboratories are supplied gratuitously on application to the Public Health Department, County Offices, Preston.

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\* Specimens of blood for Wassermann tests should be forwarded as early in the week as possible, to arrive at the Laboratory *not later* than first post on Friday morning, in order that the specimens will not have to be kept over the week-end before the examination is completed.



(2) TREATMENT CENTRES OR CLINICS.

*Arrangements for Treatment.*

The County Council has made arrangements with the undermentioned Institutions for the treatment of patients residing in the County Council's area (revised August, 1920):—

Treatment Centre.	Days and Hours of Out-Patient Clinic.	
	MALES.	FEMALES.
Ashton-under-Lyne District Infirmary, Darnton Road	Wednesday, 3—4 p.m. Thursday, 6—8 p.m. Friday, 3—4 p.m.	
Barrow-in-Furness, North Lonsdale Hospital, School Street	Wednesday, 10 a.m. Thursday, 8 p.m. Saturday, 10 a.m.	Wednesday, 8 p.m. Friday, 10 a.m.
	<i>Irrigation :—</i>	
	Daily, 10 a.m., 12 noon, and 6—7 p.m.	Daily, 10 a.m.
	<i>N.B.</i> —Apprehensive cases present themselves at the Clinics.	
Blackburn and East Lancashire Royal Infirmary	Monday, 5—7 p.m. Wednesday, 3-30 p.m.	Tuesday, 4 p.m. Wednesday, 5—7 p.m.
	<i>N.B.</i> —New patients should present themselves 15 minutes before above hours.	
Blackpool Victoria Hospital, Whitegate Drive	Monday, Wednesday, Thursday, and Saturday, 11 a.m.—12-30 p.m.	Tuesday and Friday, 11 a.m.—12-30 p.m.
Bolton Public Health Department Clinic, Howell Croft, North	Monday, 7 p.m. Tuesday, 7 p.m. Wednesday, 11 a.m. and 7 p.m.	Thursday, 7 p.m. Saturday, 10 a.m.
Bootle Borough Hospital, Derby Road	Monday, 5-30 p.m. Thursday, 12 noon Friday, 5-30 p.m.	Monday, 12 noon Friday, 5 p.m.
Burnley Victoria Hospital	Monday, 10—11 a.m., 5-30—7 p.m.	Friday, 11 a.m.—12 noon; 6—7 p.m.
Bury Dispensary, The Wylde	Friday, 6-30—8-30 p.m.	Tuesday, 6-30—8-30 p.m.

Treatment Centre.	Days and Hours of Out-Patient Clinic.	
	MALES.	FEMALES.
Liverpool Royal Infirmary, Pembroke Place	New Patients :— Monday, 12 noon Wednesday, 5 p.m. Friday, 12 noon	
	Thursday, 12 noon	
	Continuation Treatment :—	
	Daily, 5—6 p.m. (except Saturday, Sunday and Monday)	Daily, 2—4 p.m. (except Saturday, Sunday and Monday)
Liverpool David Lewis Northern Hospital (en- trance in Leeds Street)	New Patients :— Monday and Friday, 5—6 p.m.	
	Wednesday, 5—6 p.m.	
	Continuation Treatment :—	
	Tuesday, Wednesday, Thursday, and Saturday, 6—8 p.m.	
Liverpool Royal Southern Hospital, Caryl Street	New Patients :— Tuesday, 5 p.m. Friday, 1-30 p.m. Saturday, 1 p.m.	
	Thursday, 5 p.m.	
	Continuation Treatment :—	
	Daily, 5 p.m. (except Sunday)	Daily, 5 p.m. (except Sunday)
	Saturday, 1 p.m.	Saturday, 1 p.m.
Liverpool Stanley Hospital, Stanley Road, Kirkdale	New Patients :— Monday and Thursday, 5—6 p.m.	
	Tuesday, 5—6 p.m. Saturday, 12 noon	
	Continuation Treatment :—	
	Daily, 6—7 p.m. (except Tuesday, Saturday, and Sunday)	Daily, 11 a.m. (except Sunday)
Liverpool Cancer and Skin Hospital, Myrtle Street	New Patients :— Daily, 1—2 p.m.	
	Thursday, 5-30—6 p.m.	
	Continuation Treatment :—	
	Daily, 9—10 a.m., 1—2 p.m., and 6—7 p.m. Sundays, 11 a.m.—12 noon	



Treatment Centre.	Days and Hours of Out-Patient Clinic.	
	MALES.	FEMALES.
Manchester Royal Infirmary, Oxford Road	Diseases of Skin :—	
	Wednesday, 6—8 p.m.	Thursday, 11 a.m. to 1 p.m.
	Diseases of Genito-Urinary Organs :—	
	Thursday, 6—8 p.m.	Wednesday, 11 a.m.—1 p.m.
	Diseases of Skin and Genito-Urinary Organs :—	
	Friday, 4-15—6-15 p.m.	Thursday, 9—11 a.m.
Manchester and Salford Lock Hospital, Duke Street, Liverpool Road	Monday, 5—7 p.m.	
	Tuesday, 5—7 p.m.	
	Thursday, 5—7 p.m.	
	Friday, 5—7 p.m.	
		Wednesday, 5—7 p.m.
Manchester and Salford Hospital for Skin Diseases, Quay Street, Deansgate (Syphilis only treated at this Hospital)	Daily (Sunday excepted)	
	9—10 a.m.	9—11 a.m.
	Children, 9—11 a.m.	
Manchester, St. Mary's Hospitals (Whitworth Street West Branch), Oxford Street	Daily (Saturday & Sunday excepted)	
	9—10-30 a.m.	
	Wednesday, 5—7 p.m.	
Manchester, Ancoats Hospital, Mill St., Ancoats	Wednesday, 5-30—7 p.m.	Wednesday, 11-30 a.m.—1 p.m.
	Saturday, 5—7 p.m.	
Oldham Royal Infirmary, Union Street West	New Patients :—	
	Tuesday, 8-30 p.m.	Tuesday, Wednesday, Thursday, and Friday, 3 p.m.
	Continuation Treatment :—	
	Tuesday, 8-30 p.m.	Tuesday and Thursday, 2-30 p.m.
	Wednesday and Friday, 2-30 p.m.	
Preston Royal Infirmary, Deepdale Road	Wednesday, 4-30—7 p.m.	Tuesday, 4-30—7 p.m.
	Friday, 4-30—7 p.m.	

Treatment Centre.	Days and Hours of Out-Patient Clinic.	
	MALES.	FEMALES.
Rochdale Infirmary, Red-cross Street	Tuesday, 10 a.m. Friday, 5-30 p.m.	Friday, 4-30 p.m.
Salford Royal Hospital, Chapel Street. Out-patient Clinic—1, Adelphi Place, back of Hospital	Skin Department :— Monday, 12 noon Thursday, 6 p.m. Genito-Urinary Department :— Tuesday, 12 noon Friday, 6 p.m.	
Southport Infirmary, Scarisbrick New Road	Daily (except Sunday), 8-30 a.m. Monday to Friday, 6 p.m. Saturday, 2-30 p.m.	Daily (except Saturday and Sunday), 2 p.m.
St. Helens Corporation Hospital. Out-patient Clinic—18, Cloughton Street	Monday, 6—7 p.m.	Wednesday, 7—8 p.m. (and Children)
	Disinfection and Irrigation :— Daily, 9-30 a.m. to 5-30 p.m.	
Warrington Infirmary and Dispensary, Kendrick St. Out-patient Clinic—Beaumont Street entrance	Tuesday, 3-30 p.m. Saturday, 5 p.m.	Tuesday, 5 p.m. Saturday, 3-30 p.m.
Wigan Royal Albert Edward Infirmary, Wigan Lane	Tuesday, 4 p.m. Friday, 10 a.m.	Tuesday, 5 p.m. Friday, 10 a.m.

Each Institution is available for the *free* treatment of all comers, without distinction as to means, or as to place of residence.

Every patient attending for diagnosis or treatment can be assured that, although his home address will be kept confidentially for reference, it will never be communicated to others. It is necessary for the Medical Officer of the Institution to have the home address, in order to arrange subsequent appointments.

Patients attending for the treatment of venereal diseases will not be distinguished in any way from patients attending for treatment of other diseases. A nurse will always assist at the clinic for women.



Patients requiring Institutional treatment, *e.g.*, injections of salvarsan or its approved substitutes, &c., will, if necessary, be admitted as in-patients.

A medical practitioner will, by appointment, be able to consult with the Medical Officer of a particular clinic respecting any case of suspected venereal disease under his care.

The Medical Officer of the clinic will, in cases where such action is desired, furnish the patient's own medical adviser with a report on the patient's treatment at the clinic, with suggestions as to continued treatment.

Further facilities for medical practitioners will be offered, when circumstances permit, such as :—

- (a) demonstrations and post-graduate courses at the Treatment Centres,
- (b) consultations with the Pathologist or the Medical Officer of the Treatment Centre, and
- (c) assistance in the taking of difficult specimens.

### (3) SUPPLY OF SALVARSAN OR ITS APPROVED SUBSTITUTES.

The County Council supplies to medical practitioners, approved under the Regulations for such purpose, salvarsan or its approved substitutes free of cost.

The following drugs have been approved :—

Kharsivan	Galyl
Arsenobillon	Neokharsivan
Novarsenobillon	Salvarsan
Diarsenol	Neodiarsenol

A medical practitioner desirous of having his name placed on the County list for the gratuitous supply of salvarsan or its approved substitutes may apply to the County Medical Officer of Health for a form on which to give the necessary particulars of his training or experience in the administration of these drugs.

### PRINTED FORMS OF INSTRUCTIONS TO MEDICAL PRACTITIONERS, PATIENTS, AND THE PUBLIC GENERALLY.

A supply of the undermentioned forms and leaflets is available, and copies will be sent on application to the

County Public Health Department, County Offices,  
Preston :—

- (a) Application by medical practitioner for pathological outfit (Form V. 1).
- (b) Application by medical practitioner for supply of approved substitutes for salvarsan (Form V. 2).
- (c) Warning to patient as to care after administration of salvarsan substitute (Form V. 3).
- (d) Particulars to be supplied by the medical practitioner with each specimen sent to the laboratory (Form V. 4).
- (e) Report of pathologist respecting specimen sent by medical practitioner (Form V. 5).
- (f) Instructions to patients suffering from syphilis (Form V. 6).
- (g) Instructions to patients suffering from gonorrhœa (Form V. 7).
- (h) Information to the public on the dangers of venereal diseases and on the facilities for treatment (Form V. 8).
- (i) Leaflet to seamen (Forms V. 14 and 15).

Any further information relative to the scheme can also be had on application to the County Medical Officer of Health.

#### TREATMENT CENTRES.—

*Work carried out during the year ended 31st December, 1919.*

The information obtained from the Institutions with which the County Council has arrangements regarding persons residing in the County area attending for treatment during the year ended 31st December, 1919, is tabulated in the following table :—



Institution	Number of County Residents attending for the first time and found to be suffering from :—				Total Number of Attendances of County Residents at Out-patient Clinic.	Aggregate Number of In-patient days.	Number of Doses of Salvarsan substitutes.
	Syphilis.	Soft Chancere	Gonorrhoea	Conditions other than Venereal.			
Ashton-under-Lyne District Infirmary ..	90	1	12	13	1156	62	642
Barrow-in-Furness North Lonsdale Hospital ..	12	..	4	6	124	24	82
Blackburn and East Lancashire Royal Infirmary ..	158	19	45	45	1950	326	722
Blackpool Victoria Hospital ..	33	3	26	9	544	102	237
*Bolton Infirmary ..	36	..	..	21	411	90	225
Bolton Public Health Department Clinic ..	132	..	97	40	1982	7	800
Bootle Borough Hospital ..	37	6	40	5	668	2	177
Burnley Victoria Hospital ..	108	26	50	21	1567	87	668
Bury Tuberculosis Dispensary Clinic ..	..	..	Established	January,	..	..	..
Liverpool Royal Infirmary ..	65	..	69	23	1233	16	255
Liverpool David Lewis Northern Hospital ..	6	..	3	1	50	..	23
Liverpool Royal Southern Hospital ..	6	..	1	..	35	..	19
Liverpool Stanley Hospital ..	3	..	1	..	38	..	13
Liverpool Skin and Cancer Hospital ..	31	..	10	..	322	126	130
Manchester Ancoats Hospital ..	47	..	37	12	618	16	262
Manchester Royal Infirmary ..	155	6	61	8	2120	..	570
Manchester and Salford Lock Hospital ..	41	10	37	27	806	1273	363
Manchester and Salford Hospital for Skin Diseases ..	..	..	..	..	..	..	..
Manchester St. Mary's Hospitals ..	127	2	14	29	3214	36	538
Oldham Royal Infirmary ..	2	..	2	4	20	..	6
Preston Royal Infirmary ..	73	2	35	11	886	133	266
Preston Royal Infirmary ..	65	8	14	35	889	..	980
Rochdale Infirmary ..	88	4	29	..	847	159	717
Salford Royal Hospital ..	67	..	79	71	2014	186	390
St. Helens Corporation Hospital ..	15	2	8	..	181	84	105
Warrington Infirmary ..	18	..	13	11	148	31	48
Wigan Royal Albert Edward Infirmary ..	95	5	42	16	909	78	560
Total ..	1510	94	729	408	22732	2838	8798

\* Treatment Centre discontinued 31st August, 1919.

## PATHOLOGICAL EXAMINATIONS.

Outfits to the number of 766 have been supplied to medical practitioners for the purpose of sending specimens for pathological examination.

	No. of outfits issued to medical practitioners.		
	Wassermann test.	Detection of Spirochæta pallida.	Detection of Gonococci.
Year ended 31st December, 1919.	405	43	62
Total from commencement of County Scheme to 31st Dec., 1919	600	53	113

## SUPPLY OF SALVARSAN OR ITS SUBSTITUTES.

The following statement shows the number of doses of salvarsan or its approved substitutes supplied to medical practitioners :—

	No. of medical practitioners "approved" for supply of Salvarsan Substitutes.	Salvarsan or its approved Substitutes supplied to medical practitioners.								TOTAL.
		Kharsivan.	Arsenobillon.	Novarsenobillon.	Diarsenol.	Galyl.	Neokharsivan.	Salvarsan.	Neodiarsenol.	
Year ended 31st Dec., 1919	38	50	-	627	-	152	36	16	-	881
Total from commencement of County Scheme to Dec. 31st, 1919	65	52	10	689	-	319	44	24	12	1150



PROPAGANDA WORK.—During the year a considerable amount of educational work has been carried out through the central office and by the two organising lecturers appointed by the County Council, viz. :—

Miss M. M. Tipper, 6, Hartington Road, Preston ;	} or Public Health Department, County Offices, Preston.
Mr. R. Whaites, 96, Tweedale Street, Rochdale ;	

To the end of the year propaganda work had been initiated in 111 of the 122 County districts. In many areas local Propaganda Committees have been established, and in some districts considerable vigour has been shown in the attempt to arouse public interest, and to bring about a realisation of the dangers of venereal diseases and the importance of early and adequate treatment. The interest and sympathy of many employers of labour have also been obtained, thus permitting direct communication with a large body of employees.

The following tabular statement shows the approximate attendances at lectures and workshop meetings up to June 30th, 1920, a total of 49,965 :—

APPROXIMATE AUDIENCES REACHED BY  
PROPAGANDA WORK.

Lectures and Addresses by Organising Lecturers, &c.			Medical Lectures.			Lectures to Teachers.	Lectures to Mothers.	Lantern Lectures.	Film Lectures.	Works Meetings.	
Men.	Women	Mixed.	Men.	Women	Mixed.					Men.	Women.
1516	2265	9620	3927	5160	500	460	2415	5470	2300	9010	7322

DISTRIBUTION OF LITERATURE.—At every lecture and works meeting a supply of suitable literature, prepared by the National Council for Combating Venereal Diseases, has been distributed.





TABLE (F) showing HOSPITAL ACCOMMODATION and DISINFECTING APPARATUS provided in or for each of the County Districts; also NUMBER OF CASES OF INFECTIOUS DISEASES NOTIFIED, REMOVED TO HOSPITAL, &c.

(a) (c) (d) Totals supplied by local Medical Officers of Health; (b) by Registrar-General.

District.	Nature of Hospital accommodation.		Infectious Diseases.																	Disinfection Apparatus and where situated.			
	For ordinary infectious diseases.	For Small-pox.	Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital (d) Deaths in hospital.																				
			Small-pox.	Diphtheria and Membranous Croup.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Relapsing Fever.	Continued Fever.	Puerperal Fever.	Cerebro-Spinal Meningitis.	Poliomyelitis.	Ophthalmia Neonatorum.	Malaria.	Trench Fever.	Dysentery.	Encephalitis Lethargica.	Acute Primary Pneumonia.	Acute Influenzal Pneumonia.		Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Measles and German Measles.
Abram .. ..	8 beds .. ..	Iron building—4 beds*	(a) .. 3 .. 2 .. 14 .. .. .. .. .. .. .. 1 .. 1 .. .. .. .. 11 .. 5 .. 3 .. 54 .. .. .. 94	(b) .. 13 .. 6 .. 2 .. .. .. .. 22	(c) .. 1 .. .. .. .. .. .. .. 13	(d) .. 1 .. .. .. .. .. .. .. 1	Steam—Hospital .. ..																
Acerington (B.) ..	Bury Joint Hospital by agreement	24 beds .. ..	(a) .. 26 .. 8 .. 18 .. 2 .. .. .. .. .. .. .. 3 .. .. 1 .. 19 .. 4 .. .. .. .. 75 .. 52 .. 19 .. 188 .. .. .. 415	(b) .. 11 .. 55 .. 29 .. 9 .. 5 .. 4 .. 1 .. .. 116	(c) .. 2	(d) ..	Steam—District .. ..																
Adlington .. ..	Joint at Heath Charnock, 36 beds	5 beds at Finnington (Blackburn)	(a) .. 1 .. 6 .. 12 .. .. .. .. .. .. .. .. .. .. .. .. .. 1 .. 3 .. .. .. .. 11 .. 6 .. 5 .. .. .. .. 45	(b) .. 10	(c) .. 1 .. .. 12 .. 3 .. 3 .. 2 .. .. .. .. 13	(d) ..	None. (Formalin Sprayer)																
Chorley (B.) .. ..			(a) .. 53 .. 11 .. 29 .. 5 .. .. .. .. .. .. .. 1 .. .. 1 .. 1 .. 28 .. .. 2 .. 1 .. 36 .. 33 .. 13 .. 61 .. .. .. 275	(b) .. 12 .. 1 .. .. 2 .. 36 .. 16 .. 3 .. 1 .. .. 4 .. 75	(c) .. 21 .. .. 26 .. 3 .. 59	(d) .. 4 .. 4	Steam—Town's Yard																
Leyland .. .. ..			(a) .. 8 .. 3 .. 16 .. 1 .. 8 .. 4 .. 6 .. .. .. 46	(b) .. 1 .. 24	(c) .. .. .. .. 2 .. 2	(d) .. 1	No proper appliances																
Chorley (R.) .. ..			(a) .. 14 .. 6 .. 44 .. 1 .. .. .. .. .. .. .. 1 .. .. 2 .. .. 8 .. .. 1 .. .. 21 .. 25 .. 12 .. 11 .. .. .. 146	(b) .. 1 .. .. 1 .. 23 .. 16 .. 6 .. .. .. 3 .. 51	(c) .. 7 .. .. 36 .. 43	(d) .. .. .. .. 1 .. 1	No proper appliances, but can send to Chorley (B.) .. ..																
Ashton-in-Makerfield	40 beds (Long Lane)	8 beds (Edge Green)*	(a) .. 63 .. 8 .. 225 .. 4 .. .. .. .. .. .. .. 2 .. .. .. 4 .. 8 .. .. 1 .. .. 62 .. 35 .. 14 .. 46 .. .. .. 472	(b) .. 3 .. .. 2 .. 1 .. 31 .. 21 .. 5 .. .. 1 .. 11 .. 77	(c) .. 60 .. .. 173 .. 3 .. 1 .. .. .. .. .. 237	(d) .. 3 .. .. 2 .. 5	Steam—Hospital .. ..																
Aspull .. .. ..	At Wigan Borough hospitals*		(a) .. 14 .. 17 .. 70 .. .. .. .. .. .. .. .. .. .. .. .. .. 1 .. 2 .. .. .. .. 31 .. 5 .. 1 .. 7 .. .. .. 148	(b) .. .. 1 .. 2 .. 25 .. 7 .. 1 .. .. .. 6 .. 42	(c) .. .. .. 3 .. 3	(d) ..	Steam—Wigan Sanatorium .. ..																

\* Combined under the Wigan and District Joint Hospital Order for the purpose of providing a small-pox hospital. † Inward transfers. ‡ Cases not notified.  
 NOTE.—Tuberculosis cases removed to Hospital or Sanatoria not shown under (c) and (d). Acute primary pneumonia and acute influenzal pneumonia notifiable; deaths from all forms of pneumonia shown under (b).





District.	Nature of Hospital accommodation.		Infectious Diseases.																				Disinfection.					
			<i>Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.</i>																				Apparatus and where situated.	No. of Houses or Rooms disinfected.				
	For ordinary infectious diseases.	For Small-pox.	Small-pox.	Diphtheria and Membranous Croup.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Relapsing Fever.	Continued Fever.	Puerperal Fever.	Cerebro-Spinal Meningitis.	Polio-myelitis.	Ophthalmia Neonatorum.	Malaria.	Trench Fever.	Dysentery.	Encephalitis. Lethargica.	Acute Primary Pneumonia.	Acute Influenzal Pneumonia.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Measles and German Measles.			Whooping Cough.	Diarrhoea, &c. (under 2 years).	Chicken-pox.	Total.
Ashton-under-Lyne (B.)	20 beds .. ..	Joint at Hartshhead—12 beds	(a) .. 18	19	90	3	..	..	1	2	..	8	27	..	3	1	94	67	15	92	..	..	..	..	440	Steam—Town's Yard	229	
			(b) .. 5	1	1	1	..	..	..	1	1	..	..	..	..	..	..	57	42	15	1	..	10	..	..	155		
			(c) .. 5	..	44	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	50		
			(d) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Audenshaw ..	2 beds, Hyde Borough hospital	Joint at Hartshhead—12 beds	(a) .. 3	2	15	..	..	..	..	..	1	4	..	..	..	..	16	10	6	8	..	..	..	..	65	Steam—Ashton-under-Lyne (B.)	18	
			(b) .. ..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	8	4	2	..	..	1	..	..	16		
			(c) .. ..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1		
			(d) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Hurst .. ..	Nil .. ..	Joint at Hartshhead—12 beds	(a) .. ..	6	34	1	..	..	..	..	2	4	..	2	..	19	9	2	8	..	..	..	..	..	87	Steam—Hospital ..	87	
			(b) .. †1	†1	1	..	..	..	..	..	..	..	..	..	..	7	7	1	1	..	..	..	..	..	19			
			(c) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
			(d) .. 1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2		
Limhurst (R.) ..	Nil .. ..	Joint at Hartshhead—12 beds	(a) .. 2	5	11	..	..	..	..	..	1	6	..	1	..	44	16	..	85	..	..	..	..	..	171	Steam—Ashton-under-Lyne (B.)	16	
			(b) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	16	5	4	2	..	3	..	..	..	39			
			(c) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
			(d) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Atherton ..	Joint at Astley for all purposes :—	64 beds and 38 cots.	(a) .. 82	22	39	1	..	..	1	..	7	23	..	2	..	33	17	15	191	..	..	..	..	..	433	Steam—Gas Works	148	
				(b) .. 8	..	..	..	..	..	1	..	..	..	..	..	..	17	11	6	7	4	5	..	..	59			
				(c) .. 43	..	23	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	67		
				(d) .. 2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2		
Golborne ..	Joint at Astley for all purposes :—	64 beds and 38 cots.	(a) .. 1	4	12	..	..	..	..	..	1	12	..	..	..	25	12	5	2	..	..	..	..	..	74	Steam—Hospital ..	20	
				(b) .. ..	..	..	..	..	..	..	..	†1	..	..	..	..	6	2	1	1	..	1	..	..	12			
				(c) .. ..	..	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9		
				(d) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Leigh (B.) ..	Joint at Astley for all purposes :—	64 beds and 38 cots.	(a) .. 101	36	26	6	..	..	2	2	..	34	39	..	3	1	71	65	52	1002	..	..	..	..	1440	Steam—Destructor Works	243	
				(b) .. 10	1	..	1	..	..	2	1	..	..	..	..	..	50	50	8	24	2	27	..	..	176			
				(c) .. 81	..	9	3	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	94		
				(d) .. 6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	..	..	..	..	8		
Tyldesley-with-Shakeley	Joint at Astley for all purposes :—	64 beds and 38 cots.	(a) .. 12	12	39	7	..	..	1	..	7	20	..	1	..	28	25	16	105	..	..	..	..	..	273	Steam—Sanatorium	65	
				(b) .. 3	..	..	1	..	..	1	..	..	..	..	..	..	41	17	4	2	..	7	..	..	76			
				(c) .. 8	..	14	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	28		
				(d) .. 2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3		
Leigh (R.) ..	Joint at Astley for all purposes :—	64 beds and 38 cots.	(a) .. 15	6	1	..	..	..	..	..	1	3	..	..	..	22	9	10	84	..	..	..	..	..	151	Steam—Hospital ..	110	
				(b) .. 2	..	..	..	..	..	..	..	..	..	..	..	..	19	7	1	..	..	2	..	..	32			
				(c) .. 13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13		
				(d) .. 1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1		
Bacup (B.) ..	Arrangement with Bury Joint Hospital Board	Joint at Todmorden—32 beds	(a) .. 5	25	6	..	..	..	..	..	6	2	..	..	..	40	21	12	44	..	..	..	..	45	Steam—Town's Yard	91		
			(b) .. 1	1	..	..	..	..	..	..	..	..	..	..	..	12	9	7	2	..	1	..	..	34				
			(c) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	4				
			(d) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			

THE UNIVERSITY OF CHICAGO  
 DEPARTMENT OF CHEMISTRY  
 LABORATORY OF PHYSICAL CHEMISTRY  
 RECORD BOOK

DATE	TIME	TEMPERATURE	WEIGHT	VOLUME	REMARKS
1917	11:00	25.0	1.00	10.0	Initial weighing
1917	11:15	25.0	1.00	10.0	Initial weighing
1917	11:30	25.0	1.00	10.0	Initial weighing
1917	11:45	25.0	1.00	10.0	Initial weighing
1917	12:00	25.0	1.00	10.0	Initial weighing
1917	12:15	25.0	1.00	10.0	Initial weighing
1917	12:30	25.0	1.00	10.0	Initial weighing
1917	12:45	25.0	1.00	10.0	Initial weighing
1917	13:00	25.0	1.00	10.0	Initial weighing
1917	13:15	25.0	1.00	10.0	Initial weighing
1917	13:30	25.0	1.00	10.0	Initial weighing
1917	13:45	25.0	1.00	10.0	Initial weighing
1917	14:00	25.0	1.00	10.0	Initial weighing
1917	14:15	25.0	1.00	10.0	Initial weighing
1917	14:30	25.0	1.00	10.0	Initial weighing
1917	14:45	25.0	1.00	10.0	Initial weighing
1917	15:00	25.0	1.00	10.0	Initial weighing
1917	15:15	25.0	1.00	10.0	Initial weighing
1917	15:30	25.0	1.00	10.0	Initial weighing
1917	15:45	25.0	1.00	10.0	Initial weighing
1917	16:00	25.0	1.00	10.0	Initial weighing
1917	16:15	25.0	1.00	10.0	Initial weighing
1917	16:30	25.0	1.00	10.0	Initial weighing
1917	16:45	25.0	1.00	10.0	Initial weighing
1917	17:00	25.0	1.00	10.0	Initial weighing
1917	17:15	25.0	1.00	10.0	Initial weighing
1917	17:30	25.0	1.00	10.0	Initial weighing
1917	17:45	25.0	1.00	10.0	Initial weighing
1917	18:00	25.0	1.00	10.0	Initial weighing
1917	18:15	25.0	1.00	10.0	Initial weighing
1917	18:30	25.0	1.00	10.0	Initial weighing
1917	18:45	25.0	1.00	10.0	Initial weighing
1917	19:00	25.0	1.00	10.0	Initial weighing
1917	19:15	25.0	1.00	10.0	Initial weighing
1917	19:30	25.0	1.00	10.0	Initial weighing
1917	19:45	25.0	1.00	10.0	Initial weighing
1917	20:00	25.0	1.00	10.0	Initial weighing
1917	20:15	25.0	1.00	10.0	Initial weighing
1917	20:30	25.0	1.00	10.0	Initial weighing
1917	20:45	25.0	1.00	10.0	Initial weighing
1917	21:00	25.0	1.00	10.0	Initial weighing
1917	21:15	25.0	1.00	10.0	Initial weighing
1917	21:30	25.0	1.00	10.0	Initial weighing
1917	21:45	25.0	1.00	10.0	Initial weighing
1917	22:00	25.0	1.00	10.0	Initial weighing
1917	22:15	25.0	1.00	10.0	Initial weighing
1917	22:30	25.0	1.00	10.0	Initial weighing
1917	22:45	25.0	1.00	10.0	Initial weighing
1917	23:00	25.0	1.00	10.0	Initial weighing
1917	23:15	25.0	1.00	10.0	Initial weighing
1917	23:30	25.0	1.00	10.0	Initial weighing
1917	23:45	25.0	1.00	10.0	Initial weighing
1917	24:00	25.0	1.00	10.0	Initial weighing





Journal of the Board of Directors of the [Company Name]

Date	Item	Amount	Balance
Jan 1	Balance forward		
Jan 15	Received from [Name]		
Jan 20	Paid for [Name]		
Jan 25	Received from [Name]		
Jan 30	Paid for [Name]		
Feb 5	Received from [Name]		
Feb 10	Paid for [Name]		
Feb 15	Received from [Name]		
Feb 20	Paid for [Name]		
Feb 25	Received from [Name]		
Feb 30	Paid for [Name]		
Mar 5	Received from [Name]		
Mar 10	Paid for [Name]		
Mar 15	Received from [Name]		
Mar 20	Paid for [Name]		
Mar 25	Received from [Name]		
Mar 30	Paid for [Name]		
Apr 5	Received from [Name]		
Apr 10	Paid for [Name]		
Apr 15	Received from [Name]		
Apr 20	Paid for [Name]		
Apr 25	Received from [Name]		
Apr 30	Paid for [Name]		
May 5	Received from [Name]		
May 10	Paid for [Name]		
May 15	Received from [Name]		
May 20	Paid for [Name]		
May 25	Received from [Name]		
May 30	Paid for [Name]		
Jun 5	Received from [Name]		
Jun 10	Paid for [Name]		
Jun 15	Received from [Name]		
Jun 20	Paid for [Name]		
Jun 25	Received from [Name]		
Jun 30	Paid for [Name]		
Jul 5	Received from [Name]		
Jul 10	Paid for [Name]		
Jul 15	Received from [Name]		
Jul 20	Paid for [Name]		
Jul 25	Received from [Name]		
Jul 30	Paid for [Name]		
Aug 5	Received from [Name]		
Aug 10	Paid for [Name]		
Aug 15	Received from [Name]		
Aug 20	Paid for [Name]		
Aug 25	Received from [Name]		
Aug 30	Paid for [Name]		
Sep 5	Received from [Name]		
Sep 10	Paid for [Name]		
Sep 15	Received from [Name]		
Sep 20	Paid for [Name]		
Sep 25	Received from [Name]		
Sep 30	Paid for [Name]		
Oct 5	Received from [Name]		
Oct 10	Paid for [Name]		
Oct 15	Received from [Name]		
Oct 20	Paid for [Name]		
Oct 25	Received from [Name]		
Oct 30	Paid for [Name]		
Nov 5	Received from [Name]		
Nov 10	Paid for [Name]		
Nov 15	Received from [Name]		
Nov 20	Paid for [Name]		
Nov 25	Received from [Name]		
Nov 30	Paid for [Name]		
Dec 5	Received from [Name]		
Dec 10	Paid for [Name]		
Dec 15	Received from [Name]		
Dec 20	Paid for [Name]		
Dec 25	Received from [Name]		
Dec 30	Paid for [Name]		
Total			



District.	Nature of Hospital accommodation.		Infectious Diseases.																	Disinfection.									
	For ordinary infectious diseases.	For Small-pox.	Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																	Apparatus and where situated.	No. of Houses or Rooms disinfected.								
			Small-pox.	Diphtheria and Membranous Group.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Relapsing Fever.	Continued Fever.	Fuerepal Fever.	Cerebro-Spinal Meningitis.	Poliomyelitis.	Ophthalmia Neonatorum.	Malaria.	Trench Fever.	Dysentery.	Encephalitis Lethargica.	Acute Primary Pneumonia	Acute Influenzal Pneumonia			Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Measles and German Measles.	Whooping Cough.	Diarrhoea, &c. (under 2 years).	Chicken-pox.	Total.	
Fulwood ..	}	}	(a) ..	6	1	1	..	..	..	1	..	..	1	..	..	..	16	6	..	13	..	..	..	..	45	Steam—Hospital ..	50		
			(b) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	4	1	..	..	..	..	..	11			
			(c) ..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4		
			(d) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Longridge ..	} Joint at Fulwood 45 beds	} Joint at Elswick (With Fig. 1, &c. See previous page)	(a) ..	8	3	8	..	..	..	..	..	..	..	..	..	..	1	2	..	1	..	..	..	..	23	Steam—Hospital ..	20		
			(b) ..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	9	7	1	..	..	..	..	..	18			
			(c) ..	8	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16		
			(d) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Preston (R.) ..	}	}	(a) ..	11	5	45	4	..	..	2	1	..	5	..	..	24	8	4	21	..	..	..	..	130	Steam—Hospital ..	156			
			(b) ..	3	..	..	..	..	..	..	..	..	..	..	..	..	7	12	3	..	..	1	..	..	28				
			(c) ..	6	..	39	3	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	49			
			(d) ..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1			
Barrowford ..	} At Nelson Boro. hospital	} At Nelson Boro. hospital	(a) ..	1	5	7	..	..	..	..	..	1	..	..	..	5	1	..	7	..	..	..	..	27	Steam—Nelson (B.) ..	8			
			(b) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	..	..	3	..	..	..	8				
			(c) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
			(d) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			
Billinge ..	} Nil .. .. .	} Cottage—4 beds*	(a) ..	3	1	4	..	..	1	..	1	3	..	1	1	7	3	..	..	..	..	..	..	25	No proper apparatus	12			
			(b) ..	1	..	..	..	..	..	1	..	..	..	..	..	1	5	2	..	1	..	..	..	..	11				
			(c) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
			(d) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
Blackrod ..	}	} Nil* .. .. .	(a) ..	3	4	2	1	..	1	..	1	..	1	..	9	3	4	5	..	..	..	..	34	Steam—Hospital ..	33				
			(b) ..	1	..	..	..	..	..	..	..	..	..	..	..	5	6	1	..	1	..	..	..	14					
			(c) ..	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4				
			(d) ..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1				
Horwich ..	} Joint at Fall Birch, Horwich, 55 beds	} Temporary hospital —5 beds*	(a) ..	11	5	3	..	..	..	..	..	13	..	..	68	16	14	20	..	..	..	..	150	Steam—Hospital ..	30				
			(b) ..	3	..	..	1	..	..	..	..	..	..	..	..	12	14	..	..	2	..	..	..	33					
			(c) ..	8	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9				
			(d) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
Westhoughton ..	}	} Temporary hospital —12 beds*	(a) ..	14	2	25	5	..	3	1	1	3	7	..	18	7	16	..	..	..	..	102	Steam—Hospital ..	94					
			(b) ..	6	..	..	..	..	..	2	1	..	..	..	..	16	6	1	..	..	..	..	..	32					
			(c) ..	5	..	20	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	30				
			(d) ..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4				
Brierfield ..	}	}	(a) ..	1	4	1	..	..	..	1	..	10	..	..	30	11	6	10	..	..	..	..	74	Steam—Burnley C.B.	25				
			(b) ..	..	..	..	..	..	..	..	..	1	..	..	..	14	9	..	..	1	..	..	..	25					
			(c) ..	1	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	4				
			(d) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..				
Padiham ..	} Joint with Burnley (C.B.) for all purposes (Kibble Bank) (Crown Point)	}	(a) ..	11	7	6	1	..	1	1	1	..	1	15	..	22	13	6	12	..	..	..	97	Steam—Burnley C.B.	78				
			(b) ..	3	..	..	..	..	..	..	..	..	..	..	..	5	11	4	..	..	..	..	..	23					
			(c) ..	7	2	4	..	..	..	..	1	..	..	..	..	4	..	..	2	..	..	..	..	..	20				
			(d) ..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	2				
Burnley (R.) ..	}	}	(a) ..	36	4	22	2	..	2	1	1	3	3	..	32	16	11	159	..	..	..	..	292	Steam—Burnley C.B.	51				
			(b) ..	3	..	..	..	..	..	2	..	..	..	..	..	18	9	1	..	1	2	..	..	36					
			(c) ..	12	..	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	21				
			(d) ..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1				







Molecular Weight Determination of Polystyrene by Osmotic Pressure

Run	Concentration (g/dl)	Volume (ml)	Temperature (°C)	Pressure (mm Hg)	π (atm)	M <sub>w</sub> (g/mol)
1	0.10	10	25	1.5	0.020	100,000
2	0.20	10	25	3.0	0.040	100,000
3	0.30	10	25	4.5	0.060	100,000
4	0.40	10	25	6.0	0.080	100,000
5	0.50	10	25	7.5	0.100	100,000
6	0.60	10	25	9.0	0.120	100,000
7	0.70	10	25	10.5	0.140	100,000
8	0.80	10	25	12.0	0.160	100,000
9	0.90	10	25	13.5	0.180	100,000
10	1.00	10	25	15.0	0.200	100,000
11	0.10	20	25	1.5	0.020	100,000
12	0.20	20	25	3.0	0.040	100,000
13	0.30	20	25	4.5	0.060	100,000
14	0.40	20	25	6.0	0.080	100,000
15	0.50	20	25	7.5	0.100	100,000
16	0.60	20	25	9.0	0.120	100,000
17	0.70	20	25	10.5	0.140	100,000
18	0.80	20	25	12.0	0.160	100,000
19	0.90	20	25	13.5	0.180	100,000
20	1.00	20	25	15.0	0.200	100,000



District.	Nature of Hospital accommodation.		Infectious Diseases.																		Disinfection.										
	For ordinary infectious diseases.	For Small-pox.	Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																		Apparatus and where situated.	No. of Houses or Rooms disinfected.									
			Small-pox.	Diphtheria and Membranous Croup.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Relapsing Fever.	Continued Fever.	Puerperal Fever.	Cerebro-Spinal Meningitis.	Poliomyelitis.	Ophthalmia Neonatorum.	Malaria.	Trench Fever.	Dysentery.	Encephalitis Lethargica.	Acute Primary Inoculation.	Acute Influenza Pneumonia.	Pulmonary Tuberculosis.			Other forms of Tuberculosis.	Measles and German Measles.	Whooping Cough.	Diarrhoea, &c. (under 2 years).	Chicken-pox.	Total.			
Daiton-in-Furness	}	}	(a)	6	4	37	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	100	No apparatus	100		
Ulverston			(b)	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	37			
			(c)	4	..	32	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	37		
			(d)	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2		
Ulverston (R.)	}	}	(a)	7	9	27	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	223	No apparatus	46		
			(b)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	29			
			(c)	5	..	11	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18		
			(d)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Darwen (B.)	20 beds for scarlet fever; 8 for enteric fever	Converted farmhouse—2 beds	(a)	14	6	17	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	179	Steam—Hospital	80		
			(b)	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	81			
			(c)	..	..	..	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9		
			(d)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Denton	4 beds, Hyde Boro hospital	2 beds, Hyde	(a)	16	8	28	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	187	No apparatus	68		
			(b)	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	41			
			(c)	2	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7		
			(d)	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2		
Droylsden	5 beds, Hyde Boro hospital	1 bed, Hyde	(a)	2	18	24	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	269	Steam—Destructor Works	48		
			(b)	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	37			
			(c)	1	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8		
			(d)	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1		
Eccles (B.)	20 beds, Salford Boro. hospital	6 beds, Salford	(a)	4	30	17	219	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1306	Steam—Sewage Works	1378		
			(b)	2	1	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	109			
			(c)	4	22	2	38	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	69		
			(d)	1	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5		
Failsforth	At Oldham Borough hospital	Chadderton, &c., Joint Board—2 beds	(a)	13	11	44	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	471	Steam—Oldham C.B.	53 (rooms)		
			(b)	3	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	46			
			(c)	5	..	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13		
			(d)	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4		
Farnworth	30 beds	}	(a)	23	22	45	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	623	Steam—Hospital	101 (rooms)		
			(b)	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	103			
			(c)	6	..	37	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	43		
			(d)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Little Lever	At Farnworth hospital	}	(a)	9	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	121	Steam—Hospital	33 (schools)		
			(b)	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15			
			(c)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
			(d)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		





District.	Nature of Hospital accommodation.		Infectious Diseases.																				Disinfection.						
			Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital (d) Deaths in hospital.																										
			Small-pox.	Diphtheria and Membranous Croup.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Relapsing Fever.	Continued Fever.	Puerperal Fever.	Cerebro-Spinal Meningitis.	Poliomyelitis.	Ophthalmia Neonatorum.	Malaria.	Trench Fever.	Dysentery.	Encephalitis Lethargica.	Acute Primary Pneumonia.	Acute Influenzal Pneumonia.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Measles and German Measles.			Whooping Cough.	Diarrhoea, &c. (under 2 years).	Chicken-pox.	Total.	Apparatus and where situated.
Formby ..	At Bootle Borough hospitals ..		(a) .. 15	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	34	Steam—Bootle C.B.	27
			(b) .. 4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18		
			(c) .. 13	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14		
			(d) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Grange-over-Sands	At Kendal Borough hospital	At Barrow Borough hospital	(a) .. ..	..	3	..	..	..	..	..	..	..	1	..	..	..	..	3	1	..	5	..	..	..	..	..	13	No proper apparatus	6
			(b) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1		
			(c) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
			(d) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Great Crosby ..	At Liverpool Borough hospitals		(a) .. 15	5	37	..	1	..	2	..	3	5	..	..	..	13	25	8	141	..	..	..	..	..	..	..	255	Dry Heat—Council's Yard	315
			(b) .. 10	..	17	..	..	..	..	..	..	..	..	..	..	17	9	..	..	..	..	..	..	..	..	..	34		
			(c) .. 10	..	17	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	28		
			(d) .. 2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3		
Great Harwood ..	Nil ..	Nil ..	(a) .. 2	6	6	1	..	..	1	..	1	16	..	..	..	33	14	3	..	..	..	..	..	..	..	..	83	Steam—Accrington (B.)	35
			(b) .. 1	..	..	..	..	..	12	..	..	..	..	..	..	16	7	4	..	..	..	..	..	..	..	..	32		
			(c) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
			(d) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Haslingden (B.)	Agreement with Bury and District Joint Hospital Board		(a) .. 55	14	14	3	..	..	3	..	6	..	..	..	..	18	23	14	7	..	..	..	..	..	..	..	157	Steam—Destructor Works	76
			(b) .. 5	..	..	1	..	..	..	..	..	..	..	..	..	17	9	1	..	1	1	..	..	..	..	..	35		
			(c) .. 3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3		
			(d) .. 1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1		
Haydock ..	10 beds at St. Helens Borough hospital	Two wooden pavilions (3 beds)	(a) .. 8	8	42	..	..	2	..	..	11	..	..	..	..	46	14	3	44	..	..	..	..	..	..	..	178	Steam—St. Helens C.B.	62
			(b) .. 2	..	14	..	..	..	..	..	..	..	..	..	..	12	15	1	..	1	6	..	..	..	..	..	36		
			(c) .. 2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17		
			(d) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Heysham ..	4 beds ..	4 beds ..	(a) .. 3	13	..	..	..	..	..	..	1	..	..	..	..	1	6	5	1	18	..	..	..	..	..	..	48	Steam—Lancaster (B.)	48
			(b) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	3	4	1	..	..	..	..	..	..	..	..	8		
			(c) .. ..	..	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11		
			(d) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Heywood (B.) ..	At Rochdale hospital (Marland)	Bury and District Joint Board at Birtle	(a) .. 6	22	12	1	..	2	..	..	5	11	..	..	..	24	42	12	292	..	..	..	..	..	..	..	431	Steam—Hospital	25
			(b) .. 1	1	..	..	..	..	..	..	..	..	..	..	..	19	18	5	..	..	..	..	..	..	..	..	52		
			(c) .. 4	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7		
			(d) .. 1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2		
Hindley ..	16 beds; also at Horwich and Abram when beds available	Arrangement with Leigh Joint Hospital Board	(a) .. 33	16	112	4	..	1	1	1	26	9	..	1	..	75	30	13	19	..	..	..	..	..	..	..	98	Steam—Town's Yard	239
			(b) .. 7	2	1	4	..	..	1	1	..	..	..	..	..	29	12	6	..	..	..	..	..	..	..	..	75		
			(c) .. 12	..	66	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	81		
			(d) .. 2	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5		
Huyton-with-Roby	1 bed at Whiston (more if vacant)	1 bed at Whiston (more if vacant)	(a) .. 9	..	8	..	..	..	..	..	2	..	..	..	..	36	1	..	4	..	..	..	..	..	..	..	60	Steam—Whiston Sanatorium	12
			(b) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	4	4	3	..	..	..	..	..	..	..	..	11		
			(c) .. 8	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16		
			(d) .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	

§ Death not classified as poliomyelitis by Registrar-General.











District.	Nature of Hospital accommodation.		Infectious Diseases.																				Disinfection.							
			Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																				Apparatus and where situated.	No. of Houses or Rooms disinfected.						
			Small-pox.	Diphtheria and Membranous Croup.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Relapsing Fever.	Continued Fever.	Fuerepal Fever.	Cerebro-Spinal Meningitis.	Pollomyelitis.	Ophthalmia Neonatorum.	Malaria.	Trench Fever.	Dysentery.	Encephalitis. Lethargica.	Acute Primary Pneumonia.	Acute Infectious Pneumonia.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Measles and German Measles.			Whooping Cough.	Diarrhoea, &c. (under 2 years).	Chicken-pox.	Total.		
Little Crosby	At Liverpool Borough hospitals		(a) .. 2 .. 6 .. .. .	(b) .. 2 .. 3 .. .. .	(c) .. 2 .. 3 .. .. .	(d) .. 2 .. 3 .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	Dry-heat—Great Crosby	6	
Little Hulton	At Bolton Boro. hospital and at Leigh joint hospital	At Leigh joint hospital	(a) .. 6 2 48 1 .. .. .	(b) .. 1 .. 1 .. .. .	(c) .. 1 .. 25 .. .. .	(d) .. 1 .. 25 .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	147	Steam—Hospital	74	
Middleton (B.)	At Rochdale Boro. hospital	At Chadderton &c., joint hospital	(a) .. 35 9 20 1 .. .. .	(b) .. 2 1 .. .. .	(c) .. 19 .. 7 .. .. .	(d) .. 1 .. 7 .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	486	Steam—Centre of Town	48	
Morocambe (B.)	25 beds and 2 cots	10 beds and 1 cot	(a) .. 1 7 15 .. .. .	(b) .. .. .. 9 .. .. .	(c) .. .. .. 9 .. .. .	(d) .. .. .. 9 .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	230	Steam—near Electricity Works	47 (and 5 schools)	
Mossley (B.)	Nil .. .. .	8 beds, May Hills..	(a) .. 11 5 3 .. .. .	(b) .. 1 1 .. .. .	(c) .. .. .. 11 1 .. .. .	(d) .. .. .. 11 1 .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	352	Steam—Corporation Yard	35
Nelson (B.)	8 beds (Catlow) ..	32 beds (Catlow) ..	(a) .. 15 22 65 3 .. .. .	(b) .. 4 .. .. 1 .. .. .	(c) .. .. .. 8 .. .. .	(d) .. .. .. 8 .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	446	Steam—Destructor Works	91 (rooms)
Newton-in-Makerfield	26 beds .. .. .	At Liverpool Boro. hospital	(a) .. 17 17 44 1 .. .. .	(b) .. .. 2 .. .. .	(c) .. 9 1 41 1 .. .. .	(d) .. .. 2 .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	269	Steam—Hospital	118
Norden	Nil .. .. .	Converted farmhouse—4 beds	(a) .. .. .. 7 .. .. .	(b) .. .. .. 1 .. .. .	(c) .. .. .. 1 .. .. .	(d) .. .. .. 1 .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	33	No proper apparatus	6
Orrell	Nil .. .. .	Nil*	(a) .. 1 2 13 .. .. .	(b) .. .. 1 .. .. .	(c) .. .. 1 .. .. .	(d) .. .. 1 .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	62	Steam—Billinge Workhouse	22
Oswaldtwistle	Nil .. .. .	6 beds .. .. .	(a) .. 10 9 4 4 .. .. .	(b) .. 1 .. 1 .. .. .	(c) .. 1 .. .. .. .	(d) .. 1 .. .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	135	Steam—Gas Works	21





District.	Nature of Hospital accommodation.		Infectious Diseases.																	Disinfection.									
			Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																										
	For ordinary infectious diseases.	For Small-pox.	Small-pox.	Diphtheria and Membranous Group.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Relapsing Fever.	Continued Fever.	Puerperal Fever.	Cerebro-Spinal Meningitis.	Poliomyelitis.	Ophthalmia Neonatorum.	Malaria.	Trench Fever.	Dysentery.	Encephalitis Lethargica.	Acute Primary Pneumonia.	Acute Infectious Pneumonia.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Measles and German Measles.	Whooping Cough.	Diarrhoea, &c. (under 2 years).	Chicken-pox.	Total.	Apparatus and where situated.	No. of Houses or Rooms disinfected.	
Prescot ..	At Whiston Sanatorium		(a) .. 26	2	5	2								1				17	15	9	4	112				165	Steam—Whiston Sanatorium	43	
			(b) .. 5															17	9							37			
			(c) .. 23	3	12																						28		
			(d) .. 4																								4		
Prestwich ..	At Salford Borough hospitals		(a) .. 76	3	37				1			3	2					12	13	7	132					286	Steam—Salford C.B.	106	
			(b) .. 8	1														16	21	3						49			
			(c) .. 56		22				1																		79		
			(d) .. 12																								2		
Radcliffe ..	At hospitals of the Bury and District Joint Hospital Board :—		(a) .. 39	17	123	4			1			4	26					17	35	18	675					959	Steam—Hospital	213	
			(b) .. 32	2	6				1										19	22	9	6				74			
			(c) .. 32	2	87	3																					124		
			(d) .. 12	1	4																						7		
Ramsbottom ..	At hospitals of the Bury and District Joint Hospital Board :—		(a) .. 18	6	56	3					3	4						64	15	5	40					214	Steam—Destructor Works	79	
			(b) .. 12		1	1													17	11	5					39			
			(c) .. 16		44	3																					63		
			(d) .. 12		1	1																					4		
Tottington ..	At hospitals of the Bury and District Joint Hospital Board :—	90 beds ..	(a) .. 2	9	5	2							1		1			18	9	2	10					59	Steam—Hospital	13	
			40 beds ..	(b) .. 2		2				1									9	8	2	1	4				27		
				(c) .. 4		4	1																				5		
				(d) .. 1		2																					2		
Whitefield ..	At hospitals of the Bury and District Joint Hospital Board :—		(a) .. 7	3	8						3	7						11	5	2	85					131	Steam—Florence Nightingale Hospital, Bury	24	
			(b) .. 4		2														10	6	2					18			
			(c) .. 4		2																						6		
			(d) .. 1																										
Bury (R.) ..	At hospitals of the Bury and District Joint Hospital Board :—		(a) .. 12	2	12				1				2					13	11	7	107					167	Steam—Florence Nightingale Hospital, Bury	100	
			(b) .. 2		1														7	5		1				16			
			(c) .. 1		7																						8		
			(d) .. 1																								1		
Rainford ..	Nil ..	4 beds ..	(a) .. 4															8		2						14	No apparatus	Nil	
			(b) .. 2																9		2						11		
			(c) .. 2																										
			(d) .. 1																										
Rawtenstall (B.) ..	Arrangement made with Bury and District Joint Hospital Board	22 beds (The Ridge)	(a) .. 5	7	11				1		4	8						2	34	24	7	133				236	Steam—Small-pox hospital	44	
			(b) .. 3	1	1				1										14	28	3	2				53			
			(c) .. 2	1																							3		
			(d) .. 1	1																							2		
Rishton ..	Nil, "but can send to Blackburn"	At Oswaldtwistle by agreement from 1st January, 1918	(a) .. 2	4							1								16	7	1					31	No apparatus, but can send to Blackburn C.B.	6	
			(b) .. 1																8	3						14			
			(c) .. 1																										
			(d) .. 1																										
Skelmersdale ..	30 beds; and at West Lancashire hospital (if required)	Nil ..	(a) .. 2		12	1			2			1	8					17	11	2						56	Steam—West Lancashire Hospital	8	
			(b) .. 1			1			2										12	3	2						26		
			(c) .. 6		1																						7		
			(d) .. 1		1																						1		













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District.	Nature of Hospital accommodation.		Infectious Diseases.																				Disinfection.					
	For ordinary infectious diseases.	For Small-pox.	Note.—(a) Cases notified. (b) Total deaths. (c) Removals to hospital. (d) Deaths in hospital.																				Apparatus and where situated.	No. of Houses or Rooms disinfected.				
			Small-pox.	Diphtheria and Membranous Group.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Relapsing Fever.	Continued Fever.	Puerperal Fever.	Cerebro-Spinal Meningitis.	Poliomyelitis.	Ophthalmia Neonatorum.	Malaria.	Trench Fever.	Dysentery.	Encephalitis. Lethargica.	Acute Primary Pneumonia.	Acute Influenzal Pneumonia.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Measles and German Measles.			Whooping Cough.	Diarrhoea, &c. (under 2 years).	Chicken-pox.	Total.
Whiston (R.) ..	34 beds ..	20 beds ..	(a) ..	38	7	43	..	..	..	3	..	..	6	..	..	142	1	59	19	13	74	..	..	..	..	404	Steam—Sanatorium	18
			(b) ..	1	1	12	..	..	..	12	..	..	..	..	..	..	..	40	24	6	..	..	..	..	..	83		
			(c) ..	30	..	33	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	63		
			(d) ..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2		
Wigan (R.) ..	Nil ..	Cottage—4 beds*	(a) ..	3	3	40	1	..	..	1	..	..	..	..	..	..	..	9	12	4	18	..	..	..	..	91	No apparatus	33
			(b) ..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	13	3	..	..	..	..	..	..	22		
			(c) ..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2		
			(d) ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1		
County, 1919:—			(a)	4	1789	836	4080	152	..	2	78	38	20	337	770	3	190	26	2915	2175	868	13021	6	8	456	2774		
		Total cases notified ..	(b)	..	222	24	72	35	..	..	57	18	5	..	..	..	..	1940	1339	358	130	86	276	..	..	4572	Total houses or rooms disinfected	10870 and 35 schools
		„ deaths ..	(c)	4	904	14	1918	75	..	..	8	14	2	6	..	..	..	68	..	..	30	..	1	2	3046			
		„ removals to hospital ..	(d)	..	79	3	46	13	..	..	4	8	1	..	..	..	..	40	..	..	6	..	1	..	201			
		„ deaths in hospital ..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		

|| 141 cases of dysentery and 37 of pneumonia occurred in Rainhill Asylum Annexe.

**PUBLICITY.**—On two occasions the whole of the County area has been placarded giving particulars of the Treatment Centres, and every medical practitioner practising in the geographical County has been supplied with a print of the County scheme, and later with a revised print, giving up-to-date information of the facilities available.

**LEGAL PROCEEDINGS.**—Legal proceedings have been instituted for offences under the Venereal Diseases Act, 1917, against persons not qualified as medical practitioners for treating persons suffering from venereal diseases, or prescribing remedies therefor. At Ashton-under-Lyne, in April, 1919, three persons were each fined £30 or imprisonment for 123 days' hard labour; and at Leigh, in April, 1920, a medical herbalist was fined £10.

**Notification of Infectious Diseases.**—Table "F," here inserted, shows the number of cases notified in each urban and rural district in the Administrative County during the year 1919, under the Infectious Disease (Notification) Act, 1889, the Public Health (Tuberculosis) Regulations, and various other Regulations or Orders.

These notifications, according to the information supplied by local Medical Officers of Health in their annual reports, amounted in the aggregate to 27,774, viz. :—

Small-pox ... ..	4	Measles and German	
Diphtheria and Mem-		Measles ... ..	13,021
branous Croup ...	1,789	Whooping Cough ...	6
Erysipelas ... ..	836	Infantile Diarrhœa	8
Scarlet Fever ... ..	4,080	Chicken-pox ... ..	456
Enteric Fever ... ..	152	*Malaria ... ..	770
Continued Fever ...	2	*Dysentery ... ..	190
Puerperal Fever ...	78	*Trench Fever ... ..	3
Cerebro-Spinal Menin-		*Acute Primary Pneu-	
gitis ... ..	38	monia and Acute In-	
Acute Poliomyelitis ...	20	fluenzal Pneumonia.	2,915
Ophthalmia Neonatorum	337	*Acute Encephalitis	
Pulmonary Tuber-		Lethargica and	
culosis ... ..	2,175	Acute Polio-En-	
Other forms of Tuber-		cephalitis ... ..	26
culosis ... ..	868		

\* Notifiable for first time in 1919.



As compared with the year 1918, there was a reduction in the "total" notifications of 2,759, but the decrease is really much greater, as the total for 1919 included 3,904 cases of diseases which were not notifiable in the preceding year. Measles showed a diminution of 8,632 cases, pulmonary tuberculosis 419, enteric fever 167, &c., whilst increases were recorded in scarlet fever 2,119, diphtheria 197, chicken-pox 132, ophthalmia neonatorum 105, erysipelas 104, &c.

Chicken-pox was notifiable for limited periods in Bacup (B.), Crompton, Hindley, Poulton-le-Fylde, Royton, and Stretford. Whooping cough was notifiable at Poulton-le-Fylde and St. Annes-on-the-Sea, and infantile diarrhoea at Litherland, Little Crosby, and Waterloo-with-Seaforth.

Table "G", here inserted, compares the incidence of certain notifiable diseases in this County with other Administrative Counties, with the aggregate of English Administrative Counties, and with England and Wales.

The Public Health (Acute Encephalitis Lethargica and Acute Polio-encephalitis) Regulations, 1918, made the diseases named compulsorily notifiable for a period of one year from the 1st January, 1919. By Regulations, dated 31st December, 1919, these provisions are continued in force until the Minister of Health by Order otherwise directs.

From the 1st March, 1919, by the Public Health (Pneumonia, &c.) Regulations, 1919, malaria, dysentery, trench fever, acute primary pneumonia, and acute influenzal pneumonia became compulsorily notifiable.

By the Public Health (Measles and German Measles) Regulations, 1915, Rescission Order, 1919, measles and German measles ceased to be notifiable from the 31st December, 1919.

**Isolation Hospitals.**—Table "F," inserted opposite page lxi., shows the nature of the hospital accommodation provided in, or available for, each County sanitary district, and gives for each district—

- (a) the number of cases of infectious disease notified,
- (b) the total deaths from such diseases,
- (c) the number of cases removed to hospital, and
- (d) the number of deaths in hospital.

TABLE G.—STATISTICS OF INFECTIOUS DISEASES NOTIFIED IN ADMINISTRATIVE COUNTIES FOR THE YEAR 1919.

	Estimated Civil Population, 1919.	CASES NOTIFIED.												Small-pox.	Cerebro-Spinal Fever.	Polio-myelitis.	Ophthalmia Neonatorum.
		Scarlet Fever.		Diphtheria.		Enteric Fever.		Puerperal Fever.		Erysipelas.							
		Cases.	*Rate.	Cases.	*Rate.	Cases.	*Rate.	Cases.	*Rate.	Cases.	*Rate.						
England and Wales ... ..	35,993,000	83,298	2.29	53,918	1.50	3,447	0.10	2,016	0.06	15,763	0.44	294	848	553	8,648		
Aggregate of English Administrative Counties (excluding London) }	17,499,372	33,360	1.91	24,219	1.38	1,766	0.10	719	0.04	6,511	0.37	144	335	274	2,604		
Administrative Counties :—																	
Lancashire ... ..	1,662,716	4,066	2.45	1,804	1.08	156	0.09	70	0.04	834	0.50	2	31	18	337		
Cheshire ... ..	600,918	1,383	2.30	642	1.07	39	0.06	27	0.04	191	0.32	10	6	3	94		
Cumberland ... ..	206,006	144	0.70	399	1.94	13	0.06	10	0.05	100	0.49	...	1	1	23		
Derbyshire ... ..	548,423	875	1.60	916	1.67	121	0.22	22	0.04	181	0.33	...	12	5	92		
Durham ... ..	890,733	4,071	4.57	1,327	1.49	120	0.13	27	0.03	387	0.43	15	12	4	246		
Kent ... ..	982,445	1,851	1.88	1,615	1.64	87	0.09	38	0.04	343	0.35	23	28	10	146		
Middlesex ... ..	1,229,018	3,820	3.11	2,097	1.71	74	0.06	68	0.06	539	0.44	8	30	27	170		
Northumberland ... ..	378,128	858	2.27	596	1.58	109	0.29	13	0.03	216	0.57	...	6	4	66		
Nottinghamshire ... ..	366,331	725	1.98	374	1.02	26	0.07	21	0.06	158	0.43	...	10	1	66		
Staffordshire ... ..	674,671	742	1.10	781	1.16	55	0.08	24	0.04	224	0.33	1	15	11	121		
Surrey ... ..	687,470	1,219	1.77	1,064	1.55	86	0.13	35	0.05	179	0.26	1	19	14	60		
Warwickshire ... ..	324,557	311	0.96	305	0.94	15	0.05	12	0.04	164	0.51	...	9	6	52		
Yorkshire (West Riding) ...	1,436,274	2,678	1.86	2,085	1.45	214	0.15	61	0.04	668	0.47	13	20	10	230		

MEM.—The above totals and rates are taken from a Report of the Ministry of Health; the totals for Lancashire do not quite agree with the totals of notifications as extracted from local reports.

\* Calculated per 1,000 of the Estimated Civilian Population.



TABLE 5. PLANTING OF MANGROVE TREES IN THE STATE OF CALIFORNIA, 1910-1919.

Year	Number of trees planted	Number of trees surviving	Number of trees destroyed	Total number of trees
1910	100	80	20	100
1911	150	120	30	150
1912	200	160	40	200
1913	250	200	50	250
1914	300	240	60	300
1915	350	280	70	350
1916	400	320	80	400
1917	450	360	90	450
1918	500	400	100	500
1919	550	440	110	550
Total	3,500	2,800	700	3,500

The above figures are based on reports from local health officers and are not necessarily accurate. The total number of trees planted is 3,500, and the total number of trees surviving is 2,800.

The table below gives the percentage of removals to hospital of cases of small-pox, scarlet fever, diphtheria, and enteric fever, and contrasts the mortality from these diseases of cases treated at home with those isolated in hospital:—

	Total cases notified.	Hospital Treatment.			Home Treatment.		Case mortality per cent.	
		Cases removed to hospital.	Percentage of removals.	Deaths in hospital.	Cases treated at home.	Deaths at home.	In hospital.	At home.
Small-pox ..	4	4	100·0	..	..	..	..	
Scarlet Fever.	4080	1918	47·0	46	2162	26	2·39	1·20
Diphtheria ..	1789	904	50·5	79	885	143	8·73	16·15
Enteric Fever.	152	75	49·3	13	77	22	17·33	28·57

The percentages of removals to hospital in the preceding year were: scarlet fever 50·5 of the total notifications, diphtheria 46·3 per cent., and enteric fever 60·1 per cent.

Reference to Table "F" will show as regards many areas the inadequacy, or absence, of hospital accommodation.

**Disinfection.**—The following statement shows the position of the County districts in regard to the provision of disinfecting apparatus:—

Districts provided with steam apparatus ...	27
" using steam apparatus at hospitals ...	44
" using steam apparatus belonging to other districts (mainly County or Municipal Boroughs) ...	25
" provided with dry-heat apparatus ...	1
" using dry-heat apparatus belonging to another district ...	1
" without proper appliances ...	24

Several populous areas, as will be seen on reference to Table "F," are still unprovided with efficient means of disinfection.



Houses or rooms fumigated in 1919, after the occurrence of infectious disease, numbered 10,870 ; disinfection was also carried out at 35 schools.

**Housing of the Working Classes.**—The tabular statement below gives brief details, as supplied by the local Medical Officers of Health, of the action taken by the urban and rural District Councils in regard to the inspection of dwelling-houses during the year 1919, and of the action taken to remedy the defects discovered :—

DISTRICT.	Dwelling-houses.			No. of Representations to Authority with a view to the making of Closing Orders.	No. of Closing Orders made.	Dwelling-houses.		
	Total number In-spected	No. of Special Inspections under Sec. 17 of 1909 Act.	No. considered unfit for human habitation.			No. in which defects remedied without Closing Orders.	No. made habitable after the making of Closing Orders.	No. demolished.
URBAN.								
Abram .....	17	..	..	..	..	14	..	..
Accrington (B.).....	..	..	..	..	..	..	..	..
Adlington .....	..	..	..	..	..	..	..	..
Ashton-in-Makerfield.	207	207	8	4	3	163	2	4
Ashton-under-Lyne (B.) .....	..	..	..	..	..	..	..	..
Aspull .....	1567	28	28	..	..	10	..	..
Atherton .....	59	..	..	..	..	59	..	..
Audenshaw .....	50	..	..	..	..	2	..	..
Bacup (B.) .....	75	52	52	52	..	23	†10	..
Barrowford.....	61	..	..	..	..	21	..	..
Billinge .....	42	38	22	..	..	4	..	..
Blackrod .....	12	..	12	..	..	7	..	..
Frierfield.....	98	..	..	..	..	22	..	..
Carnforth .....	..	..	..	..	..	..	..	..
Chadderton.....	250	..	2	2	2	..	..	..
Chorley (B.) .....	75	75	3	3	..	..	..	..
Church .....	19	..	..	..	..	7	..	..
Clayton-le-Moors .....	..	..	..	..	..	..	†4	..
Clitheroe (B.).....	50	6	6	6	6	16	..	..
Colne (B.).....	152	..	..	..	..	30	..	..
Crompton.....	12	2	..	..	..	5	..	..
Croston .....	5	3	1	..	..	..	..	..
Dalton-in-Furness ..	249	133	133	..	..	23	23	..
Darwen (B.) .....	308	162	58	34	28	6	2	..
Denton .....	80	30	..	..	..	1	..	..
Droylsden .....	23	23	9	9	9	6	..	..
Eccles (B.) .....	96	..	..	..	..	..	..	..
Failsworth .....	..	..	..	..	..	..	..	..
Farnworth .....	52	..	..	..	..	13	..	..
Fleetwood .....	..	..	..	..	..	..	..	..
Formby .....	1	1	1	1	..	4	..	..
Fulwood .....	..	..	..	..	..	..	..	..
Golborne .....	19	19	2	..	..	..	..	..
Grange-over-Sands ..	..	..	..	..	..	..	..	..

\* Total as given by local Medical Officer of Health.

† Closed for habitation, and converted into garage and stable.

‡ Converted into works.

DISTRICT.	Dwelling-houses.			No. of Representations to Authority with a view to the making of Closing Orders.	No. of Closing Orders made.	Dwelling-houses.		
	Total number Inspected.	No. of Special Inspections under Sec. 17 of 1909 Act.	No. considered unfit for human habitation.			No. in which defects remedied without Closing Orders.	No. made habitable after the making of Closing Orders.	No. demolished.
Great Crosby .....	..	..	..	..	..	..	..	..
Great Harwood .....	45	45	45	..	..	..	..	..
Haslingden (B.) .....	..	..	..	..	..	..	†3	12
Haydock .....	191	..	..	..	..	95	..	..
Heysham .....	..	..	..	..	..	..	..	..
Heywood (B.) .....	42	15	15	15	15	4	..	30
Hindley .....	8	8	8	8	8	..	..	3
Horwich .....	13	13	..	..	..	13	..	..
Hurst .....	3+4	..	..	..	..	9	9	..
Huyton-with-Roby ..	1037	65	9	9	..	..	..	..
Ince-in-Makerfield ..	..	..	..	..	..	..	..	..
Irlam .....	1	1	1	1	..	..	..	1
Kearsley .....	19	..	..	..	..	..	..	..
Kirkham .....	26	14	..	..	..	8	..	..
Lancaster (B.) .....	..	..	..	..	..	..	..	..
Lathom & Burscough.	1226	32	..	..	..	25	..	..
Lees .....	36	..	1	1	1	20	†6	..
Leigh (B.) .....	..	..	..	..	..	..	..	..
Leyland .....	23	3	3	3	..	2	..	..
Litherland .....	..	..	..	..	..	..	..	..
Littleborough .....	119	..	..	..	..	..	..	..
Little Crosby .....	8	..	..	..	..	..	..	..
Little Hulton .....	34	..	..	..	..	..	..	..
Little Lever .....	10	10	3	3	..	..	..	..
Longridge .....	..	..	..	..	..	..	..	..
Lytham .....	..	..	..	..	..	..	..	..
Middleton (B.) .....	18	..	1	..	..	..	..	..
Milnrow .....	14	..	..	..	..	9	..	14
Morecambe (B.) .....	206	76	32	..	..	5	†3	..
Mossley (B.) .....	3149	..	23	1	1	..	..	..
Nelson (B.) .....	..	..	..	..	..	..	..	..
Newton-in-Makerfield.	17	17	..	..	..	15	..	..
Norden .....	..	..	..	..	..	..	..	..
Ormskirk .....	525	525	21	..	..	..	..	..
Orrell .....	194	92	28	..	..	12	..	..
Oswaldtwistle .....	30	..	..	..	..	22	..	..
Padiham .....	104	104	3	..	..	..	..	..
Poulton-le-Fylde .....	..	..	..	..	..	..	..	..
Preesall .....	3	3	1	..	..	1	..	..
Prescot .....	175	175	175	175	..	..	..	..
Prestwich .....	2	2	2	2	2	..	..	..
Radcliffe .....	2	2	2	2	2	..	..	..
Rainford .....	..	..	..	..	..	..	..	..
Ramsbottom .....	..	..	..	..	..	..	..	..
Rawtenstall (B.) .....	5366	..	370	..	..	..	..	..
Rishton .....	..	..	..	..	..	..	..	..
Royton .....	300	280	107	3	3	609	..	..
St. Annes-on-the-Sea..	811	..	..	..	..	..	..	..
Skelmersdale .....	168	168	..	..	..	29	..	..
Standish-with- Langtree .....	..	..	..	..	..	..	..	..
Stretford .....	..	..	..	..	..	..	..	..
Swinton and Pendle- bury .....	335	..	..	..	..	..	..	..
Thornton .....	..	..	..	..	..	..	..	..

† Converted into works.

‡ Closed voluntarily.



DISTRICT.	Dwelling-houses.			No. of Representations to Authority with a view to the making of Closing Orders.	No. of Closing Orders made.	Dwelling-houses.		
	Total number Inspected	No. of Special Inspections under Sec. 17 of 1909 Act.	No. considered unfit for human habitation.			No. in which defects remedied without Closing Orders.	No. made habitable after the making of Closing Orders.	No. demolished.
Tottington .....	..	..	..	..	..	..	..	..
Trawden .....	63	17	..	..	..	12	..	..
Turton .....	..	..	..	..	..	..	..	..
Tyldesley-with-Shakerley .....	45	..	..	..	..	40	..	..
Ulverston .....	..	..	..	..	..	..	..	..
Upholland .....	930	..	..	..	..	..	..	..
Urmston .....	22	..	..	..	..	5	..	..
Waltou-le-Dale .....	641	641	55	5	1	..	..	5
Wardle .....	33	..	..	..	..	33	..	..
Waterloo-with-Seaforth .....	..	..	..	..	..	..	..	..
Westhoughton .....	62	40	40	..	..	..	..	..
Whitefield .....	90	40	12	12	12	..	..	..
Whitworth .....	..	..	..	..	..	..	..	..
Widnes (B.) .....	263	200	200	..	..	39	..	..
Withnell .....	30	..	..	..	..	20	..	..
Worsley .....	116	116	..	..	..	30	..	..
<b>Total Urban Districts.</b>	<b>20465</b>	<b>3483</b>	<b>1494</b>	<b>351</b>	<b>93</b>	<b>1493</b>	<b>62</b>	<b>69</b>
<b>RURAL.</b>								
Barton-upon-Irwell ..	26	..	1	1	..	..	..	..
Blackburn .....	..	..	..	..	..	..	..	..
Burnley .....	5	5	3	3	3	2	3	..
Bury .....	40	40	23	..	..	3	..	..
Chorley .....	50	50	20	..	1	..	..	..
Clitheroe (Lancashire portion) .....	411	..	8	8	..	8	..	3
Fylde .....	130	130	..	..	..	..	..	..
Garstang .....	10	10	..	..	..	..	..	4
Lancaster .....	..	..	..	..	..	..	..	..
Leigh .....	98	8	8	2	2	6	..	3
Limehurst .....	89	89	89	..	..	..	..	..
Lunesdale .....	84	..	30	30	3	..	..	..
Preston .....	6	6	10	6	6	..	..	..
Sefton .....	640	70	25	..	..	..	..	..
Ulverston .....	367	..	..	..	..	29	..	..
Warrington .....	..	..	..	..	..	..	..	..
West Lancashire .....	13	..	1	1	1	..	..	..
Whiston .....	129	..	..	..	..	13	..	..
Wigan .....	14	2	2	..	..	..	..	1
<b>Total Rural Districts.</b>	<b>2112</b>	<b>410</b>	<b>220</b>	<b>51</b>	<b>16</b>	<b>61</b>	<b>3</b>	<b>11</b>
<b>Total Administrative County (1919) .....</b>	<b>22577</b>	<b>3893</b>	<b>1714</b>	<b>402</b>	<b>109</b>	<b>1554</b>	<b>65</b>	<b>80</b>
Do. (1918) .....	4436	466	188	138	97	623	24	21
Do. (1917) .....	11445	601	233	178	108	941	45	56
Do. (1916) .....	15564	1300	329	244	163	2157	85	61
Do. (1915) .....	27090	4121	890	573	486	3644	296	170



During the war period house inspection was reduced to a minimum, but in the year under report much more attention was given to this important item of sanitary administration. The number of houses inspected increased from 4,436 in 1918 to 22,577, and the number "specially inspected under Section 17 of the 1909 Act" from 466 to 3,893. Of the latter, 1,714 were considered unfit for human habitation, but owing, no doubt, to the shortage of housing accommodation, only 109 Closing Orders were made; in 1,554 instances, it is stated, the defective conditions were remedied without the making of Closing Orders, and 65 were either made habitable after an Order to close had been issued, or were closed as dwellings. Insanitary houses demolished numbered 80.

**HOUSES ERECTED IN 1919.**—Enquiries as to the number of houses erected in 1919 elicited the following replies:—By Local Authorities nil, by private enterprise 145 in 32 districts. In 1918 these totals were respectively 13 and 29, in 1917 29 and 279, and in 1916 none and 649.

**Housing, Town Planning, &c., Act, 1919.**—On the 31st July, 1919, this Act was passed.

**Local Schemes.**—Under Section 1 it is the duty of every Local Authority, within the meaning of Part III. of the principal Act, to consider the needs of their area with regard to the provision of houses for the working classes, and *within three months* after the passing of this Act, and thereafter as often as occasion arises, prepare and submit to the \*Local Government Board a scheme specifying—

- (a) the approximate number and nature of the houses to be provided by the Local Authority;
- (b) the approximate quantity of land to be acquired and the localities in which such land is to be acquired;
- (c) the average number of houses per acre;

\* Now the Ministry of Health.



(d) the time within which the scheme (or any part thereof) is to be carried into effect.

Power of County Councils and Local Government Board to act in cases where a Local Authority is in default—Section 3 (1) authorises the Local Government Board, when they are satisfied that a Local Authority have failed to fulfil their obligations, either as to the preparation or the carrying into effect of a scheme, or that for any other reason it is desirable that any such obligation should be performed by the County Council instead of by the Local Authority, to transfer to the Council of the County in which the district of the Local Authority is comprised the obligation to prepare and carry out a scheme, or to carry out, either wholly or in part, the provisions of a scheme prepared by the Local Authority.

Where the Board make an Order under this Section, the Order may, for the purpose of enabling the County Council to give effect to the Order, apply any of the provisions of the Housing Acts, or Section 63 of the Local Government Act, 1894, as may be necessary. Provided that the Local Authority shall be entitled to appeal to the Board if, in their own opinion, the amount of the expense which the County Council require them to defray is excessive or unreasonable, or against any refusal by the County Council to make an Order under the said Section 63.

Section 4 provides where a Local Authority, or in cases where the powers of a Local Authority have been transferred to a County Council, such Council have, in the opinion of the Local Government Board, failed to fulfil their obligations, the Board may themselves prepare and carry out a scheme, or take whatever steps may be necessary to carry out any scheme prepared by the Local Authority or Council.

Section 5 deals with a Local Authority's powers, under Part I. (unhealthy areas) and Part II. (unhealthy dwellings) of the principal Act, and the Local Government Board may require a Local Authority to make a scheme for the improvement of an unhealthy area and to do all things necessary for



carrying into execution a scheme so made, and if the Local Authority fail within the time specified, the County Council may be authorised to prepare a scheme and carry same into effect, or the Board themselves may do so.

Inspection by County Medical Officer of Health.—Under Section 6, where a representation is made to the Local Government Board that the Local Authority of any County district have failed to exercise their powers under Parts I. or II. of the principal Act, the Board may direct the County Council to instruct the County Medical Officer of Health to inspect such district, and to make a report to the Board as to the exercise of the powers aforesaid by the Local Authority.

THE HOUSING ACTS, 1890-1919.—The provision of houses by Local Authorities.—In September, 1919, the Ministry of Health forwarded to all Local Authorities a Form of Survey of Housing Needs which the Clerk to the Council was required to fill in, giving information under the following headings:—

Prevailing conditions affecting shortage of houses ;

Estimate of housing needs ;

Areas which are being, or may have to be, dealt with as unhealthy under Part I. or Part II. of the Housing Act of 1890 ;

Insanitary houses (other than houses in unhealthy areas, of which particulars are given under the last heading) ;

Scheme of the Local Authority for the provision of new houses under Section 1 of the Housing, Town Planning, &c., Act, 1919.

It was requested that these Forms should be completed and returned to the Regional Housing Commissioner by 31st October, 1919.

On 30th August, 1919, a circular was addressed to County Councils by the Ministry of Health, asking County Medical Officers of Health to perform certain duties in connection with the Housing Schemes submitted to the Ministry by Local Authorities.



In this connection the District Housing Commissioner referred to the County Medical Officer of Health the Forms of Survey submitted by the Local Authorities in the Administrative County, requesting his opinion as to the adequacy or otherwise of these schemes. In due course the schemes submitted were reported upon, the investigations being carried out by the Medical and Sanitary Staff of the County Public Health Department.

The schemes were classified under four headings, viz. :—

- (1) Reasonably adequate.
- (2) Accept as minimum.
- (3) Inadequate.
- (4) Excessive.

The classification of the 118 original schemes investigated up to June 30th, 1920, shewing the number of houses proposed, is set forth in the following summary :—

No. of Schemes.	C.M.O.H.'s. Classification.	Estimated Net No. of houses required.	No. of Houses proposed by Local Authorities.
60*	Adequate ... ..	22,672	21,672
10	Accept as minimum ...	2,426	2,386
47†	Inadequate ... ..	8,215	5,091
1	Excessive ... ..	415	415
118		33,728	29,564

\* Includes 4 "nil" returns.

† Includes 9 "nil" returns.

Table H, here inserted, shows the estimated requirements of each urban and rural authority in the Administrative County, together with the number of houses each Authority proposes to build (if any), and showing the stage reached in regard to each scheme on June 30th, 1920. Some of the schemes have been amended since the original proposals were submitted, and the totals are, therefore, not comparable with those contained in the summary above.

TABLE H.

## ADMINISTRATIVE COUNTY OF LANCASTER.

## HOUSING NEEDS OF EACH URBAN AND RURAL DISTRICT

as extracted from the Ministry of Health's Form of Survey of Housing Needs, and shewing the position of each scheme on the 26th, June, 1920.

(The figures in Cols. 6-16 are from the official government publication).

DISTRICT.	Area.	Estimated Population, 1919.	Original Estimate of New Houses required.	Total No. of New Houses proposed.	Number of Schemes.	Area of Sites. (Acres).		No. of Lay-outs.		No. of Houses included in House Plans.		No. of Houses included in Tenders.		No. of Houses.	
						Submitted.	Approved.	Submitted.	Approved.	Submitted.	Approved.	Submitted.	Approved.	On which work has commenced.	Completed.
URBAN—															
Abram.....	1,984	6,498	200	250	3	14.8	14.8	3	...	...	...	...	...	...	...
Accrington (B.) .....	3,427	45,479	225	...	...	...	...	...	...	...	...	...	...	...	...
Adlington .....	1,062	4,390	50	100	1	5.5	5.5	1	1	30	30	30	...	...	...
Ashton-in-Makerfield .....	6,251	22,150	330	330	2	34.5	34.5	2	1	80	80	80	80	28	...
Ashton-under-Lyne (B.) .....	1,345	45,519	360	360	1	30.3	30.3	1	1	86	86	...	...	...	...
Aspull .....	1,906	7,579	...	...	...	...	...	...	...	...	...	...	...	...	...
Atherton .....	2,265	20,390	635	600	2	136.0	19.0	1	1	182	182	96	96	38	12
Audenshaw .....	1,241	8,178	50	50	2	10.7	10.7	2	1	50	50	...	...	...	...
Bacup (B.) .....	6,120	21,090	600	600	5 3	71.2 *	40.2 *	5	3	64	64	18	18	28	...
Barrowford .....	1,385	5,652	207	207	1	16.8	...	...	...	...	...	...	...	...	...
Billinge .....	4,596	4,749	75	117	1	5.0	5.0	1	1	20	20	...	...	...	...
Blackrod.....	2,392	4,057	100	25	1	3.0	...	1	1	16	16	...	...	...	...
Brierfield .....	807	8,779	100	100	4 1	12.3 *	10.5	1	1	...	...	...	...	...	...
Carnforth .....	1,505	3,326	50	100	1	5.0	...	...	...	...	...	...	...	...	...
Chadderton .....	3,082	29,742	561	500	2	36.2	36.2	2	1	96	96	96	96	26	...
Chorley (B.) .....	3,614	32,912	600	600	2 1	8.7 *	5.2	3	1	53	53	...	...	...	...
Church .....	529	6,744	...	20	...	...	...	...	...	...	...	...	...	...	...
Clayton-le-Moors .....	1,059	8,804	38	38	1	3.0	...	...	...	...	...	...	...	...	...
Clitheroe (B.) .....	2,385	12,473	80	100	1	8.1	8.1	1	1	100	100	...	...	...	...
Colne (B.) .....	5,063	26,924	812	812	1	4.0	...	1	1	...	...	...	...	...	...
Crompton .....	2,865	15,436	489	489	1	20.0	...	1	1	...	...	...	...	...	...
Croston .....	2,347	1,977	20	48	1	5.0	...	...	...	...	...	...	...	...	...

NOTE.—An asterisk in Columns 7 to 12 indicates that schemes, &amp;c., have been submitted or approved, but the exact figures cannot be stated.



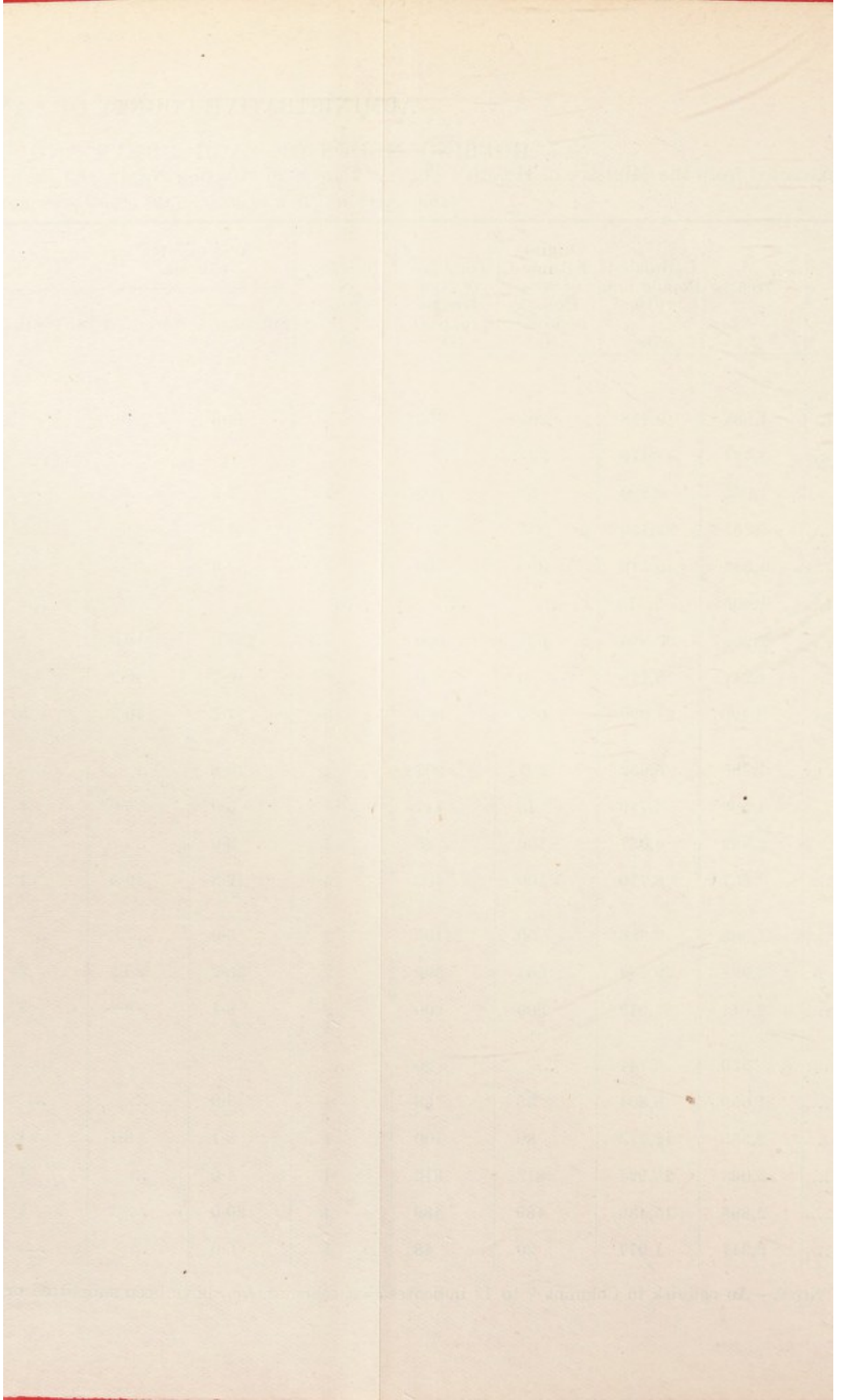








TABLE H—Contd.

DISTRICT.	Area.	Estimated Population, 1919.	Original Estimate of New Houses required.	Total No. of New Houses proposed.	Number of Schemes.	Area of Sites. (Acres).		No. of Lay-outs.		No. of Houses included in House Plans		No. of Houses included in Tenders.		No. of Houses.	
						Submitted.	Approved.	Submitted.	Approved.	Submitted.	Approved.	Submitted.	Approved.	On which work has commenced	Completed.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
URBAN—Contd.															
Lees .....	288	4,902	40	150	1	8.6	...	...	...	...	...	...	...	...	...
Leigh (B.) .....	6,359	46,322	1,125	1,125	5	113.0	14.8	4	3	150	150	150	150	90	...
Leyland .....	3,725	9,244	300	359	1	22.7	22.7	1	1	...	...	...	...	...	...
Litherland .....	875	17,525	861	300	1	51.5	51.5	1	1	*	...	...	...	...	...
Littleborough.....	7,856	11,676	149	132	1	12.9	12.9	1	1	*	*	32	...	...	...
Little Crosby .....	1,924	913	...	...	...	...	...	...	...	...	...	...	...	...	...
Little Hulton .....	1,699	8,163	200	200	2	59.0	59.0	2	1	43	43	43	43	20	...
Little Lever .....	808	4,802	240	211	1	20.5	20.5	1	1	211	211	114	114	38	...
Longridge .....	3,285	4,210	...	6	1	0.5	...	...	...	...	...	...	...	...	...
Lytham .....	2,464	10,227	...	70	2	7.0	...	...	...	...	...	...	...	...	...
Middleton (B.) .....	4,775	28,872	700	400	4	54.9	30.9	2	2	58	42	...	...	...	...
Milnrow .....	5,194	8,355	564	400	1	67.9	67.9	1	1	54	54	54	...	...	...
Morecambe (B.) .....	1,801	13,925	25	100	1	11.8	11.8	1	1	100	100	...	...	...	...
Mossley (B.) .....	3,624	12,837	140	50	1	6.1	6.1	...	...	...	...	...	...	...	...
Nelson (B.) .....	3,466	43,172	600	313	4	69.5	14.0	4	3	177	177	177	177	13	3
Newton-in-Makerfield .....	3,105	19,840	256	419	1	24.8	24.8	1	1	144	144	16	16	...	...
Norden .....	5,358	4,035	...	...	...	...	...	...	...	...	...	...	...	...	...
Ormskirk .....	593	6,908	110	110	1	10.0	10.0	1	1	...	...	...	...	...	...
Orrell .....	1,617	6,944	103	76	1	7.7	7.7	1	1	80	80	...	...	...	...
Oswaldtwistle .....	4,885	14,968	...	105	3	4.8	...	1	1	...	...	...	...	...	...
Padiham .....	970	12,926	142	100	1	10.0	...	...	...	...	...	...	...	...	...
Poulton-le-Fylde .....	915	2,599	...	...	...	...	...	...	...	...	...	...	...	...	...
Preesall .....	3,232	1,605	37	36	2	2.0	...	...	...	...	...	...	...	...	...
Prescot .....	409	8,941	636	670	1	12.2	12.2	1	1	100	100	20	20	24	...
Prestwich .....	2,448	15,969	600	600	3	39.3	39.3	3	3	333	249	305	106	40	...
Radcliffe .....	3,082	24,428	520	518	3	47.7	47.7	3	3	68	68	52	52	42	8
Rainford .....	5,877	3,448	36	36	2	3.7	3.7	2	2	18	18	...	...	...	...



Area of State (Acres)	Estimated Annual Production	Number of Schedules	Total No. of Acres Proposed	Original Estimate of Acres Proposed	Estimated Population 1919	Area	...
100	100	1	100	100	1,000	100	...
200	200	1	200	200	2,000	200	...
300	300	1	300	300	3,000	300	...
400	400	1	400	400	4,000	400	...
500	500	1	500	500	5,000	500	...
600	600	1	600	600	6,000	600	...
700	700	1	700	700	7,000	700	...
800	800	1	800	800	8,000	800	...
900	900	1	900	900	9,000	900	...
1000	1000	1	1000	1000	10,000	1000	...
1100	1100	1	1100	1100	11,000	1100	...
1200	1200	1	1200	1200	12,000	1200	...
1300	1300	1	1300	1300	13,000	1300	...
1400	1400	1	1400	1400	14,000	1400	...
1500	1500	1	1500	1500	15,000	1500	...
1600	1600	1	1600	1600	16,000	1600	...
1700	1700	1	1700	1700	17,000	1700	...
1800	1800	1	1800	1800	18,000	1800	...
1900	1900	1	1900	1900	19,000	1900	...
2000	2000	1	2000	2000	20,000	2000	...

TABLE H—Contd.

DISTRICT.	Area.	Estimated Population, 1919.	Original Estimate of New Houses required.	Total No. of New Houses proposed.	Number of Schemes.	Area of Sites. (Acres).		No. of Lay-outs.		No. of Houses included in House Plans		No. of Houses included in Tenders.		No. of Houses	
						Submitted.	Approved.	Submitted.	Approved.	Submitted.	Approved.	Submitted.	Approved.	On which work has commenced	Completed.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>URBAN—Contd.</b>															
Ramsbottom .....	6,423	15,310	100	100	1	8.3	8.3	1	1	50	50	20	20	6	...
Rawtenstall (B.) .....	9,535	28,521	1,195	1,195	5	61.1	61.1	2	2	200	200	...	...	...	...
Rishton .....	2,985	7,611	21	48	1	1.0	...	...	...	...	...	...	...	...	...
Royton .....	2,147	18,283	420	420	5	141.9	140.0	4	1	*	...	...	...	...	...
St. Annes-on-the-Sea .....	3,342	9,959	88	60	1	5.3	5.3	1	1	...	...	...	...	6	...
Skelmersdale .....	1,942	6,690	12	100	1	1.0	1.0	1	...	...	...	...	...	...	...
Standish-with-Langtree .....	3,266	7,279	133	133	1	5.8	5.8	1	1	57	57	...	...	...	...
Stretford .....	3,240	47,506	800	800	5	65.7	65.7	5	4	542	542	542	542	180	38
Swinton and Pendlebury ...	2,284	29,318	675	675	2	23.7	23.7	2	2	231	231	230	230	...	...
Thornton .....	2,996	5,331	200	100	...	...	...	...	...	...	...	...	...	...	...
Tottington .....	2,544	7,047	143	143	3	10.6	2.4	...	...	...	...	...	...	...	...
Trawden .....	6,815	2,779	...	116	3	6.9	...	...	...	...	...	...	...	...	...
Turton .....	17,335	12,461	91	141	3	11.1	8.7	1	1	56	56	...	...	...	...
Tyldesley-with-Shakerley ...	2,490	16,255	725	500	4	49.2	21.4	1	1	224	224	...	...	...	...
Ulverston .....	3,172	10,389	80	80	1	1.6	1.6	1	1	18	18	...	...	...	...
Upholland .....	4,686	5,279	218	100	3	8.8	8.8	2	2	*	*	...	...	...	...
Urmston .....	991	8,720	50	50	1	5.0	5.0	...	...	...	...	...	...	...	...
Walton-le-Dale .....	4,658	12,133	435	435	3	34.5	34.5	2	2	66	66	...	...	...	...
Wardle .....	3,192	3,443	149	116	1	10.5	10.5	1	1	...	...	...	...	...	...
Waterloo-with-Seaforth .....	986	29,895	462	462	2	26.0	3.0	1	1	...	...	...	...	...	...
Westhoughton .....	5,560	15,809	415	415	2	46.9	46.9	2	2	250	250	250	250	36	...
Whitefield .....	1,404	7,738	463	460	2	13.0	8.0	1	1	54	54	44	44	28	...
Whitworth .....	4,483	8,584	300	300	...	...	...	...	...	...	...	...	...	...	...
Widnes (B.) .....	3,093	34,052	1,100	1,100	1	163.8	163.8	1	1	1,500	1,500	...	...	...	...
Withnell .....	3,705	2,962	68	21	3	3.2	...	...	...	...	...	...	...	...	...
Worsley .....	5,413	15,052	585	380	3	38.2	38.2	3	3	60	60	60	60	...	...
Total Urban Districts ...	338,850	1,502,876	30,952	29,682	186	2605.6	1840.9	117	97	9,723	9,615	5,943	4,537	767	69



Year	Month	Day	Hour	Temperature	Wind	Direction	Remarks
1870	Jan	1	10	32	10	W	
1870	Jan	2	10	30	12	W	
1870	Jan	3	10	28	15	W	
1870	Jan	4	10	26	18	W	
1870	Jan	5	10	24	20	W	
1870	Jan	6	10	22	22	W	
1870	Jan	7	10	20	25	W	
1870	Jan	8	10	18	28	W	
1870	Jan	9	10	16	30	W	
1870	Jan	10	10	14	32	W	
1870	Jan	11	10	12	35	W	
1870	Jan	12	10	10	38	W	
1870	Jan	13	10	8	40	W	
1870	Jan	14	10	6	42	W	
1870	Jan	15	10	4	45	W	
1870	Jan	16	10	2	48	W	
1870	Jan	17	10	0	50	W	
1870	Jan	18	10	-2	52	W	
1870	Jan	19	10	-4	55	W	
1870	Jan	20	10	-6	58	W	
1870	Jan	21	10	-8	60	W	
1870	Jan	22	10	-10	62	W	
1870	Jan	23	10	-12	65	W	
1870	Jan	24	10	-14	68	W	
1870	Jan	25	10	-16	70	W	
1870	Jan	26	10	-18	72	W	
1870	Jan	27	10	-20	75	W	
1870	Jan	28	10	-22	78	W	
1870	Jan	29	10	-24	80	W	
1870	Jan	30	10	-26	82	W	
1870	Jan	31	10	-28	85	W	
1870	Feb	1	10	-30	88	W	
1870	Feb	2	10	-32	90	W	
1870	Feb	3	10	-34	92	W	
1870	Feb	4	10	-36	95	W	
1870	Feb	5	10	-38	98	W	
1870	Feb	6	10	-40	100	W	
1870	Feb	7	10	-42	102	W	
1870	Feb	8	10	-44	105	W	
1870	Feb	9	10	-46	108	W	
1870	Feb	10	10	-48	110	W	
1870	Feb	11	10	-50	112	W	
1870	Feb	12	10	-52	115	W	
1870	Feb	13	10	-54	118	W	
1870	Feb	14	10	-56	120	W	
1870	Feb	15	10	-58	122	W	
1870	Feb	16	10	-60	125	W	
1870	Feb	17	10	-62	128	W	
1870	Feb	18	10	-64	130	W	
1870	Feb	19	10	-66	132	W	
1870	Feb	20	10	-68	135	W	
1870	Feb	21	10	-70	138	W	
1870	Feb	22	10	-72	140	W	
1870	Feb	23	10	-74	142	W	
1870	Feb	24	10	-76	145	W	
1870	Feb	25	10	-78	148	W	
1870	Feb	26	10	-80	150	W	
1870	Feb	27	10	-82	152	W	
1870	Feb	28	10	-84	155	W	
1870	Feb	29	10	-86	158	W	
1870	Feb	30	10	-88	160	W	
1870	Feb	31	10	-90	162	W	

TABLE H—Contd.

DISTRICT	Area.	Estimated Population, 1919.	Original Estimate of New Houses required.	Total No. of New Houses proposed.	Number of Schemes.	Area of Sites. (Acres).		No. of Lay-outs.		No. of Houses included in House Plans		No. of Houses included in Tenders.		No. of Houses.	
						Submitted.	Approved.	Submitted.	Approved.	Submitted.	Approved.	Submitted.	Approved.	On which work has commenced	Completed.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
RURAL—															
Barton-upon-Irwell .....	6,793	9,052	130	130	2	11-0	...	...	...	...	...	...	...	...	...
Blackburn .....	20,150	8,477	78	99	3	9-9	9-9	3	3	80	80	80	80	58	...
Burnley .....	41,774	18,266	138	204	6	14-4	1-5	...	...	...	...	...	...	...	...
Bury .....	12,016	9,063	63	234	8	78-8	...	...	...	...	...	...	...	...	...
Chorley .....	39,988	22,625	304	304	12	55-4	53-9	10	9	220	220	...	...	...	...
Clitheroe (Lancashire portion)	32,168	6,496	22	22	1	2-5	2-5	1	1	22	22	...	...	...	...
Fylde .....	38,541	11,493	50	29	12	6-2	3-4	...	...	...	...	...	...	...	...
Garstang.....	57,380	10,738	320	320	31	56-0	...	...	...	...	...	...	...	...	...
Lancaster .....	54,503	8,732	46	46	5	7-2	...	...	...	...	...	...	...	...	...
Leigh .....	11,574	10,389	873	711	4	79-1	79-1	3	3	740	740	740	740	87	...
Limehurst .....	4,689	9,281	100	100	...	...	...	...	...	...	...	...	...	...	...
Lunesdale .....	76,267	6,154	74	74	3	3-3	...	...	...	...	...	...	...	...	...
Preston .....	52,929	19,323	200	200	9	22-9	15-4	1	...	...	...	...	...	...	...
Sefton .....	14,867	4,899	100	100	7	4-5	4-5	7	7	36	36	...	...	...	...
Ulverston .....	127,549	16,683	100	50	13	11-8	2-1	...	...	...	...	...	...	...	...
Warrington .....	19,355	11,630	88	112	7	17-2	...	...	...	...	...	...	...	...	...
West Lancashire .....	61,555	20,067	354	354	25	44-2	26-5	14	12	52	52	...	...	...	...
Whiston .....	31,179	19,692	334	192	13	22-4	8-0	8	8	80	42	34	...	...	...
Wigan .....	11,695	6,120	116	116	6	18-2	4-2	...	...	...	...	...	...	...	...
Totals:—															
Rural Districts .....	714,972	229,180	3,490	3,397	167	465-0	211-0	47	43	1,230	1,192	854	820	145	...
Urban Districts .....	338,850	1,502,876	30,952	29,682	186	2605-6	1840-9	117	97	9,723	9,615	5,943	4,537	767	69
Administrative County...	1,053,822	1,732,056	34,442	33,079	353	3070-6	2051-9	164	140	10,953	10,807	6,797	5,357	912	69



No.	Area of State (square miles)		Number of Townships	Total No. of Townships	Original Estimate of Area (square miles)	Estimated Location of 1918	Area
	1	2					
1	100	100	1	100	100	100	100
2	200	200	2	200	200	200	200
3	300	300	3	300	300	300	300
4	400	400	4	400	400	400	400
5	500	500	5	500	500	500	500
6	600	600	6	600	600	600	600
7	700	700	7	700	700	700	700
8	800	800	8	800	800	800	800
9	900	900	9	900	900	900	900
10	1000	1000	10	1000	1000	1000	1000
11	1100	1100	11	1100	1100	1100	1100
12	1200	1200	12	1200	1200	1200	1200
13	1300	1300	13	1300	1300	1300	1300
14	1400	1400	14	1400	1400	1400	1400
15	1500	1500	15	1500	1500	1500	1500
16	1600	1600	16	1600	1600	1600	1600
17	1700	1700	17	1700	1700	1700	1700
18	1800	1800	18	1800	1800	1800	1800
19	1900	1900	19	1900	1900	1900	1900
20	2000	2000	20	2000	2000	2000	2000
21	2100	2100	21	2100	2100	2100	2100
22	2200	2200	22	2200	2200	2200	2200
23	2300	2300	23	2300	2300	2300	2300
24	2400	2400	24	2400	2400	2400	2400
25	2500	2500	25	2500	2500	2500	2500
26	2600	2600	26	2600	2600	2600	2600
27	2700	2700	27	2700	2700	2700	2700
28	2800	2800	28	2800	2800	2800	2800
29	2900	2900	29	2900	2900	2900	2900
30	3000	3000	30	3000	3000	3000	3000
31	3100	3100	31	3100	3100	3100	3100
32	3200	3200	32	3200	3200	3200	3200
33	3300	3300	33	3300	3300	3300	3300
34	3400	3400	34	3400	3400	3400	3400
35	3500	3500	35	3500	3500	3500	3500
36	3600	3600	36	3600	3600	3600	3600
37	3700	3700	37	3700	3700	3700	3700
38	3800	3800	38	3800	3800	3800	3800
39	3900	3900	39	3900	3900	3900	3900
40	4000	4000	40	4000	4000	4000	4000
41	4100	4100	41	4100	4100	4100	4100
42	4200	4200	42	4200	4200	4200	4200
43	4300	4300	43	4300	4300	4300	4300
44	4400	4400	44	4400	4400	4400	4400
45	4500	4500	45	4500	4500	4500	4500
46	4600	4600	46	4600	4600	4600	4600
47	4700	4700	47	4700	4700	4700	4700
48	4800	4800	48	4800	4800	4800	4800
49	4900	4900	49	4900	4900	4900	4900
50	5000	5000	50	5000	5000	5000	5000

No. of Observations	Date	Time	Latitude	Longitude	Observations		Remarks
					Altitude	Distance	
1	1880	10.00	34.00	120.00	10.00	10.00	Clear
2	1880	10.15	34.00	120.00	10.15	10.15	Clear
3	1880	10.30	34.00	120.00	10.30	10.30	Clear
4	1880	10.45	34.00	120.00	10.45	10.45	Clear
5	1880	11.00	34.00	120.00	11.00	11.00	Clear
6	1880	11.15	34.00	120.00	11.15	11.15	Clear
7	1880	11.30	34.00	120.00	11.30	11.30	Clear
8	1880	11.45	34.00	120.00	11.45	11.45	Clear
9	1880	12.00	34.00	120.00	12.00	12.00	Clear
10	1880	12.15	34.00	120.00	12.15	12.15	Clear
11	1880	12.30	34.00	120.00	12.30	12.30	Clear
12	1880	12.45	34.00	120.00	12.45	12.45	Clear
13	1880	13.00	34.00	120.00	13.00	13.00	Clear
14	1880	13.15	34.00	120.00	13.15	13.15	Clear
15	1880	13.30	34.00	120.00	13.30	13.30	Clear
16	1880	13.45	34.00	120.00	13.45	13.45	Clear
17	1880	14.00	34.00	120.00	14.00	14.00	Clear
18	1880	14.15	34.00	120.00	14.15	14.15	Clear
19	1880	14.30	34.00	120.00	14.30	14.30	Clear
20	1880	14.45	34.00	120.00	14.45	14.45	Clear
21	1880	15.00	34.00	120.00	15.00	15.00	Clear
22	1880	15.15	34.00	120.00	15.15	15.15	Clear
23	1880	15.30	34.00	120.00	15.30	15.30	Clear
24	1880	15.45	34.00	120.00	15.45	15.45	Clear
25	1880	16.00	34.00	120.00	16.00	16.00	Clear
26	1880	16.15	34.00	120.00	16.15	16.15	Clear
27	1880	16.30	34.00	120.00	16.30	16.30	Clear
28	1880	16.45	34.00	120.00	16.45	16.45	Clear
29	1880	17.00	34.00	120.00	17.00	17.00	Clear
30	1880	17.15	34.00	120.00	17.15	17.15	Clear
31	1880	17.30	34.00	120.00	17.30	17.30	Clear
32	1880	17.45	34.00	120.00	17.45	17.45	Clear
33	1880	18.00	34.00	120.00	18.00	18.00	Clear
34	1880	18.15	34.00	120.00	18.15	18.15	Clear
35	1880	18.30	34.00	120.00	18.30	18.30	Clear
36	1880	18.45	34.00	120.00	18.45	18.45	Clear
37	1880	19.00	34.00	120.00	19.00	19.00	Clear
38	1880	19.15	34.00	120.00	19.15	19.15	Clear
39	1880	19.30	34.00	120.00	19.30	19.30	Clear
40	1880	19.45	34.00	120.00	19.45	19.45	Clear
41	1880	20.00	34.00	120.00	20.00	20.00	Clear
42	1880	20.15	34.00	120.00	20.15	20.15	Clear
43	1880	20.30	34.00	120.00	20.30	20.30	Clear
44	1880	20.45	34.00	120.00	20.45	20.45	Clear
45	1880	21.00	34.00	120.00	21.00	21.00	Clear
46	1880	21.15	34.00	120.00	21.15	21.15	Clear
47	1880	21.30	34.00	120.00	21.30	21.30	Clear
48	1880	21.45	34.00	120.00	21.45	21.45	Clear
49	1880	22.00	34.00	120.00	22.00	22.00	Clear
50	1880	22.15	34.00	120.00	22.15	22.15	Clear
51	1880	22.30	34.00	120.00	22.30	22.30	Clear
52	1880	22.45	34.00	120.00	22.45	22.45	Clear
53	1880	23.00	34.00	120.00	23.00	23.00	Clear
54	1880	23.15	34.00	120.00	23.15	23.15	Clear
55	1880	23.30	34.00	120.00	23.30	23.30	Clear
56	1880	23.45	34.00	120.00	23.45	23.45	Clear
57	1880	24.00	34.00	120.00	24.00	24.00	Clear
58	1880	24.15	34.00	120.00	24.15	24.15	Clear
59	1880	24.30	34.00	120.00	24.30	24.30	Clear
60	1880	24.45	34.00	120.00	24.45	24.45	Clear
61	1880	25.00	34.00	120.00	25.00	25.00	Clear
62	1880	25.15	34.00	120.00	25.15	25.15	Clear
63	1880	25.30	34.00	120.00	25.30	25.30	Clear
64	1880	25.45	34.00	120.00	25.45	25.45	Clear
65	1880	26.00	34.00	120.00	26.00	26.00	Clear
66	1880	26.15	34.00	120.00	26.15	26.15	Clear
67	1880	26.30	34.00	120.00	26.30	26.30	Clear
68	1880	26.45	34.00	120.00	26.45	26.45	Clear
69	1880	27.00	34.00	120.00	27.00	27.00	Clear
70	1880	27.15	34.00	120.00	27.15	27.15	Clear
71	1880	27.30	34.00	120.00	27.30	27.30	Clear
72	1880	27.45	34.00	120.00	27.45	27.45	Clear
73	1880	28.00	34.00	120.00	28.00	28.00	Clear
74	1880	28.15	34.00	120.00	28.15	28.15	Clear
75	1880	28.30	34.00	120.00	28.30	28.30	Clear
76	1880	28.45	34.00	120.00	28.45	28.45	Clear
77	1880	29.00	34.00	120.00	29.00	29.00	Clear
78	1880	29.15	34.00	120.00	29.15	29.15	Clear
79	1880	29.30	34.00	120.00	29.30	29.30	Clear
80	1880	29.45	34.00	120.00	29.45	29.45	Clear
81	1880	30.00	34.00	120.00	30.00	30.00	Clear
82	1880	30.15	34.00	120.00	30.15	30.15	Clear
83	1880	30.30	34.00	120.00	30.30	30.30	Clear
84	1880	30.45	34.00	120.00	30.45	30.45	Clear
85	1880	31.00	34.00	120.00	31.00	31.00	Clear
86	1880	31.15	34.00	120.00	31.15	31.15	Clear
87	1880	31.30	34.00	120.00	31.30	31.30	Clear
88	1880	31.45	34.00	120.00	31.45	31.45	Clear
89	1880	32.00	34.00	120.00	32.00	32.00	Clear
90	1880	32.15	34.00	120.00	32.15	32.15	Clear
91	1880	32.30	34.00	120.00	32.30	32.30	Clear
92	1880	32.45	34.00	120.00	32.45	32.45	Clear
93	1880	33.00	34.00	120.00	33.00	33.00	Clear
94	1880	33.15	34.00	120.00	33.15	33.15	Clear
95	1880	33.30	34.00	120.00	33.30	33.30	Clear
96	1880	33.45	34.00	120.00	33.45	33.45	Clear
97	1880	34.00	34.00	120.00	34.00	34.00	Clear
98	1880	34.15	34.00	120.00	34.15	34.15	Clear
99	1880	34.30	34.00	120.00	34.30	34.30	Clear
100	1880	34.45	34.00	120.00	34.45	34.45	Clear



TABLE I.—SUMMARY OF SANITARY WORK CARRIED OUT DURING 1919.

DISTRICT.	Refuse Destroyers provided.		CANAL BOATS.		DAIRIES, COWSHEDS, &C.				NUISANCES.				CLOSET ACCOMMODATION.										SMOKE OBSERVATIONS.		MEDICAL OFFICERS OF HEALTH AND INSPECTORS OF NUISANCES, WITH SALARIES.									
	No. Inspected.	No. of Infractions.	Public Abattoirs provided.	No. of Cowkeepers.	No. of Dairywomen or Parveyons.	Any arrangement for Veterinary Inspection of Cows.	Samples of Milk examined for Tubercle.	Notices served.		Nuisances abated.	Legal Proceedings and Result.	Privy Middens.		No. of Pull Closets.	No. of Ashpits (excluding middens).	No. of Fresh Water Closets.	No. of Portable Receptacles for refuse.	Conversions during 1919.						Council's Contribution towards cost of Conversion.	Number.	Legal Proceedings and Result.								
								Informal.	Statutory.			No. of Middens.	No. of Closets.					Privy Closets to Fresh W. C's.	Waste W. C's.	Privy Closets to Waste W. C's.	Privy Closets to Pulls, &c.	Privy Closets to Fresh W. C's.	Full Closets to Waste W. C's.					Full Closets to Fresh W. C's.						
Abram	33	6	..	16	..	..	..	40	23	200	..	530	825	24	157	662	52	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. A. O. Bentham, £90		
Accrington (B.)	Yes	..	Yes	41	14	Yes	..	168	39	147	..	28	28	977	5000	1271	1697	9245	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. A. Greenhalgh, £150		
Addington	..	..	..	14	..	..	..	24	1	23	..	467	467	5	36	444	374	30	7	..	..	..	..	..	..	..	..	..	..	..	..	M.O. W. C. Rigby, £50		
Ashton-in-Makerfield	..	..	..	40	6	When required	..	223	247	1390	..	2	2	3748	2950	498	135	2	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. H. Winstanley, £167		
Ashton-under-Lyne (B.)	*Yes	..	..	2	91	Yes	..	431	49	867	..	..	..	12	360	3103	5946	8021	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. J. W. Talbot, £30	
Aspull	..	..	..	19	..	..	..	127	..	127	..	683	683	6	60	489	395	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. L. Cooke, £25	
Atherton	Yes	..	..	21	32	..	..	47	62	419	..	55	84	5	1134	2290	1405	1415	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. J. Marsh, £102	
Audenshaw	..	..	..	11	8	..	..	190	..	183	..	15	23	52	213	642	1363	1411	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. J. K. Jepson, £25	
Bacup (B.)	..	..	..	119	68	When required	..	274	41	306	..	12	12	2163	157	1245	4538	448	7	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. D. H. Cleetham (4)	
Barrowford	†	3	..	34	..	..	..	2	1	69	..	31	31	20	777	174	297	831	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. J. P. Brown, £155	
Billings	..	..	..	56	..	..	..	12	20	23	..	406	602	10	63	53	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. F. de B. Pim, £55	
Blackrod	..	..	..	35	..	..	..	20	..	20	..	371	371	23	264	365	342	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. F. Sutcliffe, £109 4s. 6d.	
Brierfield	..	10	..	9	1	..	..	51	1	51	..	30	41	50	1580	413	440	1693	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. R. O. Mathon, £90
Cardforth	..	..	..	14	1	..	..	..	..	..	..	235	235	3	532	476	..	53	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. J. R. Powell, £90	
Chadderton	Yes	..	..	51	27	Yes	..	529	11	491	..	..	..	1922	Not known	1532	..	3153	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. J. W. Unsworth, £45
Chorley (B.)	Yes	..	Yes	31	2	..	..	1281	75	1350	..	59	68	13	2	7079	Not known	6886	989	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. J. R. Orrell, £47
Church	..	4	..	5	..	..	..	147	..	140	..	9	9	154	791	261	280	1498	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. J. S. Wilson, £65
Clayton-le-Moors	..	..	..	9	..	..	..	15	..	147	..	..	..	29	1726	86	335	1946	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. B. Halsehead, £141 4s. 6d.
Clitheroe (B.)	..	..	Yes	30	..	..	..	93	6	127	One—To pay costs.	5	8	1018	14	917	2900	1532	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. E. S. Jackson, £20
Colne (B.)	Yes	..	Yes	94	6	Occasionally	..	362	50	344	..	2	2	388	4396	1314	947	4482	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. J. A. Harris, £160

\* Closed at present. † Destructor at Nelson (B) used for slaughter-house refuse.

(a) Away on military duty.  
 (b) No claim for repayment of salary.  
 The salaries given in this table are the amounts agreed by the Ministry of Health (including the approved War Bonus in cases on the last claim for repayment.

















DISTRICT.	Refuse Destructor provided.	CANAL BOATS.		DAIRIES, COWSHEDS, &C.				NUISANCES.			CLOSET ACCOMMODATION.										Cennell's Contribution towards cost of Conversion.	SMOKE OBSERVATIONS.		MEDICAL OFFICERS OF HEALTH AND INSPECTOR OF NUISANCES, WITH SALARIES.									
		No. Inspected.	No. of Infringements.	Public Abattoirs provided.	No. of Cowkeepers.	No. of Dairywomen or Parvays.	Any arrangement for Veterinary Inspection of Cows.	Samples of Milk examined for Tubercle.	Notices served.		Legal Proceedings and Result.	Privy Middens.		No. of Pail Closets.	No. of Ashpits (excluding middens).	No. of Fresh Water Closets.	No. of Portable Receptacles for refuse.	Conversions during 1919.					Number.		Legal Proceedings and Result.								
									Informal.	Statutory.		No. of Middens.	No. of Closets.					Not known.	Privy Closets to Fresh W. C's.	Privy Closets to Waste W. C's.		Privy Closets to Ashpits.				Pail Closets to Fresh W. C's.	Pail Closets to Waste W. C's.	Fresh W. C's. to Fresh W. C's.					
Maccombe (B.)	Yes	..	..	..	17	47	Yes	..	54	..	54	..	190	200	..	4000	4318	Not known	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. J. W. Waterson (5) £50	
Mossley (B.)	..	..	..	..	19	..	..	..	98	..	83	..	3	3	2873	1033	282	358	152	..	..	..	..	..	..	..	..	..	..	..	I. T. B. Lamb (8) £241		
Nelson (B.)	Yes	..	..	..	36	48	Yes	..	57	15	520	..	..	..	4	7320	2273	2530	8391	..	..	..	..	..	..	..	..	..	..	..	M.O. J. Healey, £100		
Newton-in-Makerfield	..	..	..	Yes	18	14	..	..	207	71	431	..	297	444	2710	94	786	3244	30	5	..	1	5	..	..	..	..	..	..	..	I. R. H. Buckley (8)		
Norden	..	..	..	..	36	..	..	..	10	4	14	..	50	102	688	186	175	241	12	..	..	..	..	..	..	..	..	..	..	..	M.O. A. P. Miller, £150		
Ormskirk	Yes	..	..	..	4	5	..	6	40	9	44	..	363	448	44	165	988	575	7	..	..	..	..	..	..	..	..	..	..	..	I. J. T. Nutter, £225		
Orrell	..	..	..	..	15	7	..	..	26	13	133	..	455	939	..	6	376	314	8	1	..	..	..	..	..	..	..	..	..	..	M.O. H. E. Watkins, £150		
Oswaldtwistle	..	..	..	Yes	70	2	..	..	116	35	280	..	193	324	395	1484	341	235	2454	1	3	..	..	..	..	..	..	..	..	..	..	I. H. Ashcroft, £250	
Padiham	Yes	..	..	..	10	22	..	..	201	11	451	..	..	..	1124	27	490	2922	1559	..	..	..	..	..	..	..	..	..	..	..	..	M.O. W. H. Bateman, £40	
Poulton-le-Fylde	..	..	..	..	18	..	..	..	7	..	13	..	98	98	5	216	531	350	11	..	..	..	..	..	..	..	..	..	..	..	..	I. J. W. Sunderland, £100	
Preesall	..	..	..	..	36	4	..	..	11	..	11	..	268	268	126	32	93	32	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. G. E. Scholesfield, £50	
Preesall	..	..	..	..	3	9	..	..	104	..	89	..	610	815	14	234	1011	543	..	4	..	..	..	..	..	..	..	..	..	..	..	I. H. W. C. Chadwick, £150	
Preesall	..	..	..	..	12	14	..	..	79	6	184	..	139	292	104	564	4271	2748	223	9	..	2	..	..	..	..	..	..	..	..	..	M.O. K. Fraser, £75	
Radcliffe	Yes	..	..	..	20	26	..	..	201	52	987	..	1039	1898	260	919	2579	1801	1673	17	..	..	..	..	..	..	..	..	..	..	..	..	I. J. Farinwood, £75
Rainford	..	..	..	..	22	1	..	..	13	..	13	..	700	680	8	8	46	1	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. A. E. Towley, £120	
Ramsbottom	Yes	..	..	..	60	1	..	..	64	5	478	..	186	360	616	918	1379	900	1464	7	..	..	..	..	..	..	..	..	..	..	..	..	I. A. Ashworth, £200
Rawtenstall (B.)	*Yes	..	..	..	250	1	..	..	245	4	271	..	50	50	555	680	2163	4970	3858	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. N. R. Dharmavir, £14 15s
Rishon	..	..	..	..	30	1	When required	..	47	1	48	..	34	26	24	1011	235	92	1992	..	..	..	..	..	..	..	..	..	..	..	..	..	I. E. Shaw (B. Hatcliffe, to 30th June, 1919); £100
Royton	Yes	..	..	..	23	3	Yes	..	161	34	335	..	2	2	2600	610	697	1935	946	9	..	..	..	..	..	..	..	..	..	..	..	..	M.O. W. Riddell, £23
St. Anne-on-the-Sea	Yes	..	..	Yes	19	6	Yes	5	255	..	285	..	..	19	48	..	4098	2406	21	..	..	..	..	..	..	..	..	..	..	..	..	..	I. J. B. Moss, £50

(a) Away on military duty.  
(b) No claim for repayment of salary.

The salaries given in this table are the amounts approved by the Ministry of Health (including the approved War bonus) as shown on the last claim for repayment.

M.O. J. W. Waterson (5) £50  
I. T. B. Lamb (8) £241  
M.O. J. Healey, £100  
I. R. H. Buckley (8)  
M.O. A. P. Miller, £150  
I. J. T. Nutter, £225  
M.O. H. E. Watkins, £150  
I. H. Ashcroft, £250  
M.O. W. H. Bateman, £40  
I. J. W. Sunderland, £100  
M.O. G. E. Scholesfield, £50  
I. H. W. C. Chadwick, £150  
M.O. K. Fraser, £75  
I. J. Farinwood, £75  
M.O. A. E. Towley, £120  
I. A. Ashworth, £200  
M.O. N. R. Dharmavir, £14 15s  
I. E. Shaw (B. Hatcliffe, to 30th June, 1919); £100  
M.O. W. Riddell, £23  
I. J. B. Moss, £50  
M.O. D. R. Pike (M. B. Gooding, to 30th June, 1919); £40  
I. G. W. Proffit, £58  
M.O. S. M. Green, £83  
I. R. Norris, £182  
M.O. F. Stephenson, £130  
I. W. Windsor, £200  
M.O. D. P. M. Farguherson, £100  
I. W. Holt, £200  
M.O. F. Prosser, £30  
I. R. Smith (5)  
M.O. H. Lester, £80  
I. G. A. Shaw, £234  
M.O. J. E. Helm, £240  
I. W. E. Hoyle, £200  
M.O. J. Barr, £66 15s. 6d.  
I. J. Corradi, £113  
M.O. R. Young, £120  
I. J. Butterfield, £208  
M.O. J. Tennant, £100  
I. W. E. Procter, £270





District.	Refuse Destroyers provided.	CANAL BOATS.		Public Abattoirs provided.	DAIRIES, COWSHEDS, &C.				NUIJANCES.				CLOSET ACCOMMODATION.										Counsell's Contribution towards cost of Conversion.	SMOKE OBSERVATIONS.		MEDICAL OFFICER OF HEALTH AND INSPECTOR OF NUISANCES, WITH SALARIES.  (a) Away on military duty. (b) No claim for repayment of salary.  The salaries given in this table are the amounts approved by the Ministry of Health (including the approved War Bonus) as shown on the last claim for repayment.									
		No. Inspected.	No. of Infringements.		No. of Cowkeepers.	No. of Dairyman or Farmyard.	Any arrangement for Veterinary Inspection of Cows.	Samples of Milk examined for Tubercle.	Notices served.		Nuisances abated.	Legal Proceedings and Result.	Privy Middens.		No. of Full Closets.	No. of Lavatories (excluding middens).	No. of Fresh Water Closets.	Conversions during 1919.				Number.		Legal Proceedings and Result.											
									Informal.	Statutory.			No. of Middens.	No. of Closets.				No. of Portable Receptacles for refuse.	No. of Waste Water Closets.	Privy Closets to Fresh W. C's.	Privy Closets to Waste W. C's.				Privy Closets to Public Closets.		Full Closets to Fresh W. C's.	Full Closets to Waste W. C's.	Waste W. C's to Fresh W. C's.						
Skelmersdale	..	..	..	..	5	1	..	..	58	..	58	..	713	1131	21	713	231	..	..	12	..	..	..	..	..	..	..	..	..	..	..	M.O. V. O'Reilly, £55 I. E. Huntington, £73 6s.			
Standish-with-Langtree	..	..	..	..	27	2	..	..	80	..	44	..	479	985	26	53	271	30	1	..	..	..	..	..	..	..	..	..	..	..	M.O. G. H. Ormsby, £56 I. A. Cough, £100				
Stretford	Yes	..	..	..	8	140	..	4	458	69	2355	..	1	1	182	1691	13645	7556	331	..	..	..	..	..	..	..	..	..	..	..	..	M.O. W. J. Hodop, £245 I. E. Nuttall, £420			
Swinton and Pendlebury	Yes	..	..	..	17	24	..	..	384	362	565	..	769	1359	67	301	5233	4748	79	..	..	..	..	..	..	..	..	..	..	..	..	M.O. W. S. Stalker, £300 I. A. Bloskley, £200			
Thornton	..	..	..	..	50	30	..	..	23	15	38	..	76	76	285	184	805	860	21	..	..	1	6	..	..	..	..	..	..	..	..	..	M.O. F. S. Rhodes, £190 H. Panton, £190		
Tottington	..	..	..	..	51	..	..	..	..	7	113	..	532	1064	194	199	471	302	134	2	..	..	..	..	..	..	..	..	..	..	..	..	M.O. G. Bailey, £60 I. L. Kenyon, £168		
Trawden	..	..	..	..	85	..	When required	..	3	..	3	..	..	..	316	325	112	62	233	..	..	5	2	5	..	..	..	..	..	..	..	..	M.O. G. Skew, £20 I. J. H. Tatham, £32		
Turton	..	..	..	..	169	2	..	..	123	6	113	..	816	816	78	816	772	148	1134	6	..	..	..	..	..	..	..	..	..	..	..	..	M.O. J. Robinson, £80 I. A. Morrison, £225		
Tyldesley-with-Shakerley	..	..	..	..	21	6	..	..	190	17	247	..	207	485	9	933	2073	670	582	5	..	..	..	..	..	..	..	..	..	..	..	..	M.O. A. J. Lewis, (B. Wake- more to 21st Aug. 1919) £100		
Ulverston	..	..	..	..	19	..	When required	..	53	6	61	..	108	217	4	600	2011	1480	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	I. J. Smith, £224 18s. M.O. G. H. Patterson, £130	
Upholland	..	..	..	..	41	4	..	..	17	22	67	..	532	820	25	90	197	9	..	12	..	..	..	..	..	..	..	..	..	..	..	..	..	C. T. Hague, £120 I. J. Heath, £140	
Urton	..	..	..	..	7	11	Yes	..	19	20	55	..	47	68	..	79	1954	1809	77	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. G. E. Fryer, £60 I. A. Hunt (B)	
Walton-le-Dale	..	..	..	..	45	1	..	..	568	30	200	..	130	259	961	822	1270	1680	327	16	..	2	6	..	..	..	..	..	..	..	..	..	..	M.O. C. J. Trimble, £200 I. N. Baron, £156	
Wardle	..	..	..	..	51	..	..	..	19	12	31	1 Conviction	120	205	238	..	331	356	108	..	..	9	..	..	..	..	..	..	..	..	..	..	..	M.O. G. MacCall, £40 I. J. D. Hurst, £140	
Waterloo-with-Seaforth	..	..	..	..	19	..	Yes	2	710	286	2097	29 Ashbins supplied by Council in default of compliance with notices	..	..	10	1184	10112	4812	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. V. J. Glover, £130 I. J. H. Cannell, £300
Westhoughton	..	..	..	..	84	..	..	..	77	5	82	..	2142	2142	2	294	836	345	117	..	..	..	..	..	..	..	..	..	..	..	..	..	..	M.O. W. H. Leigh, £80 I. F. J. A. Green, £240	
Whitefield	..	..	..	..	9	17	Yes	1	43	1	124	..	401	600	68	214	726	435	164	4	..	..	1	..	..	..	..	..	..	..	..	..	..	M.O. A. J. Young, £60 I. C. Whitley (E. Shaw to 31st July, 1919) £203	
Whitworth	..	..	..	..	20	40	..	..	24	..	214	..	..	..	1444	649	276	682	300	..	..	..	21	..	..	..	..	..	..	..	..	..	..	M.O. T. J. L. Forbes, £80 I. J. J. Cordingley, £195	













**Nuisances.**—The following statement, collated from the local health reports, refers to the work carried out in regard to the suppression of nuisances :—

	1919.	1918.
Number of nuisances abated ...	36,957	24,008
„ notices served ...	24,252	15,135

In 1917, nuisances abated amounted to 27,144, 33,180 in 1916, and 43,878 in 1915.

**Closet Accommodation.**—The figures below, which have been taken from district health reports, show approximately the number of each type of closet accommodation in the County area :—

Privy middens ...	51,933
„ closets ...	70,536
Pail closets ...	49,607
Water closets ...	198,985
Waste-water closets ...	90,166
Ashpits (excluding middens) ...	84,441
Portable receptacles ...	162,779

Conversions of privy closets and pail closets during 1919 and the four preceding years are shown below :—

	1919.	1918.	1917.	1916.	1915.
Privies converted to water closets ...	518	137	324	800	2856
Privies converted to pail closets ...	57	18	76	86	219
Pail closets converted to water closets ...	194	42	148	272	759

Table “ I,” here inserted, shows the position as regards closet accommodation of each sanitary district.

**Canal Boats.**—The number of canal boats inspected numbered 377 in 23 districts. Thirty-eight infringements of the Acts were noted.

**Slaughter-houses. — Public Abattoirs.**—The position in regard to the slaughtering of cattle remains practically



the same as last year. Owing to the Government requirement that cattle should be killed, as far as practicable, in a central slaughter-house, inspection of meat has been greatly facilitated. Many district Medical Officers of Health state that it is highly desirable that such centralised slaughtering should continue. During the war period it has been clearly demonstrated that slaughtering in small unsuitable premises, often situated in unsatisfactory surroundings, at the rear of butchers' shops, need not be revived.

**PUBLIC ABATTOIRS.**—There are public abattoirs in 12 districts, viz., the Boroughs of Accrington, Chorley, Clitheroe, Colne, Darwen and Lancaster, and the urban districts of Fleetwood, Great Harwood, Lytham, Newton-in-Makerfield, Oswaldtwistle and St. Annes-on-the-Sea. The erection of a public abattoir is stated to be "the chief sanitary requirement" of Denton, Haslingden (B.), Heywood (B.), Horwich, Morecambe (B.), Nelson (B.), and Withnell.

**Food Inspection.**—The following summary shows approximately the amount of unsound or diseased food seized and destroyed in the County area during the year under report:—

On account of tuberculosis.—1,321 carcasses, or parts of carcasses.

For other reasons.—36 carcasses of cows, 61 sheep, 11 pigs, 11 calves, 436 rabbits, 39 head of poultry, beef 6,176 lbs., veal 61 lbs., mutton 10,184 lbs., offal 11,793 lbs., pork 21 lbs., ham and bacon 6,451 lbs., fish 33,032 lbs., fruit and vegetables 7,800 lbs., eggs 4,048, tins of milk 265, and miscellaneous food 18,597 lbs.

In eight instances legal proceedings were instituted.

Little is said in the district health reports as to the action taken (if any) for securing a standard of suitability and cleanliness of premises where food is prepared or kept for sale for human consumption. The need of some form of



effective control over the storage and manufacture of food is obvious.

**Dairies, Cowsheds, and Milkshops.**—Table "I," inserted opposite page lxxi., gives particulars regarding the number of cowkeepers, dairymen, and purveyors of milk in each sanitary district. The approximate totals for the whole Administrative County are :—

Number of cowkeepers	...	...	...	...	5,805
„ dairymen or purveyors of milk	...	...	...	...	1,439

Regulations under the Dairies, Cowsheds, and Milkshops Order, 1885, have been adopted in every County district, except Little Crosby where there are only two cowkeepers.

Reference is made in many reports to the unsatisfactory condition of cowsheds in respect of lighting and ventilation, the grooming of cattle, and general cleanliness.

Arrangements for the examination of cattle by veterinary surgeons have been made in 32 districts.

**Bacteriological Examination of Milk.**—From five districts 18 samples of milk were submitted for bacteriological examination; in two instances tubercle bacilli were found to be present.

**Smoke Observations.**—These observations in 1919 numbered 1,039, against 860, 1,264, 1,711, 1,965, and 2,857 in the preceding five years. Table "I," page lxxi., shows the districts in which the observations were taken.

**Scavenging and Refuse Removal.**—The County report for the year 1914 gave brief details of the arrangements existing in each district for scavenging and refuse removal. Since then very few developments have taken place. The number of privy middens and privy closets is shown on page lxxi. In certain of the rural districts, where the removal of ashpit contents usually devolves on the occupiers of the houses, the Councils are urged by the Medical Officers of Health to institute some form of public scavenging.



**REFUSE DESTRUCTORS.**—Destructors have been provided in 30 districts, which are shown on Table “ I.” The provision of refuse destructors is strongly urged by the Medical Officers of Health of Denton, Great Crosby, Newton-in-Makerfield, Norden, Orrell, and Rishton.

**House Drainage, Sewerage, and Sewage Disposal.**—A statement as to the character and sufficiency of the arrangements for the drainage, sewerage, and sewage disposal in all parts of the district is required by the Ministry of Health’s memorandum as to contents of district health reports to be included in each report.

In this County a large area comes under the jurisdiction of the Mersey and Irwell and the Ribble Watershed Committees as regards the means of sewage treatment and disposal.

The necessity of providing additional sewers, or extending the existing systems, is referred to in many reports; and probably the urgency of this provision will be accentuated in those districts where large housing schemes are contemplated. Reference is also made in certain districts to the polluted condition of streams.

The following areas or townships are reported by district Medical Officers of Health as being without proper drainage systems :—

Urban Districts.	Area Without Proper Drainage System.
Accrington (B.)	... Higher Baxenden.
Aspull	... Hindley Mill—4 cottages.
Atherton	... Small portions of outlying district.
Audenshaw...	... Hanover Street South and Stelfox Lane.
Brierfield	... Marsden Heights.
Chadderton	... About 600 acres in the outlying districts.
Chorley (B.)	... Outlying farms—“ not possible to connect.”
Clitheroe (B.)	... Outlying agricultural land, beyond reach of present sewerage system.
Croston	... Drinkhouse Lane and Grape Lane.

Urban Districts.	Area Without Proper Drainage System.
Dalton-in-Furness...	Outlying dwellings.
Droylsden ...	... Portion of Greenside.
Eccles (B.) ...	... Eight houses at Westwoods and three at Barton Moss end of borough.
Failsworth ...	... A few isolated cottages in the fields.
Formby ...	... Freshfield and a part of Formby.
Great Crosby	... A small area.
Haslingden (B.)	... A few isolated places.
Haydock ...	... Two small areas containing 25 and 43 houses respectively.
Hindley ...	... Platt Bridge.
Horwich ...	... Factory Hill, Foxholes, &c.
Litherland ...	... About 50 per cent. agricultural land.
Little Hulton	... A number of areas in different parts of the district.
Little Lever	... Dove Bank and Leadbeater Fold.
Middleton (B.)	... Birch End and Bowlee.
Milnrow ...	... Burnedge.
Newton-in-Makerfield ...	... Parts of agricultural areas.
Norden ...	... Lanehead and Red Lumb (two small hamlets).
Orrell ...	... A few houses in Brook Lane and Ox-house Road.
Oswaldtwistle	... Knuzden and Cross Edge.
Poulton-le-Fylde	... Little Poulton.
Prestwich ...	... Simister Lane area.
Radcliffe ...	... About 93 houses in Starling district.
Royton ...	... Booth Hill Lane, Thorp, and Thorp Clough.
St. Annes-on-the-Sea ...	... Rural parts drain into cesspools.
Skelmersdale	... Small area which new sewerage scheme will include.



Urban Districts.	Area Without Proper Drainage System.
Standish-with-Lang- tree ...	... Only scattered houses.
Swinton and Pendle- bury ...	... Forty houses at Langley Road, Pendle- bury.
Thornton ...	... Part of East Ward.
Tottington	... Hawkshaw and Greenmount district.
Tyldesley-with- Shakerley ...	... Thirty houses at Parr Brow.
Upholland ...	... Roby Mill.
Urmston ...	... Several isolated farms.
Walton-le-Dale	... Outlying districts.
Whitefield ...	... Park Lane—new scheme sanctioned by Ministry of Health.
Widnes (B.)	... Rural area on the north—drainage in- sufficient for w.c. system.
Withnell ...	... Ollerton Terrace.

## Rural Districts.

Barton-upon-Irwell.	Portions of Davyhulme, Flixton, and Clifton.
Burnley ...	... Higham, Old Laund Booth, Foulridge (detached), and Cliviger.
Bury ...	... The more rural parts of all the townships.
Chorley ...	... Several townships.
Clitheroe ...	... Aighton, Bailey and Chaigley, Little Bowland, Little Mitton, Chipping, Leagram, Pendleton, Downham, and Hurst Green.
Fylde ...	... Treales, Wharles, and part of Warton.
Garstang ...	... All townships except six.
Lancaster ...	... Overton, Priest Hutton, Silverdale, Yea- land Conyers, and Yealand Redmayne.
Limehurst ...	... Alt, Hartshead, Little Moss, and Wood- houses.

Rural Districts.	Area Without Proper Drainage System.
Lunesdale ...	... Over Kellet.
Preston ...	... Penwortham, Longton, Little Hoole, Goosnargh, Whittingham, Woodplumpton, and Dutton.
Sefton ...	... Certain areas all over district.
Warrington ...	... Poulton-with-Fearnhead.
West Lancashire ...	... All except Aughton and parts of Bickerstaffe and Tarleton.
Whiston ...	... Cronton, Tarbock, Knowsley, Speke, and parts of others.
Wigan ...	... Wrightington, Shevington, Parbold, Dalton, Worthington, and part of Haigh.

**Water Supplies.**—Very few developments are reported. Deficient or unsatisfactory water supplies are reported in a number of districts, principally rural areas, for instance:—Clitheroe (R.), the smaller hamlets and many farms have a supply which is neither good nor accessible; Chorley (R.), there has been a great shortage of water in Coppull for some years; Fylde (R.), insufficient supply at Treales and Wharles; Preston (R.), inadequate supply to the townships of Woodplumpton, Lea, and Cottam; Whiston (R.), outlying parts have to rely on surface wells liable to serious contamination.

In July, 1919, a report on the presence of lead in the public water supplies of Standish-with-Langtree, and the township of Shevington in the Wigan rural district, was presented by the County Medical Officer of Health to the County Public Health and Housing Committee, and certain recommendations were forwarded to the local Health Authorities concerned.

**WATER POWER RESOURCES COMMITTEE.**—In October, 1919, the terms of reference of a Committee with the above title, which had been appointed in June, 1918, to examine and report upon the Water Power Resources of the United Kingdom, were extended to include “what steps should be



taken to ensure that the water resources of the country are properly conserved and fully and systematically used for all purposes."

In their second Interim Report (June, 1920) the Committee make certain recommendations of interest to Public Health Authorities, for instance :—

There should be established a controlling Water Commission having jurisdiction over England and Wales, and upon whom should be conferred certain statutory powers and duties, among the principal of which should be :—

The compilation of proper records of the water resources and present and future water requirements of the country ;

The allocation of these water resources in the general interests of the community, and powers to re-adjust existing allocations of water where hardship or anomalies are clearly shown to exist ;

To consider the development of rivers as a whole from source to mouth from the point of view of water interests, and when necessary to initiate legislation for securing such development, &c.

**Shops Acts, 1912 and 1913.**—The Order of H.M. Secretary of State, under the Defence of the Realm (Consolidation) Regulations, which fixed the hours of closing of shops, continued in force throughout the year 1919.

Three applications for Orders under the Shops Act, 1912, were dealt with by the County Inspector (Mr. J. E. Gee, of the County Public Health Department). In two instances Half-holiday Closing Orders were made by the County Council, but were not confirmed by the Secretary of State until June, 1920. In the other case it was not necessary to make an order, as the advantages sought under the application were obtained under the existing Defence of the Realm Regulations.

Sixteen infringements of the Shops Acts, or Orders made thereunder, were dealt with during the year; in each instance cautions were administered.

**Midwives Acts 1902 and 1918.**—The number of certified midwives on the Register of the Administrative County on the 31st December, 1919, was 687.

During the year the names of 50 women were removed from the Register for the following reasons:—death 12, left County area 10, ceased to practise 28. The names of 68 midwives commencing to practise were added.

The tabular statement below shows the qualifications of the women on the Register:—

Obstetrical Society of London	...	...	33
Coombe Lying-in Hospital and Guinness' Dispensary, Dublin	...	...	2
Rotunda Hospital, Dublin	...	...	1
Liverpool Ladies' Charity and Lying-in Hospital	...	...	20
St. Mary's Hospitals, Manchester	...	...	27
Certificate (by examination) of Central Midwives Board	...	...	308
In <i>bonâ-fide</i> practice, July, 1901	...	...	296
Total	...	...	687

Of these, 633 were practising, while 54 had temporarily ceased to act.

In the year 1905 there were 876 of the *bonâ-fide* type of midwife on the County Register, 83 per cent. of the total, but these have now been reduced to 296, or 43 per cent.

The number of certified midwives, with addresses within the Administrative County area on the Official Roll of the Central Midwives Board, is 1,928.



RECORDS FROM MIDWIVES.—The statement below shows the number of records of sending for medical help received during 1919, the number of still-births reported, and the number of deaths of mother or child before the attendance of a medical practitioner:—

MEDICAL HELP RECORDS:—

(1) In all cases in which a woman during pregnancy, labour, or lying-in, appears to be dying or is dead ... .. —

(2) Pregnancy—

Deformity or stunted growth	...	...	1
Loss of blood	...	...	34
Abortion or threatened abortion	...	...	139
Excessive sickness	...	...	4
Puffiness of hands or face	...	...	3
Fits or convulsions	...	...	1
Dangerous varicose veins	...	...	5
Purulent discharge	...	...	4
Sores of the genitals	...	...	—
Other abnormalities or complications	...	...	38

(3) Labour—

Fits or convulsions	...	...	12
A purulent discharge	...	...	2
Sores of the genitals	...	...	—
A malpresentation	...	...	174
Presentation other than the uncomplicated head or breech	...	...	
Where no presentation can be made out	...	...	2
Where there is excessive bleeding	...	...	56
Where two hours after the birth of the child the placenta and membranes have not been completely expelled	...	...	112
In cases of serious rupture of the perinaeum or of other injuries of the soft parts	...	...	487
Other complications, including obstructed labour, uterine inertia, or requiring instrumental assistance	...	...	853

## (4) Lying-in—

Fits and convulsions	...	...	...	—
Abdominal swelling and tenderness	...	...	...	2
Offensive lochia, if persistent	...	...	...	—
Rigor with raised temperature	...	...	...	6
Rise of temperature above 100·4°F. with quickening of the pulse for more than 24 hours	...	...	...	105
Unusual swelling of the breasts with local tenderness or pain	...	...	...	1
Secondary post-partum hæmorrhage	...	...	...	8
White leg	...	...	...	—
Unsatisfactory progress or complications...	...	...	...	36

## (5) The Child—

Injuries received during birth	...	...	...	6
Any malformation or deformity endangering the child's life	...	...	...	21
Dangerous feebleness	...	...	...	232
Inflammation of, or discharge from, the eyes, however slight	...	...	...	299
Serious skin eruptions, especially those marked by the formation of watery blisters	...	...	...	9
Inflammation about, or hæmorrhage from, the navel	...	...	...	2
Complications	...	...	...	125
				<hr/>
Total	...	...	...	2779
				<hr/> <hr/>

## STILL-BIRTHS :—

Males	...	...	...	196
Females	...	...	...	185
				<hr/>
Total	...	...	...	381
				<hr/> <hr/>



DEATHS OF MOTHER OR CHILD BEFORE ATTENDANCE OF A  
MEDICAL PRACTITIONER :—

Mother	...	...	...	...	...	6
Child	...	...	...	...	...	52
Total						58

The following table compares the number of Records, &c., received from certified midwives during the year 1919, with preceding years :—

	1919.	1918.	1917.	1916.	1915.
Records of sending for medical help ...	2779	2078	2271	2502	239
Still-births	381	305	361	397	39
Deaths of Mother or Child before the attendance of a medical practitioner ...	58	45	42	48	3

PUERPERAL FEVER.—The number of cases of “ puerperal fever ” reported during 1919, in connection with the administration of the Midwives Act, was 75.\*

\* After the end of the year, in the preparation of the Annual Report statistics, 3 additional cases were found, making a total of 78, as shown on notification table, page lxi.

The table below contrasts 1919 with the preceding four years :—

	Cases.	Deaths.	Case Mortality	Attack Rate per 1,000 births.
1919.....	75	*33	42·8	2·60
1918.....	49	†22	44·0	1·80
1917.....	59	17	28·8	2·07
1916.....	94	‡26	27·3	2·87
1915.....	93	31	33·3	2·68

\* Includes 2 deaths of cases notified in previous year.

† Includes death of a case not notified.

‡ Includes death of a case notified in previous year.

The preceding mortality totals do not coincide with the above deaths classified by the Registrar-General under the term "puerperal fever," which in 1919 aggregated 57. This apparent discrepancy is due to the fact that the Registrar-General in his statistics assigns to the term "puerperal fever" certain forms of disease of the puerperal state, which are not usually reported by medical practitioners under the Notification Act.

In the following statement, the notified cases of puerperal fever are classified, distinguishing those in which midwives were concerned :—

	1919.			1918.		
	Cases.	Deaths.	Mortality rate per cent.	Cases.	Deaths.	Mortality rate per cent.
Cases attended at child-birth solely by certified midwives .....	37	.. *16	.. 42·1	22	.. 9	.. 40·9
Cases in which midwives acted as nurses under the supervision of medical practitioners .....	14	.. 6	.. 42·8	13	.. 6	.. 46·1
Cases in which certified midwives were not in attendance .....	24	.. *11	.. 44·0	14	.. †7	.. 46·6

\* Includes death of case notified in previous year.

† Includes death of a case not notified.

The cases which occurred in the practice of midwives were carefully investigated. In addition, enquiries were made into 111 cases of rise of temperature or rigor.

**CHARGES OF NEGLIGENCE, MISCONDUCT, &C.**—Fifty-one charges of negligence or misconduct were preferred against midwives during the year, against 31 in the previous year. The action taken is shown in the table on the following page. In addition, a number of minor breaches of the Rules came under notice and were suitably dealt with.



	Total No. of charges.	Result of action taken.			
		Struck off the Roll.	Sur- rendered Certifi- cate and name removed from Roll.	Severely cen- sured.	Cau- tioned.
Puerperal fever cases ...	11	...	...	2	9
Ophthalmia neonatorum cases... ..	37	...	...	5	32
Other offences ... ..	3	...	...	2	1

OPHTHALMIA NEONATORUM.—By notifications under the Public Health (Ophthalmia Neonatorum) Regulations, and by medical help records forwarded by midwives, 447 cases of ophthalmia neonatorum, or inflammation of the eyes, came under notice, against 317 cases in the previous year. All cases occurring in the practice of midwives were investigated. In 37 instances, as shown above, the midwives had been so negligent as to necessitate a report of their conduct to the Midwives Act Committee.

MIDWIVES ACT, 1918.—This Act came into operation on the 1st January, 1919.

Section 14 provides for the payment by the Local Supervising Authority of fees (according to a scale fixed by the Local Government Board) of medical practitioners summoned in cases of emergency by certified midwives. The Local Supervising Authority is empowered to recover such fee from the patient, or her husband, or other person liable to maintain her, unless it is shown that such person is unable by reason of poverty to pay such fee.

Seventy-five such claims for payment were received from medical practitioners during the year, the amount involved being £136 8s. 6d. A portion of this amount has been recovered.

By Section 7 the Local Supervising Authority is required to supply to certified midwives all forms and books which they must fill up or use in their practice, and the whole of the midwives practising in the County area were supplied by the County Public Health Department with the following :—

Register of cases.

Daily record of pulse and temperature.

Forms of sending for medical help.

Forms of notification of still-birth.

“ “ death of mother or child.

“ “ having laid out a dead body.

“ “ liability to be a source of infection.

“ “ whenever it is proposed to substitute artificial feeding for breast feeding.

A supply of envelopes to be used in sending the copy records to the County Offices, Preston.

At the end of the year the midwives were refunded the sum incurred by them in postage.

Under Section 6, two applications from midwives for compensation for loss of practice, owing to suspension in order to prevent the spread of infection, were dealt with.

**TRAINING OF MIDWIVES.**—On the 30th September, 1919, the Ministry of Health issued to all Supervising Authorities under the Midwives Acts a circular (No. 10) with reference to the training of midwives and grants in aid of such training. These grants will be made under “The Board of Education (Midwives’ Training) Regulations, 1919,” in aid of the training



of intending and practising midwives at recognised residential Institutions.

**Sale of Food and Drugs Acts.**—The County Analyst (Mr. Collingwood Williams, B.Sc., F.I.C.), in his report for the year 1919 to the Public Health and Housing Committee, states that 4,848 samples have been submitted for analysis during the year, of which 4,530 were from the County Police, 317 from Local Authorities, and 1 from a private purchaser.

Of the samples submitted by the Police, 562 were adulterated or not up to standard, being 12·40 per cent. of the number taken, as compared with 13·29 per cent. in 1918. The percentage of adulterated samples varies from 6·3 per cent. in the Blackburn Higher Division to 21·4 per cent. in the Lonsdale South Division.

Of the samples submitted by Local Authorities, 46, or 14·51 per cent. were reported against.

The greater proportion of the above cases were of too slight a character to justify legal proceedings, the percentage of serious cases being only 5·16 per cent., as compared with 6·03 per cent. in 1918.

**MILK.**—Three thousand and fourteen samples (62·2 per cent. of the total samples taken) were purchased as milk or skimmed milk, 1 as “diluted milk,” and 1 was described as “swill.”

The number of adulterated, deficient, or dirty samples was 508, or 16·85 per cent., as compared with 16·05 per cent. in 1918.

The character of the adulteration in the condemned samples was as follows:—

Nature of Adulteration.	Percentage of samples analysed.	
	1919.	1918.
Added water exceeding 4% ...	2.55	4.10
Do. less than 4% ...	3.55	4.04
	6.10	8.14
Fat deficiency exceeding 10% ...	2.32	1.62
Do. less than 10 % ...	3.81	2.50
	6.13	4.12
Cowdung exceeding 5 parts by ...	1.89	1.31
volume per 100,000		
Do. exceeding 2 parts, but ...	4.21	3.40
not exceeding 5		
	6.10	4.71
Dirt other than cowdung ...	0.06	0.03
Formaldehyde preservative ...	0.13	0.03

The seriously watered milks show a large decrease in numbers as compared with 1918, which was, however, an exceptionally bad year for watered milks.

44 samples contained from 4 to 10% added water,  
30 samples contained from 10 to 20% added water,  
and 3 samples contained 33, 33, and 38% added water  
respectively.

The more serious cases of fat deficiency show an increase as compared with 1918, which was, however, one of the best years in recent times in this respect.

43 samples showed a deficiency from 10 to 15%,  
20 samples showed a deficiency from 15 to 30%,  
6 samples showed a deficiency from 30 to 45%,  
and 1 sample showed a deficiency of 88%.

Both as regards added water and fat deficiency, the present year's figures are about the average of the past eight years.



All the milk samples have been examined for cowdung and other dirt. The total number of samples contaminated with cowdung is greater than in 1918. This applies particularly to amounts under 7 parts by volume per 100,000, samples dirtier than this being distinctly less frequent than was the case last year. The very dirty samples met with some years ago seldom occur now.

The average composition of the milk purchased for analysis in the County for the past three years is shown in the following table:—

Month.	% Fat.			% Non-fatty Solids.		
	1917.	1918.	1919.	1917.	1918.	1919.
January ... ..	3.74	3.72	3.60	8.87	8.92	8.81
February ... ..	3.77	3.64	3.66	8.72	8.87	8.91
March ... ..	3.53	3.60	3.59	8.70	8.85	8.91
April... ..	3.67	3.61	3.62	8.63	8.83	8.92
May ... ..	3.69	3.53	3.41	8.69	8.87	8.94
June ... ..	3.54	3.51	3.39	8.83	8.87	8.85
July ... ..	3.63	3.54	3.58	8.69	8.77	8.86
August ... ..	3.62	3.69	3.61	8.77	8.86	8.67
September ... ..	3.83	3.78	3.84	8.86	8.88	8.94
October ... ..	3.81	3.90	3.88	9.06	8.75	8.98
November ... ..	3.85	3.90	3.89	8.91	8.84	9.07
December ... ..	3.72	3.64	3.62	8.93	8.83	8.96
Annual Average ... ..	3.71	3.67	3.65	8.81	8.84	8.91
No. of Samples ... ..	2869	3396	2993	2869	3396	2993





TABLE J.—GIVING DETAILS OF THE SAMPLES TAKEN IN THE ADMINISTRATIVE COUNTY DURING 1919.

DIVISION.	Milk.		Margarine.		Lard.		Spices and Condiments		Beer and Stout.		Other Articles of Food.		Drugs.		Totals.		Percentage of Adulterated Samples.
	*	†	*	†	*	†	*	†	*	†	*	†	*	†	*	†	
Lonsdale North .....	36	13	8	1	13	...	11	...	7	1	45	1	0	...	120	16	13.3
Lonsdale South .....	52	22	1	...	1	...	13	...	0	...	43	2	2	...	112	24	21.4
Garstang .....	52	8	0	...	5	...	14	...	0	...	15	...	0	...	86	8	9.3
Kirkham .....	96	17	0	...	0	...	22	...	0	...	54	3	12	1	184	21	11.4
Blackburn Lower .....	†144	24	0	...	0	...	16	2	3	1	48	4	0	...	211	31	14.7
Blackburn Higher .....	124	17	0	...	18	...	57	2	0	...	108	1	11	...	318	20	6.3
Church .....	108	17	3	...	4	1	14	...	7	...	35	1	5	...	176	19	10.8
Rosendale .....	135	11	0	...	0	...	0	...	0	...	0	...	0	...	135	11	8.1
Leyland .....	132	13	22	...	22	...	22	...	0	...	83	8	6	...	287	21	7.3
Bolton .....	200	21	2	...	30	...	36	...	1	...	28	...	0	...	297	21	7.0
Bury .....	188	27	0	...	9	...	25	1	0	...	49	...	0	...	271	28	10.3
Rochdale .....	244	59	37	...	33	...	17	2	5	4	44	...	0	...	380	65	17.1
Ashton-under-Lyne.....	170	23	9	...	3	...	11	1	11	7	26	1	2	...	232	32	13.8
Manchester .....	406	75	4	...	5	...	50	3	20	7	78	1	13	4	576	90	15.6
Seaforth .....	151	32	0	...	0	...	0	...	0	...	0	...	0	...	151	32	21.2
Ormskirk .....	62	14	4	...	2	...	25	2	2	...	33	1	0	...	128	17	13.2
Prescot .....	41	6	1	...	3	...	13	1	0	...	33	1	9	...	100	8	8.0
Widnes .....	36	4	10	...	6	...	20	...	9	1	38	3	0	...	119	8	6.7
Warrington .....	213	30	7	...	6	...	7	...	50	13	9	...	0	...	292	43	14.7
Wigan .....	157	31	6	...	1	...	36	3	0	...	155	13	0	...	355	47	13.2
County Police .....	2747	464	114	1	161	1	409	17	115	34	924	40	60	5	4530	562	12.40
Local Authorities .....	268	43	5	...	0	...	22	2	0	...	18	1	4	...	317	46	14.51
Other Purchasers .....	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...
Totals .....	3016	508	119	1	161	1	431	19	115	34	942	41	64	5	4848	609	...
							(a)				(b)		(c)				
Percentage of Adulteration.....	16.84		0.84		0.62		4.40		29.56		4.35		7.81		12.56		...

\* No. of Samples. † No. Adulterated.

‡ Includes 1 sample sold as "Diluted Milk," and 1 sample of "Swill."

The 317 samples taken by Local Authorities include—Boroughs of Darwen 18, Middleton 74, and Nelson 30; Urban District Councils of Chadderton 27, Horwich 20, Lytham 12, St. Annes-on-the-Sea 12, Stretford 79, and Westhoughton 45.

- (a) Allspice 1, Cayenne 5, Ginger 163, Ground Nutmeg 1, Mixed Spice 2, Mustard 36, Pepper 206, Pudding Spice 4, Sauce 1, Vinegar 12; total 431.
- (b) Arrowroot 34, Baked Beans (with Pork and Tomato Sauce) 2, Baking Powder 88, Beef and Malt Wine 1, Bread 1, Butter 18, Cake and Bun Flour 14, Carbonate of Soda 8, Caraway Seeds 1, Cheese 22, Cocoa 66; Cocoa, Sugar and Milk 1; Coffee 216, Coffee and Condensed Milk 1; Coffee, Sugar and Milk 1; Condensed Milk Cocoa 3, Cornflour 13, Cream of Tartar 44, Crushed Linseed 4, Custard and Pudding Powder 51, Dripping 1, Egg Powder 20, Flour 14, Ground Almonds 24, Ground Rice 35, Jam 6, Jelly 1, Lemon Cheese 2, Lobster Paste 2, Marmalade 4, Oatmeal 20, Olive Oil 3, Pearl Barley 22, Potted Meats 8, Raw Beef 3, Rice 36, Rice Flour 1, Sago 12, Sarsaparilla Wine 1, Sausages 2, Savoury Paste 2, Self-raising Flour 26, Shrimp and Salmon Paste 2, Soup Powder 4, Sugar 2, Sugar Substitute 1, Sweets 8, Syrup 1, Tapioca 10, Tartaric Acid 5, Tea 58, Tea, Sugar and Milk 1; Tinned Fish 1, Tinned Milk 4, Tinned Tongue 1, Treacle 1, Whiskey 2, Yeast 7; total 942.
- (c) Alum 1, Balsam of Linseed 1, Boracic Acid 2, Borax 1, Carbonate of Magnesia 1, Castor Oil 2, Chlorate of Potash Lozenges 1, Comfrey Leaves and Root 3, Epsom Salts 33, Friar's Balsam 1, Glycerine 2, Gregory Powder 2, Health Salts 1, Liquorice Powder 7, Liver Salts 2, Magnesia 1, Quinine 1, Vaseline 1, Zinc Ointment 1; total 64.





TABLE K.—SHOWING THE NUMBER OF PROSECUTIONS TAKEN IN THE ADMINISTRATIVE COUNTY UNDER THE SALE OF FOOD AND DRUGS ACTS, MILK (WINTER PRICES) ORDER, AND BEER (PRICES AND DESCRIPTION) ORDERS, ARISING, OUT OF SAMPLES PURCHASED DURING THE YEAR 1919.

DIVISION.	Number of Prosecutions.	Number Convicted or Ordered to Pay Costs.	Number Withdrawn.	Number of Dismissals.		Fines and Costs.
				On Warranty.	For other Reasons.	
						£ s. d.
Lonsdale North .....	2	...	...	...	2	...
Lonsdale South .....	0	...	..	...	...	...
Garstang .....	0	...	...	...	...	...
Kirkham .....	0	...	...	..	...	...
Blackburn Lower.....	8	7	1	..	...	87 14 10
Blackburn Higher .....	0	...	...	...	...	...
Church .....	1	1	...	...	...	4 16 0
Rosendale .....	0	..	...	...	...	...
Leyland .....	2	2	...	...	...	11 6 5
Bolton .....	4	4	...	...	...	19 17 0
Bury .....	6	6	...	...	...	28 19 9
Rochdale .....	24	21	1	...	2	145 1 6
Ashton-under-Lyne.....	8	7	...	...	1	25 0 0
Manchester .....	22	15	3	1	3	74 15 6
Seaforth .....	7	6	...	...	1	26 18 6
Ormskirk .....	4	4	...	...	...	30 14 7
Prescot .....	2	2	...	...	...	2 15 6
Widnes .....	1	1	...	...	...	1 2 2
Warrington .....	17	14	1	...	2	137 17 0
Wigan .....	9	8	...	...	1	46 3 10
County Police .....	117	98	6	1	12	643 2 7
Local Authorities.....	9	8	...	...	1	18 17 8
Totals .....	126	106	6	1	13	662 0 3

As usual, this table illustrates the fact that the average quality of the milks taken for analysis is throughout the year much above the statutory limits of 3·0 per cent. fat and 8·5 per cent. non-fatty solids, in spite of the inclusion of many adulterated samples.

Table " J " appended gives details of the articles analysed and the number of adulterations.

Prosecutions numbered 126, and the total amount of fines and penalties was £662 0s. 3d. Details are shown on Table " K." In the year 1918 there were 151 prosecutions, and the fines, &c., amounted to £902 9s. 7½d.



As usual, this table illustrates the fact that the average quantity of the milk taken for analysis is throughout the year much above the statutory limits of 3.0 per cent. fat and 8.0 per cent. non-fat solids in spite of the inclusion of many adulterated samples.

Table "J" appended gives details of the articles analyzed and the number of adulterations.

Inspections numbered 128, and the total amount of fine and penalties was \$602.00. Details are shown in Table "K". For the year 1918 there were 151 inspections and the fines, etc., amounted to \$202.00.

ADMINISTRATIVE COUNTY OF LANCASTER.

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BIRTH AND DEATH RATES

OF THE

URBAN AND RURAL DISTRICTS

FOR THE YEAR 1919,

COMPARED WITH THE RATES FOR THE YEAR 1918, AND WITH  
THE MEAN OF THE 10 YEARS 1909-1918.



ADMINISTRATIVE COUNTY OF LANCASTER

BIRTH AND DEATH RATES

of the

URBAN AND RURAL DISTRICTS

FOR THE YEAR 1912

Compared with the rates for the Year 1911, and with  
the mean of the 10 Years 1903-1912.

## URBAN DISTRICTS.

**Abram.**—

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	21·8	15·2	0·16	0·96	91
1918.....	24·1	16·2	1·69	1·01	112
Mean of 10 years 1909-1918 .....	27·1	14·7	2·17	0·71	126
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-2·3	-1·0	-1·53	-0·05	-21
<i>Ten Years' Average</i> .....	-5·3	+0·5	-2·01	+0·25	-35

**Accrington (Borough).**—

1919.....	14·0	15·4	0·48	0·66	114
1918.....	13·6	15·0	0·57	1·05	93
Mean of 10 years 1909-1918 .....	17·4	13·9	0·95	0·89	110
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0·4	+0·4	-0·09	-0·39	+21
<i>Ten Years' Average</i> .....	-3·4	+1·5	-0·47	-0·23	+4

**Adlington.**—

1919.....	24·1	10·9	0·47	0·71	47
1918.....	17·2	13·2	0·79	1·05	68
Mean of 10 years 1909-1918 .....	21·3	11·6	0·91	0·81	79
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+6·9	-2·3	-0·32	-0·34	-21
<i>Ten Years' Average</i> .....	+2·8	-0·7	-0·44	-0·10	-32



**Ashton-in-Makerfield.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	23·0	13·4	0·84	0·98	103
1918.....	24·2	17·6	2·83	0·48	106
Mean of 10 years 1909-1918 .....	28·4	14·7	2·42	0·67	126
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—1·2	—4·2	—1·99	+0·50	—3
<i>Ten Years' Average</i> .....	—5·4	—1·3	—1·58	+0·31	—23

**Ashton-under-Lyne (Borough).—**

1919.....	18·0	17·1	0·41	0·96	119
1918.....	16·3	20·0	0·83	1·66	121
Mean of 10 years 1909-1918 .....	21·0	17·5	1·82	1·42	148
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1·7	—2·9	—0·42	—0·70	—2
<i>Ten Years' Average</i> .....	—3·0	—0·4	—1·41	—0·46	—29

**Aspull.—**

1919.....	24·8	15·6	1·09	0·96	132
1918.....	20·9	23·5	2·51	0·97	148
Mean of 10 years 1909-1918 .....	28·5	16·5	2·90	0·78	141
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+3·9	—7·9	—1·42	—0·01	—16
<i>Ten Years' Average</i> .....	—3·7	—0·9	—1·81	+0·18	—9

**Atherton.—**

	PER OF 1,000 POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	18.2	12.4	1.22	0.56	85
1918.....	19.3	17.9	2.54	0.84	138
Mean of 10 years 1909-1918 .....	24.5	14.0	1.90	0.93	128
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-1.1	-5.5	-1.32	-0.28	-53
<i>Ten Years' Average</i> .....	-6.3	-1.6	-0.68	-0.37	-43

**Audenshaw.—**

1919.....	16.8	12.2	0.25	0.50	115
1918.....	16.1	14.2	0.41	0.54	106
Mean of 10 years 1909-1918 .....	20.3	13.7	1.22	0.74	130
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.7	-2.0	-0.16	-0.04	+9
<i>Ten Years' Average</i> .....	-3.5	-1.5	-0.97	-0.24	-15

**Bacup (Borough).—**

1919.....	13.1	14.1	0.19	0.44	101
1918.....	13.1	20.4	1.43	0.95	147
Mean of 10 years 1909-1918 .....	17.4	16.7	0.96	0.88	114
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	nil.	-6.3	-1.24	-0.51	-46
<i>Ten Years' Average</i> .....	-4.3	-2.6	-0.77	-0.44	-13



**Barrowford.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	10.9	12.9	0.55	0.36	80
1918.....	9.2	15.0	1.41	0.81	58
Mean of 10 years 1909-1918 .....	17.2	12.5	1.09	0.77	97
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.7	-2.1	-0.86	-0.45	+22
<i>Ten Years' Average</i> .....	-6.3	+0.4	-0.54	-0.41	-17

**Billinge.—**

1919.....	18.3	13.1	0.43	1.09	57
1918.....	24.7	17.6	0.68	1.37	90
Mean of 10 years 1909-1918 .....	26.3	14.3	1.47	0.74	110
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-6.4	-4.5	-0.25	-0.28	-33
<i>Ten Years' Average</i> .....	-8.0	-1.2	-1.04	+0.35	-53

**Blackrod.—**

1919.....	18.7	16.1	0.51	1.54	144
1918.....	20.5	20.7	1.47	0.88	128
Mean of 10 years 1909-1918 .....	23.9	13.8	1.65	0.58	119
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-1.8	-4.6	-0.96	+0.66	+16
<i>Ten Years' Average</i> .....	-5.2	+2.3	-1.14	+0.96	+25

**Brierfield.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	11.5	11.3	0.11	1.06	79
1918.....	11.7	16.4	1.02	1.02	55
Mean of 10 years 1909-1918 .....	17.4	13.0	1.17	1.01	106
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—0.2	—5.1	—0.91	+0.04	+24
<i>Ten Years' Average</i> .....	—5.9	—1.7	—1.06	+0.05	—27

**Carnforth.—**

1919.....	15.9	12.5	0.31	nil.	132
1918.....	18.4	16.2	1.69	1.69	65
Mean of 10 years 1909-1918 .....	21.4	11.8	0.67	0.64	73
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—2.5	—3.7	—1.38	—1.69	+67
<i>Ten Years' Average</i> .....	—5.5	+0.7	—0.36	—0.64	+59

**Chadderton.—**

1919.....	13.3	13.9	0.35	0.45	126
1918.....	15.7	20.6	0.99	1.31	117
Mean of 10 years 1909-1918 .....	22.6	15.9	1.50	1.08	115
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—2.4	—6.7	—0.64	—0.86	+9
<i>Ten Years' Average</i> .....	—9.3	—2.0	—1.15	—0.63	+11



**Chorley (Borough).—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	16.1	12.8	0.60	0.50	92
1918.....	13.1	18.6	0.81	0.94	108
Mean of 10 years 1909-1918 .....	21.4	15.4	1.43	0.96	130
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+3.0	-5.8	-0.21	-0.44	-16
<i>Ten Years' Average</i> .....	-5.3	-2.6	-0.83	-0.46	-38

**Church.—**

1919.....	18.8	14.8	nil.	0.46	149
1918.....	15.2	15.7	0.66	1.66	116
Mean of 10 years 1909-1918 .....	19.1	15.3	0.94	0.93	124
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+3.6	-0.9	-0.66	-1.20	+33
<i>Ten Years' Average</i> .....	-0.3	-0.5	-0.94	-0.47	+25

**Clayton-le-Moors.—**

1919.....	16.3	13.6	0.23	0.59	159
1918.....	14.4	14.9	0.71	1.07	140
Mean of 10 years 1909-1918 .....	20.8	14.6	1.20	0.77	129
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.9	-1.3	-0.48	-0.48	+19
<i>Ten Years' Average</i> .....	-4.5	-1.0	-0.97	-0.18	+30

**Clitheroe (Borough).—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	14.1	13.6	0.16	0.58	107
1918.....	13.3	17.0	0.27	1.57	86
Mean of 10 years 1909-1918 .....	18.2	14.0	0.76	1.10	97
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.8	-3.4	-0.11	-0.99	+21
<i>Ten Years' Average</i> .....	-4.1	-0.4	-0.60	-0.52	+10

**Colne (Borough).—**

1919.....	11.2	12.0	0.34	1.12	121
1918.....	11.8	16.6	0.98	0.84	91
Mean of 10 years 1909-1918 .....	17.2	13.9	1.28	0.91	122
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-0.6	-4.6	-0.64	+0.28	+30
<i>Ten Years' Average</i> .....	-6.0	-1.9	-0.94	+0.21	-1

**Crompton.—**

1919.....	12.2	12.3	0.47	0.80	105
1918.....	12.8	20.9	0.59	1.42	166
Mean of 10 years 1909-1918 .....	19.6	15.8	1.18	0.97	130
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-0.6	-8.6	-0.12	-0.62	-61
<i>Ten Years' Average</i> .....	-7.4	-3.5	-0.71	-0.17	-25



**Croston.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	9.6	14.2	0.52	0.52	52
1918.....	9.5	17.4	0.56	0.56	nil.
Mean of 10 years 1909-1918 .....	16.4	12.1	0.83	0.58	66
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.1	—3.2	—0.04	—0.04	+52
<i>Ten Years' Average</i> .....	—6.8	+2.1	—0.31	—0.06	—14

**Dalton-in-Furness.—**

1919.....	23.9	14.0	0.23	1.16	77
1918.....	25.1	20.4	1.10	1.32	125
Mean of 10 years 1909-1918 .....	25.1	15.3	1.12	1.26	105
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—1.2	—6.4	—0.87	—0.16	—48
<i>Ten Years' Average</i> .....	—1.2	—1.3	—0.89	—0.10	—28

**Darwen (Borough).—**

1919.....	12.6	13.8	0.18	0.58	115
1918.....	9.5	21.0	0.51	0.97	73
Mean of 10 years 1909-1918 .....	16.0	15.0	0.91	0.79	114
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+3.1	—7.2	—0.33	—0.39	+42
<i>Ten Years' Average</i> .....	—3.4	—1.2	—0.73	—0.21	+1

**Denton.**—

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	16.4	11.9	0.23	0.40	81
1918.....	14.4	16.4	0.84	1.09	67
Mean of 10 years 1909-1918 .....	20.3	14.3	1.00	0.90	117
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.0	-4.5	-0.61	-0.69	+14
<i>Ten Years' Average</i> .....	-3.9	-2.4	-0.77	-0.50	-36

**Droylsden.**—

1919.....	17.8	13.9	0.30	1.21	77
1918.....	16.7	16.8	0.78	1.17	66
Mean of 10 years 1909-1918 .....	22.2	14.9	1.73	1.19	110
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.1	-2.9	-0.48	+0.04	+11
<i>Ten Years' Average</i> .....	-4.4	-1.0	-1.43	+0.02	-33

**Eccles (Borough).**—

1919.....	15.1	11.1	0.58	0.96	68
1918.....	15.1	15.1	0.70	1.28	78
Mean of 10 years 1909-1918 .....	20.4	13.9	1.27	1.08	101
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	nil.	-4.0	-0.12	-0.32	-10
<i>Ten Years' Average</i> .....	-5.3	-2.8	-0.69	-0.12	-33



**Failsworth.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	15.3	11.6	0.41	1.25	78
1918.....	14.0	17.1	0.78	1.04	95
Mean of 10 years 1909-1918 .....	23.0	14.9	1.33	1.24	113
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.3	-5.5	-0.37	+0.21	-17
<i>Ten Years' Average</i> .....	-7.7	-3.3	-0.92	+0.01	-35

**Farnworth.—**

1919.....	17.0	16.9	0.64	1.07	127
1918.....	19.3	17.1	1.29	1.33	113
Mean of 10 years 1909-1918 .....	21.8	15.2	2.04	0.99	146
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-2.3	-0.2	-0.65	-0.26	+14
<i>Ten Years' Average</i> .....	-4.8	+1.7	-1.40	+0.08	-19

**Fleetwood.—**

1919.....	18.6	11.4	0.49	0.71	116
1918.....	19.1	17.6	0.99	1.46	95
Mean of 10 years 1909-1918 .....	24.9	13.3	1.24	0.87	101
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-0.5	-6.2	-0.50	-0.75	+21
<i>Ten Years' Average</i> .....	-6.3	-1.9	-0.75	-0.16	+15

**Formby.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	12·1	14·3	0·72	0·90	28
1918.....	12·8	14·9	0·75	0·75	26
Mean of 10 years 1909-1918 .....	16·3	10·6	0·65	0·72	52
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—0·7	—0·6	—0·03	+0·15	+2
<i>Ten Years' Average</i> .....	—4·2	+3·7	+0·07	+0·18	—24

**Fulwood.—**

1919.....	10·6	19·2	0·44	0·88	180
1918.....	12·8	25·9	nil.	0·21	44
Mean of 10 years 1909-1918 .....	13·1	13·3	0·51	0·62	52
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—2·2	—6·7	+0·44	+0·67	+136
<i>Ten Years' Average</i> .....	—2·5	+5·9	—0·07	+0·26	+128

**Golborne.—**

1919.....	26·3	14·2	0·28	0·28	104
1918.....	19·6	14·1	1·41	0·62	85
Mean of 10 years 1909-1918 .....	27·6	15·6	2·60	0·77	147
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+6·7	+0·1	—1·13	—0·34	+19
<i>Ten Years' Average</i> .....	—1·3	—1·4	—2·32	—0·49	—43



**Grange-over-Sands.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	8.9	15.4	nil.	0.55	nil.
1918.....	8.9	21.0	0.52	2.10	157
Mean of 10 years 1909-1918 .....	9.1	12.5	0.38	1.26	51
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	nil.	-5.6	-0.52	-1.55	-157
<i>Ten Years' Average</i> .....	-0.2	+2.9	-0.38	-0.71	-51

**Great Crosby.—**

1919.....	16.1	10.3	0.53	0.69	86
1918.....	15.8	12.9	0.47	1.03	80
Mean of 10 years 1909-1918 .....	18.2	10.5	0.73	0.59	78
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.3	-2.6	+0.06	-0.34	+6
<i>Ten Years' Average</i> .....	-2.1	-0.2	-0.20	+0.10	+8

**Great Harwood.—**

1919.....	15.0	12.6	0.15	0.52	67
1918.....	11.6	16.2	0.33	0.91	127
Mean of 10 years 1909-1918 .....	17.5	12.0	0.68	0.73	94
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+3.4	-3.6	-0.18	-0.39	-60
<i>Ten Years' Average</i> .....	-2.5	+0.6	-0.53	-0.21	-27

**Haslingden (Borough).—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	11·8	15·2	0·45	0·51	130
1918.....	11·3	15·3	0·90	1·16	71
Mean of 10 years 1909-1918 .....	15·8	14·8	0·90	0·98	116
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0·5	—0·1	—0·45	—0·65	+59
<i>Ten Years' Average</i> .....	—4·0	+0·4	—0·45	—0·47	+14

**Haydock.—**

1919.....	29·4	14·6	0·72	1·54	94
1918.....	29·6	19·6	3·02	1·16	153
Mean of 10 years 1909-1918 .....	30·1	15·2	2·35	0·71	135
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—0·2	—5·0	—2·30	+0·38	—59
<i>Ten Years' Average</i> .....	—0·7	—0·6	—1·63	+0·83	—41

**Heysham.—**

1919.....	10·7	16·7	nil.	1·09	24
1918.....	11·7	19·2	0·27	0·27	104
Mean of 10 years 1909-1918 .....	12·9	13·6	0·33	0·72	68
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—1·0	—2·5	—0·27	+0·82	—80
<i>Ten Years' Average</i> .....	—2·2	+3·1	—0·33	+0·37	—41



**Heywood (Borough).—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	15.6	13.4	0.34	0.68	81
1918.....	14.4	22.9	0.54	1.09	112
Mean of 10 years 1909-1918 .....	19.7	17.5	1.27	1.27	130
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.2	—9.5	—0.20	—0.41	—31
<i>Ten Years' Average</i> .....	—4.1	—4.1	—0.93	—0.59	—49

**Hindley.—**

1919.....	22.4	13.3	1.01	0.50	99
1918.....	22.8	18.3	1.45	0.68	129
Mean of 10 years 1909-1918 .....	26.9	16.7	2.44	0.83	142
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—0.4	—5.0	—0.44	—0.18	—30
<i>Ten Years' Average</i> .....	—4.5	—3.4	—1.43	—0.33	—43

**Horwich.—**

1919.....	16.0	10.9	0.40	0.93	27
1918.....	15.8	15.1	0.62	0.76	98
Mean of 10 years 1909-1918 .....	20.0	12.0	1.06	0.81	96
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.2	—4.2	—0.22	+0.17	—71
<i>Ten Years' Average</i> .....	—4.0	—1.1	—0.66	+0.12	—69

**Hurst.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	19.0	13.2	0.38	0.90	58
1918.....	16.0	17.6	1.20	1.06	125
Mean of 10 years 1909-1918 .....	23.3	16.6	1.50	1.22	125
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+3.0	-4.4	-0.82	-0.16	-67
<i>Ten Years' Average</i> .....	-4.3	-3.4	-1.12	-0.32	-67

**Huyton-with-Roby.—**

1919.....	19.0	13.6	nil.	0.91	68
1918.....	16.9	18.5	1.18	0.71	137
Mean of 10 years 1909-1918 .....	17.0	12.5	0.63	0.54	81
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.1	-4.9	-1.18	+0.20	-69
<i>Ten Years' Average</i> .....	+2.0	+1.1	-0.63	+0.37	-13

**Ince-in-Makerfield.—**

1919.....	25.3	15.7	0.36	0.77	129
1918.....	25.3	20.5	1.70	1.60	111
Mean of 10 years 1909-1918 .....	31.2	18.6	3.07	0.86	152
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	nil.	-4.8	-1.34	-0.83	+18
<i>Ten Years' Average</i> .....	-5.9	-2.9	-2.71	-0.09	-23



**Irlam.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	17.6	12.1	0.34	0.34	129
1918.....	22.6	13.7	0.47	0.82	55
Mean of 10 years 1909-1918 .....	24.9	12.0	1.11	0.60	97
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—5.0	—1.6	—0.13	—0.48	+74
<i>Ten Years' Average</i> .....	—7.3	+0.1	—0.77	—0.26	+32

**Kearsley.—**

1919.....	21.3	15.9	0.64	0.42	91
1918.....	18.4	17.5	0.57	0.80	122
Mean of 10 years 1909-1918 .....	22.1	14.4	1.58	0.86	136
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.9	—1.6	+0.07	—0.38	—31
<i>Ten Years' Average</i> .....	—0.8	+1.5	—0.94	—0.44	—45

**Kirkham.—**

1919.....	13.2	15.7	0.54	0.81	156
1918.....	18.5	17.3	1.22	1.22	58
Mean of 10 years 1909-1918 .....	19.7	17.4	1.70	1.42	159
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—5.3	—1.6	—0.68	—0.41	+98
<i>Ten Years' Average</i> .....	—6.5	—1.7	—1.16	—0.61	—3

**Lancaster (Borough).—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	17.8	14.6	0.35	1.14	94
1918.....	15.6	17.2	0.83	1.28	138
Mean of 10 years 1909-1918 .....	19.3	14.2	0.78	1.25	108
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.2	-2.6	-0.48	-0.14	-44
<i>Ten Years' Average</i> .....	-1.5	+0.4	-0.43	-0.11	-14

**Lathom and Burscough.—**

1919.....	19.2	15.1	0.57	0.28	93
1918.....	18.0	22.3	1.75	1.02	144
Mean of 10 years 1909-1918 .....	22.3	14.1	0.83	0.82	93
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.2	-7.2	-1.18	-0.74	51
<i>Ten Years' Average</i> .....	-3.1	+1.0	-0.26	-0.54	nil.

**Lees.—**

1919.....	15.9	16.5	0.42	0.63	89
1918.....	16.3	25.6	2.35	0.47	192
Mean of 10 years 1909-1918 .....	21.9	19.2	1.87	0.96	163
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-0.4	-9.1	-1.93	+0.16	-103
<i>Ten Years' Average</i> .....	-6.0	-2.7	-1.45	-0.33	-74



**Leigh (Borough).—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	21.2	15.5	1.43	1.12	101
1918.....	20.2	17.8	1.64	1.47	143
Mean of 10 years 1909-1918 .....	25.0	16.5	2.32	1.20	148
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.0	—2.3	—0.21	—0.35	—42
<i>Ten Years' Average</i> .....	—3.8	—1.0	—0.89	—0.08	—47

**Leyland.—**

1919.....	14.2	13.0	0.11	1.12	113
1918.....	18.4	15.6	1.32	0.72	75
Mean of 10 years 1909-1918 .....	20.6	13.9	0.95	0.83	98
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—4.2	—2.6	—1.21	+0.40	+38
<i>Ten Years' Average</i> .....	—6.4	—0.9	—0.84	+0.29	+15

**Litherland.—**

1919.....	24.0	14.9	1.01	1.36	85
1918.....	25.8	19.4	1.75	1.75	65
Mean of 10 years 1909-1918 .....	30.1	15.2	1.93	1.11	115
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—1.8	—4.5	—0.74	—0.39	+20
<i>Ten Years' Average</i> .....	—6.1	—0.3	—0.92	+0.25	—30

**Littleborough.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	14.9	16.3	0.26	0.62	85
1918.....	12.7	20.2	0.95	0.66	93
Mean of 10 years 1909-1918 .....	16.5	15.3	0.66	0.91	105
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.2	—3.9	—0.69	—0.04	—8
<i>Ten Years' Average</i> .....	—1.6	+1.0	—0.40	—0.29	—20

**Little Crosby.—**

1919.....	19.7	6.8	nil.	nil.	nil.
1918.....	17.0	17.8	nil.	2.38	125
Mean of 10 years 1909-1918 .....	20.8	10.3	0.43	0.70	52
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.7	—11.0	nil.	—2.38	—125
<i>Ten Years' Average</i> .....	—1.1	—3.5	—0.43	—0.70	—52

**Little Hulton.—**

1919.....	17.5	13.6	0.25	1.02	97
1918.....	17.8	15.3	1.04	0.91	98
Mean of 10 years 1909-1918 .....	23.4	13.7	1.49	1.02	104
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—0.3	—1.7	—0.79	+0.11	—1
<i>Ten Years' Average</i> .....	—5.9	—0.1	—1.24	nil.	—7



**Little Lever.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	14.5	16.0	1.30	0.86	100
1918.....	13.8	16.2	3.20	0.91	117
Mean of 10 years 1909-1918 .....	19.7	14.7	2.03	0.87	126
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.7	-0.2	-1.90	-0.05	-17
<i>Ten Years' Average</i> .....	-5.2	+1.3	-0.73	-0.01	-26

**Longridge.—**

1919.....	15.6	17.3	0.24	1.73	121
1918.....	12.7	16.1	0.52	0.78	127
Mean of 10 years 1909-1918 .....	20.1	15.5	0.94	1.04	138
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.9	+1.2	-0.28	+0.95	-6
<i>Ten Years' Average</i> .....	-4.5	+1.8	-0.70	+0.69	-17

**Lytham.—**

1919.....	10.0	14.0	1.42	0.40	87
1918.....	10.2	13.0	0.11	0.33	19
Mean of 10 years 1909-1918 .....	13.0	12.9	0.63	0.62	68
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-0.2	+1.0	+1.31	+0.07	+68
<i>Ten Years' Average</i> .....	-3.0	+1.1	+0.79	-0.22	+19

**Middleton (Borough).—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	14.0	14.0	0.54	0.68	76
1918.....	13.0	17.2	0.86	1.17	80
Mean of 10 years 1909-1918 .....	19.3	15.1	1.21	1.13	109
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.0	-3.2	-0.32	-0.49	-4
<i>Ten Years' Average</i> .....	-5.3	-1.1	-0.67	-0.45	-33

**Milnrow.—**

1919.....	14.2	13.2	0.37	1.12	67
1918.....	11.9	21.4	2.01	1.20	110
Mean of 10 years 1909-1918 .....	16.9	16.0	1.07	0.99	111
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.3	-8.2	-1.64	-0.08	-43
<i>Ten Years' Average</i> .....	-2.7	-2.8	-0.70	+0.13	-44

**Morecambe (Borough).—**

1919.....	14.6	17.8	nil.	0.67	53
1918.....	13.4	14.2	0.19	0.84	60
Mean of 10 years 1909-1918 .....	13.3	13.7	0.34	0.83	92
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.2	+3.6	-0.19	-0.17	-7
<i>Ten Years' Average</i> .....	+1.3	+4.1	-0.34	-0.16	-39



**Mossley (Borough).—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	17.2	15.3	0.16	0.56	81
1918.....	13.8	14.9	nil.	0.88	68
Mean of 10 years 1909-1918 .....	18.3	15.4	0.55	1.02	92
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+3.4	+0.4	+0.16	-0.32	+13
<i>Ten Years' Average</i> .....	-1.1	-0.1	-0.39	-0.46	-11

**Nelson (Borough).—**

1919.....	9.0	11.6	0.28	0.38	69
1918.....	9.9	14.9	0.58	0.99	112
Mean of 10 years 1909-1918 .....	15.3	11.5	0.77	0.73	100
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-0.9	-3.3	-0.30	-0.61	-43
<i>Ten Years' Average</i> .....	-6.3	+0.1	-0.49	-0.35	-31

**Newton-in-Makerfield.—**

1919.....	20.2	13.0	0.57	0.78	106
1918.....	20.3	15.6	0.53	1.18	62
Mean of 10 years 1909-1918 .....	24.3	13.2	1.47	1.02	103
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-0.1	-2.6	+0.04	-0.40	+44
<i>Ten Years' Average</i> .....	-4.1	-0.2	-0.90	-0.24	+3

**Norden.**—

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	12.1	13.9	0.25	0.51	102
1918.....	13.2	18.5	0.28	0.84	94
Mean of 10 years 1909-1918 .....	17.6	13.8	0.69	0.88	91
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—1.1	—4.6	—0.03	—0.33	+8
<i>Ten Years' Average</i> .....	—5.5	+0.1	—0.44	—0.37	+11

**Ormskirk.**—

1919.....	20.2	18.0	0.75	1.35	85
1918.....	20.7	19.0	0.48	2.09	90
Mean of 10 years 1909-1918 .....	22.3	15.7	0.89	1.40	100
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—0.5	—1.0	+0.27	—0.74	—5
<i>Ten Years' Average</i> .....	—2.1	+2.3	—0.14	—0.05	—15

**Orrell.**—

1919.....	19.5	12.4	0.45	0.90	88
1918.....	19.8	16.8	0.96	nil.	129
Mean of 10 years 1909-1918 .....	25.5	14.6	2.06	0.75	147
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—0.3	—4.4	—0.51	+0.90	—41
<i>Ten Years' Average</i> .....	—6.0	—2.2	—1.61	+0.15	—59



**Oswaldtwistle.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	15.9	15.6	0.20	0.48	133
1918.....	15.8	17.4	1.51	1.28	123
Mean of 10 years 1909-1918 .....	20.0	14.6	1.20	0.75	120
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.1	-1.8	-1.31	-0.80	+10
<i>Ten Years' Average</i> .....	-4.1	+1.0	-1.00	-0.27	+13

**Padiham.—**

1919.....	15.2	15.3	0.24	0.88	86
1918.....	13.1	16.9	1.89	1.04	141
Mean of 10 years 1909-1918 .....	19.9	15.5	1.27	1.02	136
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.1	-1.6	-1.65	-0.16	-55
<i>Ten Years' Average</i> .....	-4.7	-0.2	-1.03	-0.14	-50

**Poulton-le-Fylde.—**

1919.....	15.7	14.0	0.40	nil.	73
1918.....	12.1	19.9	0.42	2.12	nil.
Mean of 10 years 1909-1918 .....	16.1	13.5	0.36	0.48	85
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+3.6	-5.9	-0.02	-2.12	+73
<i>Ten Years' Average</i> .....	-0.4	+0.5	+0.04	-0.48	-12

**Preesall.—**

	PER 1,000 OF POPULATION				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	18.0	12.9	nil.	0.64	68
1918.....	10.7	14.1	nil.	0.67	55
Mean of 10 years 1909-1918 .....	17.9	11.1	0.52	0.39	74
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+7.3	-1.2	nil.	-0.03	+13
<i>Ten Years' Average</i> .....	+0.1	+1.8	-0.52	+0.25	-6

**Prescot.—**

1919.....	20.6	15.4	0.81	1.04	97
1918.....	21.5	18.7	3.74	1.74	108
Mean of 10 years 1909-1918 .....	27.8	16.0	2.27	1.13	110
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-0.9	-3.3	-2.93	-0.70	-11
<i>Ten Years' Average</i> .....	-7.2	-0.6	-1.46	-0.09	-13

**Prestwich.—**

1919.....	13.4	14.4	0.52	1.36	60
1918.....	11.6	14.9	0.63	1.54	59
Mean of 10 years 1909-1918 .....	18.8	12.3	0.69	0.90	74
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.8	-0.5	-0.11	-0.18	+1
<i>Ten Years' Average</i> .....	-5.4	+2.1	-0.17	+0.46	-14



**Radcliffe.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	15.1	18.3	0.89	0.93	102
1918.....	14.7	16.5	0.68	1.23	83
Mean of 10 years 1909-1918 .....	17.7	15.0	1.02	0.88	122
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.4	+1.8	+0.21	-0.30	+19
<i>Ten Years' Average</i> .....	-2.6	+3.3	-0.13	+0.05	-20

**Rainford.—**

1919.....	19.1	12.0	nil	nil.	45
1918.....	22.5	14.2	0.64	0.64	12
Mean of 10 years 1909-1918 .....	25.7	12.8	0.70	0.38	76
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-3.4	-2.2	-0.64	-0.64	+33
<i>Ten Years' Average</i> .....	-6.6	-0.8	-0.70	-0.38	-31

**Ramsbottom.—**

1919.....	13.7	14.3	0.40	0.74	71
1918.....	11.1	17.0	0.66	0.74	88
Mean of 10 years 1909-1918 .....	15.8	14.6	0.93	0.98	100
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.6	-2.7	-0.26	nil.	-17
<i>Ten Years' Average</i> .....	-2.1	-0.3	-0.53	-0.24	-29

**Rawtenstall (Borough).—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	12.5	12.8	0.25	1.02	55
1918.....	12.8	17.2	0.71	1.10	102
Mean of 10 years 1909-1918 .....	17.5	14.3	0.74	0.87	101
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—0.3	—4.4	—0.46	—0.08	—47
<i>Ten Years' Average</i> .....	—5.0	—1.5	—0.49	+0.15	—46

**Rishton.—**

1919.....	13.9	10.5	0.41	0.41	84
1918.....	12.5	15.2	0.31	0.79	56
Mean of 10 years 1909-1918 .....	16.9	11.8	0.61	0.95	85
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.4	—4.7	+0.10	—0.38	+28
<i>Ten Years' Average</i> .....	—3.0	—1.3	—0.20	—0.54	—1

**Royton.—**

1919 .....	11.9	13.6	0.62	0.79	141
1918 .....	14.2	23.0	0.66	1.45	157
Mean of 10 years 1909-1918 .....	22.3	17.3	1.29	1.00	128
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—2.3	—9.4	—0.04	—0.66	—16
<i>Ten Years' Average</i> .....	—10.4	—3.7	—0.67	—0.21	+13



**St. Annes-on-the-Sea.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	10.1	14.2	1.04	0.83	79
1918.....	8.2	11.5	0.59	0.59	43
Mean of 10 years 1909-1918 .....	11.1	11.0	0.44	0.52	67
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.9	+2.7	+0.45	+0.24	+36
<i>Ten Years' Average</i> .....	-1.0	+3.2	+0.60	+0.31	+12

**Skelmersdale.—**

1919.....	24.0	14.4	1.09	0.46	93
1918.....	24.1	19.6	1.28	1.28	124
Mean of 10 years 1909-1918 .....	28.5	16.4	2.07	0.74	143
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-0.1	-5.2	-0.19	-0.82	-31
<i>Ten Years' Average</i> .....	-4.5	-2.0	-0.98	-0.28	-50

**Standish-with-Langtree.—**

1919.....	20.6	14.8	0.85	0.42	153
1918.....	22.5	15.9	1.19	0.59	106
Mean of 10 years 1909-1918 .....	25.4	13.7	1.25	0.54	122
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-1.9	-1.1	-0.34	-0.17	+47
<i>Ten Years' Average</i> .....	-4.8	+1.1	-0.40	-0.12	+31

**Stretford.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	12·8	12·3	0·21	0·96	76
1918.....	12·5	14·0	0·54	1·00	62
Mean of 10 years 1909-1918 .....	16·4	11·6	0·75	0·84	86
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0·3	-1·7	-0·33	-0·04	+14
<i>Ten Years' Average</i> .....	-3·6	+0·7	-0·54	+0·12	-10

**Swinton and Pendlebury.—**

1919.....	18·7	13·5	0·74	0·85	96
1918.....	16·5	16·8	0·61	1·45	100
Mean of 10 years 1909-1918 .....	22·1	14·5	1·53	1·11	133
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2·2	-3·3	+0·13	-0·60	-4
<i>Ten Years' Average</i> .....	-3·4	-1·0	-0·79	-0·26	-37

**Thornton.—**

1919.....	16·5	12·3	0·39	0·58	79
1918.....	14·4	17·4	0·42	1·06	78
Mean of 10 years 1909-1918 .....	21·1	12·5	0·54	0·76	83
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2·1	-5·1	-0·03	-0·48	+1
<i>Ten Years' Average</i> .....	-4·6	-0·2	-0·15	-0·18	-4



**Tottington.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	10.5	14.4	1.03	1.18	81
1918.....	10.9	18.8	0.67	2.18	82
Mean of 10 years 1909-1918 .....	15.4	13.2	0.81	1.03	91
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-0.4	-4.4	+0.36	-1.00	-1
<i>Ten Years' Average</i> .....	-4.9	+1.2	+0.22	+0.15	-10

**Trawden.—**

1919.....	13.6	10.8	0.37	0.74	26
1918.....	10.5	16.7	1.22	nil.	63
Mean of 10 years 1909-1918 .....	19.4	13.2	0.76	0.92	109
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+3.1	-5.9	-0.85	+0.74	-42
<i>Ten Years' Average</i> .....	-5.8	-2.4	-0.39	-0.18	-83

**Turton.—**

1919.....	12.1	13.4	0.33	0.41	66
1918.....	9.9	13.8	0.93	0.46	67
Mean of 10 years 1909-1918 .....	15.3	12.4	0.50	0.73	79
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.2	-0.4	-0.60	-0.05	-1
<i>Ten Years' Average</i> .....	-3.2	+1.0	-0.17	-0.32	-13

**Tyldesley-with-Shakerley.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	21.9	15.8	0.83	1.08	115
1918.....	23.4	17.0	1.70	0.52	73
Mean of 10 years 1909-1918 .....	25.1	15.1	2.28	0.95	120
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-1.5	-1.2	-0.87	+0.56	+42
<i>Ten Years' Average</i> .....	-3.2	+0.7	-1.45	+0.13	-5

**Ulverston.—**

1919.....	20.6	14.3	0.40	0.80	65
1918.....	20.2	19.4	0.97	0.58	76
Mean of 10 years 1909-1918 .....	21.2	15.0	1.04	0.73	100
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.4	-5.1	-0.57	+0.22	-11
<i>Ten Years' Average</i> .....	-0.6	-0.7	-0.64	+0.07	-35

**Upholland.—**

1919.....	27.4	11.8	0.78	0.19	55
1918.....	19.1	17.3	1.44	0.61	115
Mean of 10 years 1909-1918 .....	26.7	14.4	1.49	0.74	117
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+8.3	-5.5	-0.66	-0.42	-60
<i>Ten Years' Average</i> .....	+0.7	-2.6	-0.71	-0.55	-62



## Urmston.—

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	13.3	11.5	0.23	0.83	34
1918.....	13.7	12.1	0.25	0.89	58
Mean of 10 years 1909-1918 .....	17.7	10.8	0.88	0.87	70
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—0.4	—0.6	—0.02	—0.06	—24
<i>Ten Years' Average</i> .....	—4.4	+0.7	—0.65	—0.04	—36

## Walton-le-Dale.—

1919.....	15.4	12.7	0.68	0.85	85
1918.....	14.0	16.6	0.09	1.41	77
Mean of 10 years 1909-1918 .....	20.0	13.9	0.92	0.90	110
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.4	—3.9	+0.59	—0.56	+8
<i>Ten Years' Average</i> .....	—4.6	—1.2	—0.24	—0.05	—25

## Wardle.—

1919.....	12.7	14.8	nil.	1.51	22
1918.....	9.6	29.3	0.63	2.23	117
Mean of 10 years 1909-1918 .....	14.6	17.5	0.82	1.11	115
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+3.1	—14.5	—0.63	—0.72	—95
<i>Ten Years' Average</i> .....	—1.9	—2.7	—0.82	+0.40	—93

**Waterloo-with-Seaforth.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	18.6	14.6	0.97	1.14	73
1918.....	19.6	17.0	0.91	1.22	86
Mean of 10 years 1909-1918 .....	21.7	13.6	1.03	1.03	87
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-1.0	-2.4	+0.06	-0.08	-13
<i>Ten Years' Average</i> .....	-3.1	+1.0	-0.06	+0.11	-14

**Westhoughton.—**

1919.....	20.9	12.6	0.39	0.39	99
1918.....	19.2	15.7	2.04	0.58	91
Mean of 10 years 1909-1918 .....	24.8	14.0	1.58	0.62	123
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.7	-3.1	-1.65	-0.19	+8
<i>Ten Years' Average</i> .....	-3.9	-1.4	-1.19	-0.23	-24

**Whitefield.—**

1919.....	12.4	12.9	nil.	0.80	104
1918.....	14.2	15.1	0.47	0.78	79
Mean of 10 years 1909-1918 .....	18.0	14.4	1.00	0.73	104
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-1.8	-2.2	-0.47	+0.02	+25
<i>Ten Years' Average</i> .....	-5.6	-1.5	-1.00	+0.07	nil.



**Whitworth.**—

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	13.3	16.9	0.36	0.97	69
1918.....	11.7	22.3	1.53	1.53	74
Mean of 10 years 1909-1918 .....	16.9	17.9	0.84	1.37	115
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.6	-5.4	-1.17	-0.56	-5
<i>Ten Years' Average</i> .....	-3.6	-1.0	-0.48	-0.40	-46

**Widnes (Borough).**—

1919.....	26.0	16.5	1.43	1.22	90
1918.....	23.8	18.8	1.57	1.26	118
Mean of 10 years 1909-1918 .....	29.0	17.3	2.56	1.14	127
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.2	-2.3	-0.14	-0.04	-28
<i>Ten Years' Average</i> .....	-3.0	-0.8	-1.13	+0.08	-37

**Withnell.**—

1919.....	14.1	13.0	nil.	0.70	23
1918.....	13.5	17.0	0.36	0.36	119
Mean of 10 years 1909-1918 .....	18.3	12.1	0.60	0.58	71
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.6	-4.0	-0.36	+0.34	-96
<i>Ten Years' Average</i> .....	-4.2	+0.9	-0.60	+0.12	-48

## Worsley.—

PER 1,000 OF POPULATION.

	Birth- rate.	Death- rate.	Epidemic Death- rate.	Phthisis Death- rate.	Rate of Deaths under 1 year to 1,000 Births.
1919.....	13·9	14·1	0·13	0·48	109
1918.....	14·3	14·5	0·53	1·29	71
Mean of 10 years 1909-1918 .....	18·5	12·7	0·98	0·65	108
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—0·4	—0·4	—0·40	—0·81	+38
<i>Ten Years' Average</i> .....	—4·6	+1·4	—0·85	—0·17	+1



## RURAL DISTRICTS.

**Barton-upon-Irwell.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	19.0	13.3	nil.	0.80	63
1918.....	15.2	16.2	0.34	1.93	86
Mean of 10 years 1909-1918 .....	19.9	12.3	0.79	0.73	80
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+3.8	-2.9	-0.34	-1.13	-23
<i>Ten Years' Average</i> .....	-0.9	+1.0	-0.79	+0.07	-17

**Blackburn.—**

1919.....	14.0	14.3	0.12	0.86	67
1918.....	12.3	16.6	0.39	0.78	141
Mean of 10 years 1909-1918 .....	18.2	13.8	0.67	0.65	94
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.7	-2.3	-0.27	+0.08	-74
<i>Ten Years' Average</i> .....	-4.2	+0.5	-0.55	+0.21	-27

**Burnley.—**

1919.....	12.4	13.5	0.34	0.51	101
1918.....	12.0	14.6	0.35	0.88	79
Mean of 10 years 1909-1918 .....	16.9	13.1	0.70	0.68	107
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.4	-1.1	-0.01	-0.37	+22
<i>Ten Years' Average</i> .....	-4.5	+0.4	-0.36	-0.17	-6

**Bury.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	13.9	15.2	0.45	0.57	79
1918.....	12.3	18.9	0.49	0.85	123
Mean of 10 years 1909-1918 .....	18.4	14.2	0.95	0.79	97
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.6	-3.7	-0.04	-0.28	-44
<i>Ten Years' Average</i> .....	-4.5	+1.0	-0.50	-0.22	-18

**Chorley.—**

1919.....	15.0	12.3	0.23	0.73	102
1918.....	16.3	17.7	1.07	0.71	106
Mean of 10 years 1909-1918 .....	21.2	13.8	1.04	0.75	111
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	-1.3	-5.4	-0.84	+0.02	-4
<i>Ten Years' Average</i> .....	-6.2	-1.5	-0.81	-0.02	-9

**Clitheroe.—**

1919.....	14.9	14.7	0.32	0.48	113
1918.....	13.8	12.4	nil.	0.17	55
Mean of 10 years 1909-1918 .....	18.1	13.1	0.38	0.79	73
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.1	+2.3	+0.32	+0.31	+58
<i>Ten Years' Average</i> .....	-3.2	+1.6	-0.06	-0.31	+40



**Fylde.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	16.4	12.3	0.27	0.45	58
1918.....	14.5	16.1	0.57	0.57	82
Mean of 10 years 1909-1918 .....	20.2	12.8	0.97	0.46	90
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.9	-3.8	-0.30	-0.12	-24
<i>Ten Years' Average</i> .....	-3.8	-0.5	-0.70	-0.01	-32

**Garstang.—**

1919.....	15.6	13.2	0.38	0.77	89
1918.....	14.6	17.1	0.51	0.41	88
Mean of 10 years 1909-1918 .....	18.6	12.7	0.36	0.47	74
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.0	-3.9	-0.13	+0.36	+1
<i>Ten Years' Average</i> .....	-3.0	+0.5	+0.02	+0.30	+15

**Lancaster.—**

1919.....	18.2	14.9	0.47	1.07	94
1918.....	17.5	21.8	1.13	1.00	141
Mean of 10 years 1909-1918 .....	17.9	13.6	0.59	0.61	83
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.7	-6.9	-0.66	+0.07	-47
<i>Ten Years' Average</i> .....	+0.3	+1.3	-0.12	+0.46	+11

## Leigh.—

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	19.0	15.3	0.40	0.70	101
1918.....	20.8	17.4	1.78	0.52	99
Mean of 10 years 1909-1918 .....	25.8	14.5	1.98	0.75	123
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—1.8	—2.1	—1.38	+0.18	+2
<i>Ten Years' Average</i> .....	—6.8	+0.8	—1.58	—0.05	—22

## Limehurst.—

1919.....	15.6	16.0	0.56	0.56	103
1918.....	15.7	15.5	0.48	1.08	116
Mean of 10 years 1909-1918 .....	21.7	15.1	1.20	1.04	118
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—0.1	+0.5	+0.08	—0.52	—13
<i>Ten Years' Average</i> .....	—6.1	+0.9	—0.64	—0.48	—15

## Lunesdale.—

1919.....	15.5	12.8	0.33	0.67	104
1918.....	14.8	12.1	0.33	0.33	70
Mean of 10 years 1909-1918 .....	17.1	11.9	0.46	0.51	70
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.7	+0.7	nil.	+0.34	+34
<i>Ten Years' Average</i> .....	—1.6	+0.9	—0.13	+0.16	+34



**Preston.**—

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	15.2	12.3	0.21	0.64	64
1918.....	15.4	17.6	0.23	0.97	73
Mean of 10 years 1909-1918 .....	19.7	13.7	0.58	0.80	85
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—0.2	—5.3	—0.02	—0.33	—9
<i>Ten Years' Average</i> .....	—4.5	—1.4	—0.37	—0.16	—21

**Sefton.**—

1919.....	14.9	12.3	0.21	0.63	68
1918.....	18.2	14.8	1.12	1.34	65
Mean of 10 years 1909-1918 .....	17.6	12.7	0.47	1.11	82
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	—3.3	—2.5	—0.91	—0.71	+3
<i>Ten Years' Average</i> .....	—2.7	—0.4	—0.26	—0.48	—14

**Ulverston.**—

1919.....	20.3	14.8	0.18	0.99	73
1918.....	16.4	15.2	0.73	0.85	83
Mean of 10 years 1909-1918 .....	18.5	13.2	0.40	0.70	69
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+3.9	—0.4	—0.55	+0.14	—10
<i>Ten Years' Average</i> .....	+1.8	+1.6	—0.22	+0.29	+4

**Warrington.—**

	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death-rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	19.0	13.2	nil.	0.98	85
1918.....	17.8	16.4	1.78	0.94	94
Mean of 10 years 1909-1918 .....	21.2	12.8	1.16	1.03	94
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1.2	-3.2	-1.78	+0.04	-9
<i>Ten Years' Average</i> .....	-2.2	+0.4	-1.16	-0.05	-9

**West Lancashire.—**

1919.....	17.8	16.8	0.36	0.67	86
1918.....	17.3	17.7	0.67	0.78	80
Mean of 10 years 1909-1918 .....	19.5	12.6	0.66	0.70	85
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.5	-0.9	-0.31	-0.11	+6
<i>Ten Years' Average</i> .....	-1.7	+4.2	-0.30	-0.03	+1

**Whiston.—**

1919.....	22.2	17.8	0.52	1.26	105
1918.....	20.0	15.0	1.39	1.19	85
Mean of 10 years 1909-1918 .....	22.9	13.1	1.25	0.82	95
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+2.2	+2.8	-0.87	+0.07	+20
<i>Ten Years' Average</i> .....	-0.7	+4.7	-0.73	+0.44	+10



Wigan.—	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth-rate.	Death rate.	Epidemic Death-rate.	Phthisis Death-rate.	
1919.....	17·6	16·8	0·68	0·51	111
1918.....	16·4	13·9	0·53	1·23	67
Mean of 10 years 1909-1918 .....	21·5	13·2	0·76	0·64	111
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+1·2	+2·9	+0·15	—0·72	+44
<i>Ten Years' Average</i> .....	—3·9	+3·6	—0·08	—0·13	nil.

Aggregate of County Urban Districts—	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth- rate.	Death- rate.	Epidemic Death- rate.	Phthisis Death- rate.	
1919.....	16.58	14.01	0.63	0.81	94
1918.....	16.09	17.40	0.99	1.10	101
Mean of 10 years 1909-1918 .....	20.65	14.60	1.30	0.94	115
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.49	-3.39	-0.36	-0.29	-7
<i>Ten Years' Average</i> .....	-4.07	-0.59	-0.67	-0.13	-21

Aggregate of County Rural Districts—	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth- rate.	Death- rate.	Epidemic Death- rate.	Phthisis Death- rate.	
1919.....	16.88	14.40	0.41	0.75	88
1918.....	16.06	16.41	0.77	0.88	90
Mean of 10 years 1909-1918 .....	19.94	13.34	0.83	0.74	93
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.82	-2.01	-0.36	-0.13	-2
<i>Ten Years' Average</i> .....	-3.06	+1.06	-0.42	+0.01	-5

Aggregate of Administrative County—	PER 1,000 OF POPULATION.				Rate of Deaths under 1 year to 1,000 Births.
	Birth- rate.	Death- rate.	Epidemic Death- rate.	Phthisis Death- rate.	
1919.....	16.62	14.06	0.49	0.80	93
1918.....	16.08	17.26	0.96	1.07	100
Mean of 10 years 1909-1918 .....	20.55	14.43	1.23	0.91	113
<i>Increase or Decrease in 1919 on—</i>					
<i>Previous Year</i> .....	+0.54	-3.20	-0.47	-0.27	-7
<i>Ten Years' Average</i> .....	-3.93	-0.37	-0.74	-0.11	-20



## \*EXTRACT FROM THE METEOROLOGICAL REPORT

BY THE

REV. A. L. CORTIE, S.J., F.R.A.S., F. Inst. P.,

*Of Stonyhurst College Observatory.*SUMMARY OF OBSERVATIONS  
FOR 1919.

Results of Observations taken during the Year.		Mean for the last 72 years.
<i>Readings of Barometer in inches.</i>		
Mean of the year	... .. 29.496	29.492
Highest Monthly Mean (October)	... .. 29.767	29.744
Lowest " " (January)	... .. 29.263	29.221
Highest Reading (April)	... .. 30.302	30.291
Lowest " (April)	... .. 28.250	28.202
Range	... .. 2.052	2.089
<i>Thermometer, Fahrenheit.</i>		
Highest Monthly Mean Temperature (August)	56.7	58.6
Lowest " " (February)	34.7	35.5
Highest Reading of a Max. Therm. (June 11th)	76.5	81.4
Lowest Reading of a Min. Therm. (February 9th)	19.4	16.0
Range of Thermometer Readings	57.1	65.4
Mean of Highest Daily "	52.1	54.5
Mean of Lowest Daily "	40.9	40.9
Mean Daily Range	11.2	13.6
Deduced Mean Temperature (from mean of Max. and Min.)	45.5	46.7
Mean Temperature from Dry Bulb	46.2	47.1
Adopted Mean Temperature of the Year.	45.9	46.9
Mean Temperature of Evaporation	43.4	44.6
Mean Temperature of Dew Point	40.7	42.1
Mean elastic force of Vapour ... inches	0.262	0.274
Mean weight of Vapour in a cubic foot of air ... .. grains	3.0	3.2
Mean additional weight required for saturation ... .. grains	0.7	0.7
Mean degree of Humidity (saturation 100)	83	83

\* Introduced by kind permission.

Results of Observations taken during the Year.		Mean for the last 72 years.
Mean weight of a cubic foot of air.. grains	540.4	539.1
Mean amount of Cloud (0—10) ... ..	7.0	7.3
Total fall of Rain . . . . .inches	41.128	47.067
Greatest Monthly Rainfall (Dec.) ..	6.645	7.605
Least .. .. (Feb.) ..	1.295	1.236
Greatest Rainfall in one day (Mar. 10th) ..	1.375	1.625
No. of days per Month on which .005 inch or more Rain fell ... ..	16.9	17.1

## SUMMARY OF WIND.

Prevailing direction	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
No. of days for each ... ..	49	47	26	7	46	51	121	18
Mean Velocity in miles per hour ...	6.4	6.2	7.2	8.3	9.2	8.2	10.8	8.2
Total No. of miles for each direction .	7528	7001	4503	1397	10184	10032	31466	3534
								Mean for the last 52 years.
Total No. of miles registered ... ..	75645						85664.5	
Greatest Monthly Total (December) ...	9468						9981.8	
Least .. .. (February) ...	3875						4955.5	
Greatest hourly velocity (Jan. 2nd, 9th, and Dec. 11th) ... ..					40	50.9		
Prevailing Direction of Wind ... ..					W	W		



Results of observations taken during the year

Mean weight of cubic foot of air (grains) 530.1	Mean amount of (p) (0-10) 3.0
Local fall of rain 47.98 inches	Local fall of rain 47.98
Greatest monthly rainfall (p) 7.00	Greatest monthly rainfall (p) 7.00
Greatest daily rainfall in one day 1.77	Greatest daily rainfall in one day 1.77
% of days per month on which less than or more than 100	1.77

SUMMARY OF WIND

Prevailing direction N. N. E.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	N.
No. of days for each	10	21	30	7	18	41	13	18
Mean velocity in miles per hour	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Total No. of miles for each direction	42	88	126	29	75	172	54	72

of the year

Total No. of miles registered	1100
Greatest monthly total (January)	110
Greatest hourly velocity (Jan. 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th, 21st, 22nd, 23rd, 24th, 25th, 26th, 27th, 28th, 29th, 30th, 31st)	110
Prevailing Direction of Wind	N. N. E.