

[Report 1919] / Medical Officer of Health, Bury County Borough.

Contributors

Bury (Greater Manchester, England). County Borough Council.

Publication/Creation

1919

Persistent URL

<https://wellcomecollection.org/works/trr85yrb>

License and attribution

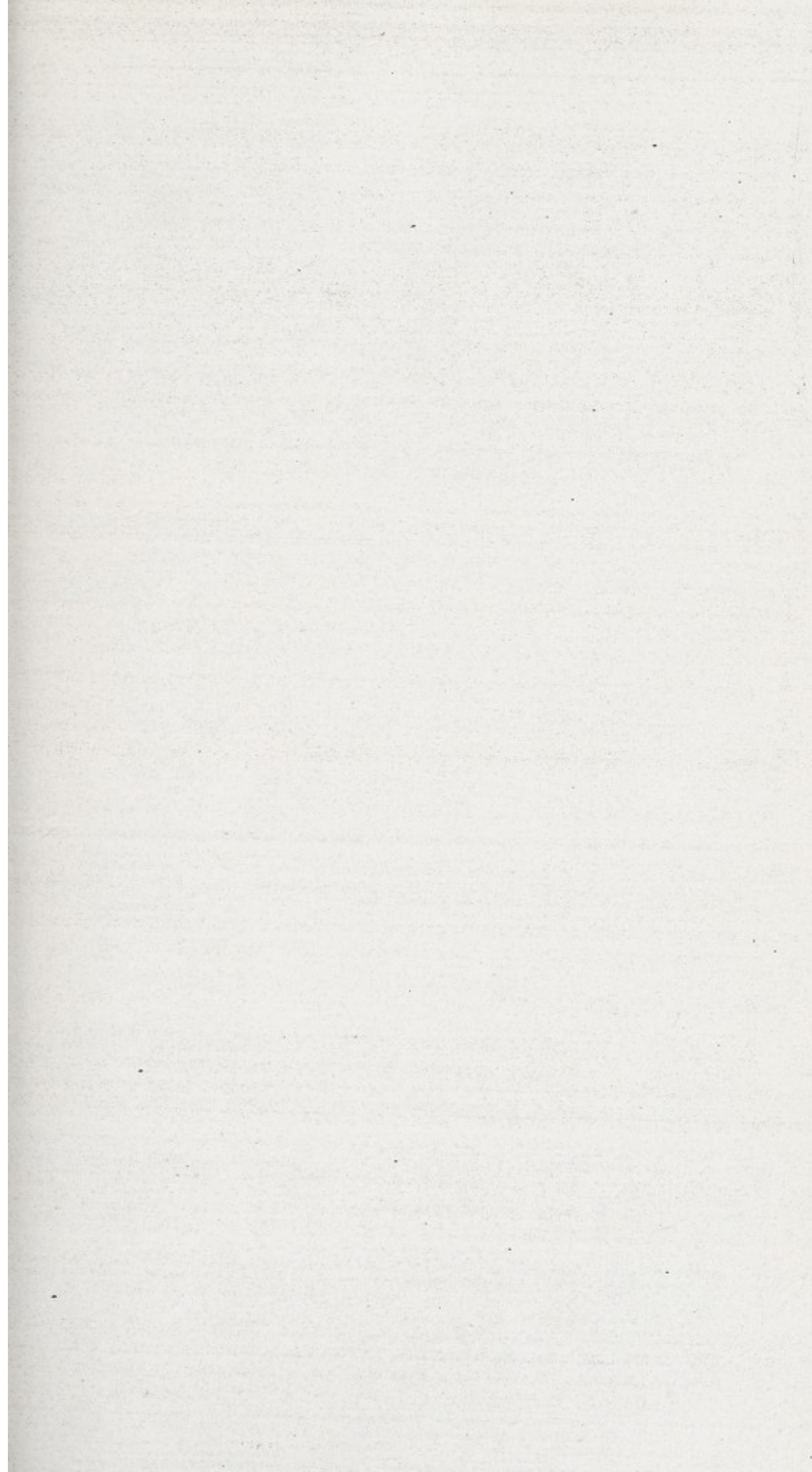
You have permission to make copies of this work under a Creative Commons, Attribution license.

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

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



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





COUNTY BOROUGH OF BURY.

ANNUAL REPORT
OF THE
Medical Officer of Health
FOR THE YEAR
1919,

BY
G. GRANVILLE BUCKLEY,
M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH, CHIEF TUBERCULOSIS OFFICER.
MEDICAL OFFICER TO THE EDUCATION COMMITTEE,
AND
MEDICAL ADVISER TO THE LOCAL INSURANCE COMMITTEE.

BURY :
PRINTED AT THE "TIMES" OFFICE, CROSS STREET.
1920.

HEALTH COMMITTEE, 1919.

CHAIRMAN - COUNCILLOR T. B. SMITH.

DEPUTY-CHAIRMAN - COUNCILLOR BOYDEN.

HIS WORSHIP THE MAYOR	COUNCILLOR HARGREAVES,
(COUNCILLOR SIR J. HACKING),	
ALDERMAN ASHWORTH,	„ HARRISON,
„ BRADLEY,	„ HOLT,
„ COLLINGE,	„ REDFORD,
„ FLETCHER,	„ SHARP,
„ GREENHALGH,	„ J. SMITH,
COUNCILLOR ASHWORTH,	„ A. TAYLOR,
„ BATTERSBY,	„ J. TURNER,
„ DAWSON,	„ WILKINSON.

*Meetings—The Wednesday in each month immediately preceding
the 14th day before the Council, at 10-0 a.m.*

OFFICIALS OF THE HEALTH DEPARTMENT.

*Inspector of Nuisances, District Inspector of Moorside, East, and part of Redvales Wards, Inspector under Shop Hours' Acts, Inspector under Explosives Act, &c. :—*JOHN HAWORTH, Cert. R.S.I., Certified Sanitary Engineer, Certified Inspector of Meat and other Foods.

*District Inspector for Church, Elton, and part of Redvales Wards, Inspector under Canal Boat Acts, &c. :—*SAMUEL KAY, Cert. R.S.I.

*Smoke Inspector, Inspector of Infectious Diseases, Common Lodging Houses, &c. :—*HENRY MITCHELL, Cert. R.S.I.

*Abattoirs Superintendent, Inspector of Meat, and of Dairies, Cowsheds, and Milkshops; Inspector of Offensive Trades, &c. :—*ALEXANDER ADAMS, Cert. R.S.I., Certified Inspector of Meat and other Food.

*Health Visitors, Inspectors of Workshops (where Females are employed), Inspectors under Shop Hours' Acts, Inspectors of Midwives, &c. :—*NURSES M. HACKING, S. PENNINGTON, B. GREENHALGH, and E. WEBSTER.

*School Visitor :—*LILIAN H. RISHTON, M.I.H.

*Chief Clerk :—*P. WOOD. *Junior Clerk :—*L. KAY.

Medical Officer of Health :

G. GRANVILLE BUCKLEY, M.D., Ch.B., D.P.H.

Assistant Medical Officer of Health :

JOHN ALLEN, M.B., D.P.H. (April 11th to September 11th).

HARRY F. HUTCHINSON, M.B., D.P.H. (September 15th to end of year).

Inspector under Food and Drugs Acts :

H. C. CASS (Markets Inspector).

*Borough Analyst :—*THOMAS J. HUTCHINSON, F.I.C.

*Veterinary Inspector and Surgeon :—*W. E. S. RICHMOND,
M.R.C.V.S.

CONTENTS.

	PAGE
I.—Statistical	7—19
II.—Infant Mortality	18—26
(a) Midwives' Act	24—26
III.—Infectious Diseases	27—50
(a) Notifiable... ..	27—39
(b) Non-Notifiable... ..	40—46
(c) Tuberculosis... ..	46—50
(d) Diarrhœa	43—44
(e) Venereal Diseases... ..	45—46
IV.—Schools	40—42
V.—Cancer	51
VI.—Water Supply	53—54
VII.—Sanitary Administration	53—75
(a) Factories and Workshops	55—59
(b) Common Lodging Houses	60—61
(c) Petroleum Acts	61
(d) Explosives' Acts	62
(e) Smoke Nuisance... ..	62—63
(f) Pollution of Rivers... ..	63—64
(g) Canal Boat Acts	64
(h) Nuisances and Notices	65—66
(i) Inspection of Meat and Milk	67—71
(j) Milk and Cream Regulations	71
(k) Housing... ..	72—75
(l) Disinfection... ..	52
VIII.—Summary of Visits of the Health Visitors... ..	76
IX.—Summary of Visits of the Sanitary Inspectors	77
X.—Tables	78—81
XI.—Report of Borough Analyst... ..	82
XII.—Index	83—86

Public Health Department,
Clough Street,
BURY,

October, 1920.

To the Chairman and Members of the Health Committee.

Lady and Gentlemen,

I have the honour to present to you my Annual Report on the health and sanitary circumstances of your Borough during the year 1919.

The Ministry of Health issued instructions that reports should be given in full detail similar to those issued previous to the commencement of the War.

The Birth Rate (13.06) is slightly higher than the rate for 1918, but it is next to the lowest ever recorded for the Borough. There is, however, every hope for a recovery in the Birth Rate, as shown by the fact that the rate for the past nine months is 20.51 per 1,000 of the population.

The Death Rate (16.88) shows a decrease of 2.25 per 1,000 as compared with the rate for 1918. It is still rather high, and is accounted for by the large number of deaths from Influenza. The Phthisis Death Rate, however, is only 0.88 per 1,000, and is the lowest recorded for the Borough.

I am pleased to report that the Infant Mortality Rate has decreased to 92 per 1,000 births, and this rate also is the lowest recorded for the Borough. The average for the previous ten years was 125 per 1,000 births. The rate (92) compares very favourably with the average for the 96 great towns of England and Wales, which is 93 per 1,000 births.

I am, Lady and Gentlemen,

Yours obediently,

G. GRANVILLE BUCKLEY,

Medical Officer of Health.



Digitized by the Internet Archive
in 2017 with funding from
Wellcome Library

<https://archive.org/details/b28968505>

County Borough of Bury.

STATISTICAL SUMMARY, 1919.

Situation—Latitude, 53° 36' N.; Longitude, 2° 18' W.

Population (estimated 1919)	54248				
„ (census 1911)	59040				
Number of Inhabited Houses (Census 1911)	13919				
Marriages (Bury Union)	1474				
Births	<table><tr><td>Males</td><td>365</td></tr><tr><td>Females</td><td>373</td></tr></table> } Total ... 738	Males	365	Females	373
Males	365				
Females	373				
„ (Illegitimate)	39				
Annual Rate of Births per 1,000 of the Population (56,510)	13.06				
Deaths	<table><tr><td>Males</td><td>443</td></tr><tr><td>Females</td><td>473</td></tr></table> } Total ... 916	Males	443	Females	473
Males	443				
Females	473				
Annual Rate of Mortality per 1,000 of the population (54248)	16.88				
Excess of Registered Deaths over Births	178				
Infantile Mortality	92 per 1,000 Births.				

Density.—The mean density of the Borough from the census of 1911 was equal to 10.09 persons per acre:—In Church Ward, 26.72; East Ward, 16.15; Moorside Ward, 9.33; Redvales Ward, 9.22; Elton Ward, 6.76.

Area.—The Municipal Borough of Bury comprises parts of what were formerly the Townships of Tottington-lower-End, Shuttleworth, Bircle-cum-Bamford, Heap, Pilsworth, Pilkington, Radcliffe and Elton, as well as the township of Walmersley, and has a total area of 5,925 acres.

Elevation.—The mean elevation of the Borough is about 300 feet above sea level, and varies between 223 feet at Blackford Bridge and 765 feet at Higher Sedger Hey.

LEGAL SUMMARY.

Particulars of the Sanitary Laws in force in the Borough (other than Public General Acts) :—

LOCAL ACT.

Bury Corporation Act, 1909.

ACTS CONFIRMING PROVISIONAL ORDERS.

Local Government Board's Provisional Orders Confirmation (No. 17) Act, 1903. (An Act to confirm certain Provisional Orders relating to Bury and the Bury and District Joint Hospital Board.)

Local Government Board's Provisional Orders Confirmation (No. 5) Act, 1911, which confirmed a Provisional Order made by the Local Government Board for the inclusion of Warth Fold within the Borough as from the 9th November, 1911.

ACTS ADOPTED.

Public Health Acts Amendment Act, 1890. (March 5th, 1891; came into operation May 1st, 1891.)

Infectious Diseases (Prevention) Act, 1890. (August 2nd, 1900; came into operation October 1st, 1901.)

Housing of the Working Classes Act, 1890—Part III. (June 3rd, 1909.)

Notification of Births Act, 1907. (March 5th, 1908.)

Public Health Acts Amendment Act, 1907. Orders made, declaring certain Parts and Sections thereof to be in force in the Borough, by the Local Government Board on November 8th, 1909 (came into operation 1st January, 1910), and by the Secretary of State on October 13th, 1909.

ACTS CONSTITUTING CERTAIN JOINT AUTHORITIES—

- (i.) as to prevention of pollution of rivers, namely: Local Government Board's Provisional Orders Confirmation (No. 10) Act, 1891. (Confirming a Provisional Order constituting a Joint Committee, under section 14 of the Local Government Act, 1888, to enforce the provisions of the Rivers Pollution Prevention Act, 1876, in relation to parts of the Rivers Irwell and Mersey);
 - (ii.) as to water supply, namely:—Bury and District Water (Transfer) Act, 1900 (constituting the Bury and District Joint Water Board).
-

POPULATION.

At the Census of 1911 the population of Bury was 59,040. The Registrar-General estimated the population for the year 1919 as follows:—For calculation of the death rate 54,248, and for the calculation of the birth rate 56,510.

The death rate population excludes all non-civilian males, whether serving at home or abroad.

The birth rate population is intended to include all the elements of the population contributing to the birth rate.

Several tables, &c., concerning the various wards have been omitted from this report owing to the impossibility of estimating with any accuracy their population.

BIRTHS.

During the year 743 births have been registered within the Borough, of which nine belonged to other districts. By deducting these nine births the number will be reduced to 734, to which must be added four births which have occurred in other districts, thus bringing the corrected number of births to 738.

Of this number 365 were boys and 373 were girls, representing a birth rate of 13.06 per 1,000 of the population, as compared with a rate of 12.73 per 1,000 in the preceding year. The corrected number of births shows an increase of 10 as compared with the previous year, but is 328 below the mean number for the ten years 1909-1918.

Thirty-nine of the above births were illegitimate, as compared with forty-eight in the previous year.

MARRIAGES.

The total number of marriages celebrated in the Bury Union during the year 1919 was 1,474, as compared with 1,009 in 1918, 904 in 1917, 1,050 in 1916, 1,411 in 1915, and 1,215 in 1914. The quarterly returns of the marriages solemnised in the Bury District in the year 1919 are summarised as follows:—

	Church of England	Before Authorised Persons	Before Registrar	Total
March Quarter, 1919	112	35	67	214
June Quarter, 1919	223	82	125	430
September Quarter, 1919...	241	92	119	452
December Quarter, 1919...	215	69	94	378
Totals	791	278	405	1474

DEATHS.

During the year 1,014 deaths have been registered in the Borough. Of the deaths, 196 occurred in the Union Workhouse, 61 in the Dispensary Hospital, 17 in the Florence Nightingale Hospital, and three in the Robinson Kay Home.

Of the 1,014 deaths, 146 were of persons not usually resident in the Borough.

By excluding these 146 deaths of non-residents, the number of deaths is reduced to 868, to which must be added the 48 deaths of Bury residents which have occurred in other towns. The corrected number of deaths of Bury residents is thus brought to 916, which is less by 60 than the previous year, and is the same as the mean number for the ten years 1909-1918.

The death rate is equal to 16.88 per 1,000 of the population, as compared with a rate of 19.13 per 1,000 in the previous year, and compares unfavourably with the rate (13.8 per 1,000) for the 96 great towns of England and Wales.

Of the 916 persons who died, 443 were males and 473 were females.

The large number of deaths is due chiefly to the increased mortality from such diseases as Influenza and Bronchitis. It is pleasing to record, however, the diminution in the mortality from Phthisis, the number of deaths from this disease (48) being 19 below the average for the past ten years.

The following table shows the natural increase or decrease of the population during the past 37 years (1883-1919) :—

Year.	Births.	Deaths.	Natural Increase or Decrease.
1883	1813	1198	615*
1884	1740	1278	462*
1885	1863	1131	732*
1886	1922	1317	605*
1887	1888	1317	571*
1888	1842	1294	548*
1889	1770	1229	541*
1890	1598	1276	322*
1891	1682	1548	134*
1892	1617	1262	355*
1893	1488	1357	131*
1894	1507	1140	367*
1895	1710	1508	202*
1896	1454	1245	209*
1897	1520	1183	337*
1898	1483	1128	355*
1899	1439	1163	276*
1900	1390	1108	282*
1901	1272	975	297*
1902	1214	955	259*
1903	1329	1030	299*
1904	1383	1003	380*
1905	1271	964	307*
1906	1336	1001	335*
1907	1336	939	397*
1908	1377	939	438*
1909	1226	965	261*
1910	1235	868	367*
1911	1190	954	236*
1912	1230	838	392*
1913	1187	919	268*
1914	1162	964	198*
1915	1026	946	80*
1916	900	902	2†
1917	776	829	53†
1918	728	976	248†
1919	738	916	178†
Total.....	51642	40565	11077*

* Increase. † Decrease.

Causes of, and Ages at Death during the Year 1919.

Causes of Death.	Nett Deaths at the subjoined Ages of Residents, whether occurring within or without the District.										Total Deaths whether of Residents or Non-residents in Institutions in the District.
	All ages.	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.		
All Causes (Certified	898	66	19	23	36	44	110	271	329	278	
Uncertified ..	18	2	..	..	..	..	..	5	11	..	
Enteric Fever	1	..	..	..	..	..	..	1	..	2	
Smallpox	..	..	..	..	..	..	..	..	..	..	
Measles	1	..	..	1	..	..	..	..	..	..	
Scarlet Fever	..	..	..	..	..	..	..	..	..	5	
Whooping Cough	..	..	..	..	..	..	..	..	..	..	
Diphtheria and Croup	3	..	..	1	2	..	..	..	..	7	
Influenza	133	4	3	8	9	13	32	42	22	13	
Erysipelas	..	..	..	..	..	..	..	..	..	..	
Phthisis (Palmonary Tuberculosis)	48	..	1	..	1	13	15	16	2	3	
Tuberculous Meningitis ..	..	..	..	..	..	..	..	..	..	..	
Other Tuberculous Diseases	20	1	..	1	5	2	6	4	1	7	
Cancer, Malignant Disease	66	..	..	..	..	..	4	37	25	20	
Rheumatic Fever	..	..	..	..	..	..	..	..	..	..	
Meningitis	..	..	..	..	..	..	..	..	..	..	
Organic Heart Disease ..	109	..	..	..	1	4	10	41	53	18	
Bronchitis	135	4	3	..	3	1	3	40	81	20	
Pneumonia (all forms) ..	60	6	7	6	6	1	8	17	9	12	
Other Diseases of Respiratory Organs	5	..	..	..	1	..	2	2	..	1	
Diarrhoea and Enteritis ..	10	3	..	2	..	..	..	3	2	8	
Appendicitis and Typhlitis	5	..	..	..	2	2	1	..	..	5	
Cirrhosis of Liver	..	..	..	..	..	..	..	..	..	..	
Alcoholism	1	..	..	..	..	..	..	1	..	1	
Nephritis and Bright's Disease	7	..	..	..	..	..	3	2	2	1	
Puerperal Fever	2	..	..	..	..	..	2	..	..	1	
Other accidents & Diseases of Pregnancy and Parturition	3	..	..	..	..	1	2	..	..	2	
Congenital Debility and Malformation, including Premature Birth ..	38	37	1	..	..	..	..	..	..	4	
Violent Deaths, excluding Suicides	26	2	..	3	2	2	8	7	2	24	
Suicides	9	..	..	..	..	..	2	5	2	..	
Other Defined Diseases ..	146	7	3	1	4	4	12	56	59	58	
Diseases Ill-defined or Unknown	88	4	1	..	..	1	..	2	80	66	
	916	68	19	23	36	44	110	276	340	278	

Vital Statistics of Whole District during 1919 and Previous Years.

YEAR	Population estimated to middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		Transfer- able Deaths of Non- residents registered in the District.	Transfer- able Deaths of Residents not registered in the District.	NETT DEATHS BELONGING TO THE DISTRICT.			
		Un- corrected Number.	Nett.	Number.	Rate	Number.			Rate per 1000 nett Births.	Number	Rate.	
1914 ...	59213	1168	1162	19.62	1059	17.88	137	42	146	125	964	16.28
1915 ...	54773	1026	1026	17.33	1086	19.83	166	26	118	115	946	17.27
1916 ...	53463	907	900	15.47	1040	19.45	169	31	120	133	902	16.87
1917* ...	51851	787	776	13.43	939	18.11	162	52	72	93	829	15.99
1918 ...	51851	733	728	12.73	1096	21.13	164	44	80	110	976	19.13
1919 ...	54248	748	738	13.06	1014	18.69	146	48	68	92	916	16.88

Area of District in acres (land and inland water) 5925.

Total population at all ages 59040

Total families or separate occupiers ... 13919

Average number of persons per house ... 4.24

At Census of 1911.

Mortality at Different Age Periods.—Of the 916 deaths :—

68	occurred in children under one year of age....	7.42	per cent.
19	occurred between the ages of 1 and 2 years...	2.08	„
23	„ „ 2 and 5 years...	2.51	„
36	„ „ 5 and 15 years...	3.93	„
44	„ „ 15 and 25 years...	4.80	„
110	„ „ 25 and 45 years...	12.01	„
276	„ „ 45 and 65 years...	30.13	„
340	occurred in persons over 65 years of age.....	37.12	„
		100.00	

Infectious Diseases (including Influenza).—The percentage of deaths from the infectious diseases (16.15) is 3.94 per cent. lower than in the preceding year. These high percentages are due chiefly to the increase in the number of deaths from Influenza. It will be seen on reference to the appended table, the percentage of deaths from these diseases is fairly high as compared with the percentage for the previous years :—

	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
Percentage	8.06	13.52	6.92	11.97	8.92	10.78	6.43	6.51	20.09	16.15

Diseases of the Respiratory System (excluding Phthisis):—200 deaths have been attributed to various diseases of the respiratory organs, which is an increase of eight deaths as compared with the preceding year :—

Of these deaths, 135 (or 67.50 per cent. of the total 200) were attributed to Bronchitis, being an increase of 46 deaths, as compared with the number (89) in the preceding year. The following table shows the age periods at which deaths from Bronchitis were recorded :—

Under 1	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 upwards.
4	3	—	3	1	3	40	81

Pneumonia caused 60 deaths, as compared with 100 deaths in the previous year. Of this number, 28 cases were due to Broncho Pneumonia and 32 to other forms. The following table shows the ward distribution and the age periods at which these deaths were recorded :—

Wards.	Under 1.	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 up-wards	Totals.
Moorside	2	1	2	3	—	1	2	4	15
East	1	4	2	1	1	1	6	—	16
Church	—	—	1	1	—	1	3	2	8
Redvales	—	—	—	1	—	2	2	2	7
Elton	3	2	1	—	—	3	4	1	14
Totals.....	6	7	6	6	1	8	17	9	60

Phthisis caused 48 deaths, making a total of 248 deaths from respiratory diseases, as compared with 258 deaths in the previous year.

Deaths from Respiratory Diseases in each of the preceding ten years :—

	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918
Bronchitis.....	117	77	84	75	91	115	97	104	98	89
Pneumonia	104	56	72	64	83	98	95	80	77	100
Oth'r Respirat'ry Diseases	7	2	15	7	3	7	12	9	5	3
Phthisis	71	73	57	77	60	65	76	49	75	66
Totals.....	299	208	228	223	237	285	280	242	255	258

LONGEVITY.

Deaths of Persons over 60 Years of age.—The deaths of persons over 60 years of age were equal to 46.07 of the total deaths, as compared with 37.30 per cent. in the preceding year.

The number of deaths attributed to old age was 81, an increase of 11 as compared with the previous year. The following table gives the number of deaths attributed to old age, and the percentage to the total number of deaths; also a comparison with each of the ten preceding years:—

YEAR.	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
No. of Deaths	94	98	92	75	68	85	85	83	77	70	81
Per cent. of Total Deaths	9.74	11.29	9.64	8.95	7.40	8.82	8.99	9.20	9.29	7.17	8.84

INQUESTS DURING THE YEAR 1919.

During the year the causes of death of 59 Bury residents were investigated by the District Coroner (Mr. S. F. Butcher). In 41 instances it was found advisable to hold an inquest, and of this number 27 related to the bodies of males and 14 to the bodies of females. In 18 cases a public enquiry was dispensed with.

The following is a classification of the sex and age periods:—

	Males.	Females.
Under one year of age	3	3
Over one and under two years of age...	—	—
Over two and under five years of age ...	3	—
Over five and under 15 years of age... ..	—	—
Over 15 and under 25 years of age	2	—
Over 25 and under 45 years of age... ..	7	3
Over 45 and under 65 years of age... ..	11	4
Over 65 years of age	1	4
	—	—
Total	27	14
	—	—

The verdicts of the Coroner's Juries, and the wards to which the deceased belonged, are shown in the table :—

	Moorside.	East.	Church.	Redvales.	Elton.
Natural Causes	5	1	1	1	4
Accident	5	6	1	3	6
Suicide	2	—	1	—	4
Found drowned	—	—	—	—	—
Misadventure... ..	—	—	1	—	—

Among those certified as due to Natural Causes, four deaths were returned as being due to Syncope or diseases of the Heart.

Of those due to Accident, seven were due to accidents while at work, seven to falls, one to burns, two to drowning, three to suffocation, and one resulted from an accident on the highway.

Of the Suicides, three by drowning, two by hanging, one by cut throat, and one by shooting.

UNCERTIFIED DEATHS.

The number of uncertified deaths (i.e., deaths which had not been certified by a medical man, or cases in which the Coroner considered an inquest unnecessary) was 18, twelve being of males and six of females.

The following shows the age periods, and the wards to which the deceased belonged :—

	Ages 0-1	1-2	2-5	5-15	15-25	25-45	45-65	65 upwards
Moorside ..	—	—	—	—	—	—	1	3
East ...	—	—	—	—	—	—	—	2
Church	—	—	—	—	—	—	1	—
Redvales ..	2	—	—	—	—	—	2	2
Elton ...	—	—	—	—	—	—	1	4

INFANT MORTALITY.

Number of births during the year	738
Number of deaths of children under one year of age...	68
Infant Mortality Rate, per 1,000 births	92

The Infant Mortality Rate for the year 1919 shows a decrease of 18 compared with the corresponding rate for 1918, and is 33 below the mean rate for the ten preceding years. It is the lowest rate recorded in the Borough.

During the summer months of the year special visits were paid by the Health Visitor to the homes of the babies who were being bottle-fed, in order to advise mothers where necessary on the feeding and care of their infants during this period of the year. In addition close attention was also given to scavenging, and the frequent removal of household refuse, as the latter branch of work bears an important part in the prevention of summer Diarrhoea.

On reference to the table on page 14 it will be seen that 23 deaths (or 33.82 per cent.) occurred during the first week after birth, and 37 (or 54.41 per cent.) occurred during the first month.

Deaths from Zymotic diseases show a decrease as compared with the previous year, viz., three, compared with 11 deaths in 1918.

Deaths from Respiratory diseases show a decrease of 11 as compared with the previous year, four being due to Bronchitis, four to Broncho-Pneumonia, and two to Pneumonia.

The following table shows the number of weaths of infants per 1,000 births in Bury during the past eleven years:—

1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	Average 10 years	1919
129	124	168	112	141	125	115	133	93	110	125	92

Infant Mortality for the whole of England and Wales (1919)	89
For the 96 Great Towns	93
For the 148 Smaller Towns	90
For Bury	92

From the list below it will be observed that as regards Infant Mortality Bury compares favourably with other Lancashire towns.

Infant Mortalities.—Chief Lancashire Towns:—

Accrington	115	Bury	92
Ashton-under-Lyne..	119	Darwen	116
Blackburn	93	Oldham	95
Bolton	88	Rochdale	120
Bootle	94	St. Helens	123
Burnley	118	Wigan	117

CAUSES OF DEATH.—Zymotic Diseases have caused three deaths, all being due to Diarrhœa. The number of infant deaths from Diarrhœa during the previous ten years in Bury is apportioned as follows:—5 in 1918, 8 in 1917, 17 in 1916, 15 in 1915, 23 in 1914, 37 in 1913, 11 in 1912, 45 in 1911, 19 in 1910, and 12 in 1909.

Respiratory Diseases.—These were responsible for 10 deaths (as compared with 21 deaths in 1918), and of these four were due to Bronchitis, four to Broncho Pneumonia, and two to Pneumonia (other forms).

Tuberculous Diseases.—The number of deaths was two, as compared with two deaths in 1918, one in 1917, two in 1916, one in 1915, six in 1914, three in 1913, five in 1912, six in 1911, and seven in 1910.

Remaining Causes.—The chief remaining causes of death were:—

Premature Birth	19
Convulsions	5
Atrophy, Debility, and Marasmus	12
Influenza	4

An analysis of the deaths at the various age periods is given on page 14.

Inquests.—During the year the Coroner (Mr. S. F. Butcher) enquired into the cause of death in six instances (two males and four females), the ages of the children being 5 minutes, 2 days, 3 days, 2 months, 3 months, and 7 months. The causes of death were returned as follows: "Accidents" 2, "Natural Causes" 4.

Uncertified Deaths.—In two instances the Coroner deemed the holding of an inquest unnecessary, the cause of death in each case being returned as due to "Natural Causes."

Illegitimacy.—5.3 per cent. of the total births were illegitimate, and of the total deaths of children under one year of age 19.10 per cent. were of illegitimate children, as compared with 7.50 per cent. in 1918. The infant mortality among legitimate children was 79 per 1,000 births, whereas among illegitimate children it was 333 per 1,000 births.

Occupation of Mother.—Of the mothers of the 68 fatal cases :—

- 41 were occupied only with house duties (60.29 per cent.).
- 27 were engaged as either mill workers or otherwise employed away from home (39.71 per cent.).

The following table shows the number of the mothers of fatal cases who are employed outside the home :—

Year	Deaths	Infant Mortality	Mothers occupied		Doubtful
			(a) Outside Home	(b) At Home	
1901	213	166	60 (28%)	117	36
1902	156	128	41 (26%)	106	9
1903	231	174	76 (33%)	135	20
1904	226	163	71 (31%)	128	27
1905	184	146	71 (38%)	113	—
1906	236	177	139 (59%)	97	—
1907	181	135	25 (62%)	56	—
1908	178	129	63 (35%)	115	—
1909	159	129	93 (58%)	66	—
1910	154	124	100 (58%)	54	—
1911	200	168	123 (61%)	77	—
1912	138	112	84 (60%)	54	—
1913	168	141	88 (52%)	80	—
1914	146	125	65 (44%)	81	—
1915	118	115	39 (33%)	79	—
1916	120	133	37 (31%)	83	—
1917	72	93	39 (54%)	33	—
1918	80	110	32 (40%)	48	—
1919	68	92	27 (39%)	41	—

Insurance.—Nine, or 13.32 per cent., of the infants who died were insured, as compared with 16.25 per cent. in the year 1918.

Influence of Feeding on Infant Mortality.—During the year the following information has been obtained as to the method of feeding of 702 of the 717 infants notified. Of these:

597	were breast-fed,	amongst which were 17 deaths, i.e., 2.85%
78	„ bottle-fed „ „	13 „ „ 16.67%
23	„ breast and bottle-fed „	3 „ „ 13.04%
4	„ spoon-fed „	3 „ „ 75.00%
15	died within 24 hours of birth, or no particulars could be obtained.	

Of the 68 deaths which have been recorded of children under one year of age, the following is an analysis of the nature of feeding:—

19, or 27.94 per cent., were bottle-fed.

23, or 33.83 per cent., were fed naturally.

5, or 7.35 per cent., were partly breast and partly bottle fed.

3, or 4.41 per cent., were spoon-fed.

18, or 26.47 per cent., died almost immediately after birth.

District Mortality.

		Infant Deaths.	Births.	Deaths per 1000 births.
Bury North	{ Moorside Ward... ..	9	199	45
	{ East Ward	16	142	112
Bury South	{ Church Ward	11	99	111
	{ Redvales Ward... ..	13	112	116
Elton Ward		19	186	102
Whole Borough		68	738	92

NOTIFICATION OF BIRTHS ACT, 1907.

The above Act was adopted at a meeting of the Town Council held on February 8th, 1908, and the consent of the Local Government Board having been obtained, came into operation on April 8th, 1908. The Act was, however, extended to all districts on September 1st, 1915.

Under the Notification of Births Act of 1907, 752 births were notified, 618 being notified by midwives, 96 by medical practitioners, and 38 by parents or other persons. Of the total number of births notified, 35 were returned as being "still-born," of which 28 were notified by midwives and seven by medical practitioners.

The effect of the above measure cannot but tend to have a beneficial effect from a health point of view. Especially is this the case with regard to the feeding and care of infants, as the Lady Inspector is thus able at an earlier stage, where necessary, to give such information with regard to feeding, &c., as may be desired.

MIDWIVES' ACT.

The number of midwives on the register at the end of the year was 20, an increase of two on the total at the end of the year 1918. Speaking generally, they have complied with the rules and regulations according to the Midwives' Act.

The following is a list of Midwives on the Register at the end of the year:—

- *Ashworth, Mrs. Emma Louisa, 47, Taylor Street.
- *Palmer, Mrs. Lydia Ada, Rowlands, Summerseat.
- *Ingham, Mrs. Jane Parkinson, 144, Heywood Street.
- *Sharples, Mrs. Annie, 229, Booth Street, Tottington.
- *Smart, Mrs. Eleanor, 56, Parsourage Street.
- *Busby, Mrs. Isabella E., 23, Charles Street, Elton.
- *Millwood, Mrs. Harriet Sophia, 3, Newbold Street.
- *Chaffer, Mrs. Emma, 7, Nelson Street.
- *Graham, Miss Hannah A., Four Lane Ends, Whitefield.

LIST OF MIDWIVES ON REGISTER—*continued.*

- *Davis, Miss Maude, Union Hospital.
- *Hope, Miss Elizabeth L., „
- *Jones, Miss Katherine, „
- *Whamond, Miss Elsie, „
- Carrington, Mrs. Mary Jane, 4, Richard Burch Street.
- Pickup, Mrs. Mary Ann, 1, Chesham Road.
- Royle, Mrs. Bridget, 3, Livsey Street.
- Morrison, Mrs. Louisa, 52, Manchester Old Road.
- Cotterill, Mrs. Sophia, 108, Wash Lane.
- Berry, Mrs. Elizabeth A., 7, Statter Street, Hollins.
- Snowdon, Mrs. Elizabeth, 12, Hall Street, Summerseat.

* Trained and certified by examination.

Some of the midwives still find difficulty in the use of the clinical thermometer, and some being unable to write have to rely upon others to enter up their registers; these latter, fortunately few in number, are untrained and uneducated. The standard of midwifery work now carried out in Bury shows a higher state of efficiency, due, doubtless, to the supervision carried out under the provisions of the Midwives' Act of 1902 and 1918.

During the year 213 notices were received from midwives requesting the help of medical practitioners.

STILL BIRTHS.—Seven still births were notified by medical men, and 28 by midwives, during 1919, a decrease of 4 on the number notified during 1918.

MIDWIVES' ACT, 1918.

The above Act came into force on January 1st, 1919, and Section 14 requires the Local Authority to pay the practitioner's fee when called in by a midwife in an emergency, according to a scale fixed by the Local Government Board. The Local Authority is empowered to recover the fee from the patient, or her husband, or other person liable to maintain her, unless it is shown to the satisfaction of the Authority that the patient or her husband or such other person is by reason of poverty unable to pay such fee.

MATERNITY AND CHILD WELFARE.

MOTHERS' WELCOME.

As stated in last year's report, the Bury Co-operative Women's Guild opened the "Mothers' Welcome" at 12, John Street, in November, 1916. The building contains consulting room, play room for children, tea room for mothers, weighing room, lavatories, &c. The Welcome is open every Monday and Thursday afternoon.

In April this year the Centre was taken over by the Corporation, but the voluntary Committee also continued to assist with the work.

At the end of the year there were 863 children on the register and 4,118 attendances had been made. There were also 58 expectant mothers on the register, with a total attendance of 117.

Full records are kept of each child, and when considered necessary the child is examined by the Medical Officer in attendance. The Health Visitors have attended on 168 occasions. No treatment is carried out at the institution, but where the child requires medical attention the mother is directed to consult her own medical man.

Table showing the number of cases of Infectious Disease notified from 1900 to 1919.

DISEASE.	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
Smallpox	5	..	37	59	25	33	1	..	..	..	30	..	..	..	..	1	..	..	..	..
Scarlet Fever	432	179	156	156	261	197	90	40	98	389	564	220	139	256	250	156	112	85	50	27
Diphtheria and Membranous Group	118	78	182	107	73	55	35	48	52	59	44	44	13	66	59	51	48	165	114	115
Enteric Fever.....	40	47	33	37	22	33	33	18	15	9	18	25	6	7	8	8	5	7	5	7
Continued Fever..	11	9	5	2	1	3	3	1	2	..	..	..	..	1	..	..	..	..	..	..
Puerperal Fever..	15	7	11	2	11	4	11	14	9	5	4	6	6	6	4	3	2	4	2	3
*Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	135	1082	663	235	..
Erysipelas	34	15	20	20	10	46	42	35	26	38	40	32	41	28	36	48	29	18	16	28
†Chickenpox	..	..	..	..	..	79	..	..	..	..	..	..	..	..	..	223	103	138	97	..
Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..
Cerebro-Spinal Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ophthalmia Neonatorum	..	..	..	..	..	..	..	..	..	..	..	..	1	4	15	15	22	21	6	11
‡Pneumonia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	149
‡Malaria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	23
‡Dysentery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
TOTALS.....	555	335	444	383	403	450	215	156	202	500	670	357	200	403	373	281	577	1485	939	597

* Made notifiable on Jan. 1st, 1916. † Made notifiable on Mar. 23rd, 1916. ‡ Made notifiable Mar. 1st, 1919.

Cases of Infectious Disease notified during the Year 1919.

Notifiable Disease.	Cases notified in whole District.								Total Cases notified in each locality.			No. of Cases Removed to Hospital from each locality			Total Cases Removed to Hospital
	At all Ages	At Ages—Years.							Registration Sub-District.			North.	South.	Elton.	
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards.	North.	South.	Elton.				
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	115	..	21	70	13	11	..	..	45	20	50	44	16	47	107
Erysipelas	28	..	..	3	3	11	7	4	17	5	6	..	..	..	..
Scarlet Fever	27	..	7	18	2	..	..	..	9	13	5	6	9	5	20
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	7	..	..	1	2	3	1	..	..	1	6	..	1	6	7
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	3	..	..	..	..	3	..	..	1	1	1	..	..	1	1
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ophthalmia Neonatorum..	11	11	..	..	..	..	..	..	3	4	4	..	..	..	..
Measles	235	3	107	119	5	1	..	..	125	97	13	..	..	..	1
Chicken-pox	97	7	44	42	2	2	..	..	38	12	47	..	..	..	..
Pneumonia	149	3	12	27	24	43	30	10	55	58	36	..	..	..	..
Malaria	23	..	..	..	6	15	1	..	9	6	8	..	..	..	..
Dysentery	2	..	..	..	..	2	..	..	2	..	..	..	..	..	..
TOTALS	697	24	191	280	57	92	39	14	304	217	176	50	26	59	136

Number of Cases of Infectious Disease notified in each Month of the Year.

	Scarlet Fever.	Diphtheria & Membranous Group.	Enteric Fever.	Puerperal Fever.	Erysipelas.	Measles.	Chicken-pox.	Ophthalmia Neonatorum.	Pneumonia.	Malaria.	Dysentery.
January	..	5	..	..	1	..	2	..	..	..	..
February.....	..	2	..	..	..	..	10	2	..	..	..
March	1	1	..	..	1	6	14	..	97	2	1
April	1	3	..	..	..	3	8	1	11	1	..
May	1	11	..	1	2	9	5	2	8	3	1
June	2	4	..	..	2	11	7	..	6	2	..
July	2	17	..	..	6	5	4	1	6	2	..
August	1	14	..	..	..	8	4	1	7	3	..
September	1	7	4	..	1	8	6	..	3	1	..
October	5	12	2	..	3	46	9	..	3	3	..
November	4	16	1	1	3	52	23	3	5	5	..
December	9	23	..	1	9	87	5	1	3	1	..
TOTALS.....	27	115	7	3	28	285	97	11	149	23	2

NUMBER OF CASES OF INFECTIOUS DISEASE NOTIFIED IN EACH
QUARTER OF THE YEAR 1919.

Quarter.	Scarlet Fever.	Diphtheria & Membran- ous Croup	Ent- eric Fever.	Puer- peral Fever.	Erysi- pelas.	Oph- thal. Neon- tor'm.	Meas- les.	Chick- enpox.	Pneu- monia	Mal- aria.	Dys'n- try.
1st	1	8	...	...	2	2	6	26	97	2	1
2nd	4	18	...	1	4	3	23	20	25	6	1
3rd	4	38	4	...	7	2	21	14	16	6	...
4th	18	51	3	2	15	4	185	37	11	9	...
Totals	27	115	7	3	28	11	235	97	149	23	2

WARD DISTRIBUTION OF INFECTIOUS DISEASES, 1919.

	Scarlet Fever.	Diphtheria & Membran- ous Croup.	Ent- eric Fever.	Puer- peral Fever.	Erysi- pelas.	Oph- thal. Neon- tor'm.	Meas- les.	Chick- enpox.	Pneu- monia	Mal- aria.	Dys'n- try.
Moorside	7	31	...	1	11	2	91	28	29	5	...
East	2	14	...	...	6	1	34	10	26	4	2
Church	4	5	...	1	1	3	18	6	26	2	...
Redvales	9	15	1	...	4	1	79	6	32	4	...
Elton	5	50	6	1	6	4	13	47	36	8	...
TOTALS	27	115	7	3	28	11	235	97	149	23	2

CASES REMOVED TO THE FLORENCE NIGHTINGALE HOSPITAL FROM
THE VARIOUS WARDS.

	Scarlet Fever.	Diphtheria & Membran- ous Croup.	Enteric Fever.	Continued Fever.	Puerperal Fever.	Poliomy- elitis.	Erysip- elas.	Measles.
Moorside ...	5	31	...	...	...	...	...	...
East	1	13	...	...	...	...	...	...
Church	4	5	...	...	...	...	...	...
Redvales	5	11	1	...	...	...	...	1
Elton	5	47	6	...	1	...	...	...
TOTALS	20	107	7	...	1	...	...	1

SCARLET FEVER.

Number of cases notified	27
Number of deaths	0

The number of cases notified shows a decrease of 23 as compared with the number (50) notified in the previous year. It will be seen on referring to the undermentioned table that only one case was notified during the first quarter of the year, but in the fourth quarter 18 cases were notified. The notifications are less by 199 than the average number (226) notified during the ten preceding years (1909-1918).

QUARTERLY INCIDENCE.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Notifications	1	4	4	18
Deaths	—	—	—	—

WARD DISTRIBUTION.

	Moorside	East	Church	Redvales	Elton
Notifications... ..	7	2	4	9	5
Deaths	—	—	—	—	—

AGE DISTRIBUTION.

The youngest case notified was two years old, and the oldest 21 years.

	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	over 65	Total
Notifications	—	7	18	2	—	—	—	27
Deaths... ..	—	—	—	—	—	—	—	—

ADMISSION TO HOSPITAL.—Of the 27 cases notified, 20, or 74.07 per cent., were removed to the Florence Nightingale Hospital.

SCHOOL CLOSURE.—It was not found necessary to close any of the schools in the Borough on account of this disease, as in no instance was a school infection sufficiently marked to call for any other measure than exclusion of scholars.

Throughout the course of the year the disease was generally of a very mild type.

DIPHTHERIA AND MEMBRANOUS CROUP.

Number of cases notified	115
Number of deaths	3

One hundred and fifteen cases of Diphtheria and Membranous Croup have been notified during the year, as compared with 114 during the year 1918, 165 in 1917, 48 in 1916, 51 in 1915, 59 in 1914, 66 in 1913, 13 in 1912, 44 in 1911, 44 in 1910, 59 in 1909, and 52 in 1908.

Three deaths have been recorded, representing a mortality rate of 0.05 per 1,000, as compared with ten deaths and a rate of 0.18 per 1,000 in the preceding year.

Of the 115 cases, 107 were removed to the Florence Nightingale Hospital. The admissions to hospital constitute 93.04 per cent. of the total cases notified, as compared with 96.50 per cent. in 1918.

Of the 107 cases admitted to the hospital, two, or 1.87 per cent., proved fatal. Of the cases treated at home one, or 12.50 per cent., died.

The increase in the number of notifications of this disease is chiefly due to an outbreak in the Elton portion of the Borough which occurred during the last three months of the year.

MONTHLY INCIDENCE.

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
5	2	1	3	11	4	17	14	7	12	16	23	115

QUARTERLY INCIDENCE.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter.	Total.
Cases	8	18	38	51	115
Deaths	1	1	1	—	3

WARD DISTRIBUTION.

	Moorside	East	Church	Redvales	Elton	Total.
Cases	31	14	5	15	50	115
Deaths	—	1	—	—	2	3
Removed to hospital	31	13	5	11	47	107

NOTIFICATIONS AND DEATHS AT DIFFERENT AGES.

	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	Total
Cases... ..	—	21	70	13	11	—	115
Deaths	—	1	2	—	—	—	3

ANTITOXIN.—Towards the end of the year 1910 sanction was obtained from the Council to supply the medical practitioners of the district with Antitoxin free, for patients suffering from Diphtheria within the Borough. It is gratifying to note that not only the curative but the prophylactic use of the serum is practised by medical men in the Borough, who have under their care the families whose members have been infected or exposed to infection.

BACTERIOLOGICAL EXAMINATIONS.—73 swabs from doubtful cases were sent for bacteriological examination to the Public Health Laboratory, Manchester, with the following results:—

- 10 gave positive results for Diphtheria bacilli.
- 63 gave negative results.

ENTERIC FEVER.

Cases notified	7
Deaths	1

Notifications of seven cases of Enteric Fever were received at the Health Office during the year, as compared with five cases in the preceding year. The following are the number of cases which have been notified during the last ten years:—

1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
18	25	6	7	8	8	5	7	5	7

All the seven cases were removed to the Florence Nightingale Hospital. One of the notified cases, which was being treated in Hospital, proved fatal. The monthly incidence was as follows:—

	Jan.	Feb.	Mar.	Apr.	May	Jun.	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Notifications	—	—	—	—	—	—	—	—	4	2	1	—	7
Deaths..	—	—	—	—	—	—	—	—	—	1	—	—	1

AGE PERIODS.

	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	over 65	Total
Notifications	—	—	1	2	3	1	—	7
Deaths	—	—	—	—	—	1	—	1

WARD DISTRIBUTION.

	Moorside.	East.	Church.	Redvales.	Elton.	Total
Notifications... ..	—	—	—	1	6	7
Deaths	—	—	—	—	1	1

SEX INCIDENCE.—Of the cases notified, there were three males and four females.

SANITARY CONDITION OF INFECTED PROPERTY.—The general sanitary conditions of the dwellings and surroundings of the seven cases are summarised in the table on page 34.

From this it will be seen that four of the seven infected houses were provided with privy middens, and three with fresh water closets.

BACTERIOLOGICAL TESTS.—Specimens of blood of 10 cases of suspected Typhoid Fever were sent to the Public Health Laboratory, Manchester, with the following results:—

Two gave positive results to Widal's test.

Eight gave negative results.

WATER SUPPLY.—The water supply was directly from the public service in all the cases, and in no case was there any evidence of pollution.

MILK SUPPLY.—In no case was infection by this channel discovered.

SHELLFISH.—In no case was there a history of shellfish having been eaten.

PREVENTIVE MEASURES.—These, for some years now, have consisted generally in (i.) Isolation (a) at home, or (b) in hospital. (ii.) Disinfection or destruction of stools. In the case of patients treated at home, special pails are supplied by the Health Department for the reception of the excreta of patients. The pails are removed frequently and their contents burnt at the destructor. (iii.) Thorough disinfection of house, bedding, &c. (iv.) Disinfection of sanitary conveniences attached to the infected houses. (v.) Examination of drains, and defects, if found, are remedied. (vi.) Conversion of midden ash-pits, where these exist in connection with infected houses, to the water-carriage system. The last remedy is, in my opinion, a most important one in the prevention of the future spread of the disease. (vii.) The possibility of individuals acting as "carriers" of the infection is kept in mind. As these individuals may be an active source of infection to others, without themselves actually suffering from the disease, their supervision and education receive the necessary attention.

CASES OF ENTERIC FEVER.

No.	Sex.	Age.	Cases in same house or vicinity.	Nature of Closet Accommodation.	Condition of			REMARKS.
					Yard.	Drains.	Closet or Ashpit.	
1	F.	12	See Cases Nos. 2, 3 and 4.	P. & A.	Good order	Good	Ashpit cleared every month	Paid a visit to Morecambe three weeks previously
2	F.	20	See Cases Nos. 1, 3 and 4.	P. & A.	Good order	Good	Ashpit cleared every month	
3	M.	60	See Cases Nos. 1, 2 and 4.	W.C.	Good order	Good	Ashbin cleared weekly	Hens kept in yard, unpenned.
4	F.	25	See Cases Nos 1, 2 and 3.	W.C.	Good order	Good	Ashbin cleared weekly	
5	F.	25	None	P. & A.	Good order	Good	Ashpit cleared every six weeks	
6	M.	17	None	P. & A.	Good order	Good on surface	Ashpit cleared every six weeks	
7	M.	37	None	W.C.	Good order	Good on surface	Ashbin cleared weekly	

W.C.—Water Closet.

P. & A.—Privy Ashpit or Privy Midden.

PUERPERAL FEVER.

Three cases of Puerperal Sepsis have been notified during the year, two of the cases proving fatal, as compared with six cases and one death in 1918. One of the cases was treated in the Florence Nightingale Hospital.

ERYSIPELAS.

Number of cases notified	28
Number of deaths	0

During the year 28 cases of Erysipelas were notified, being an increase of 12 cases as compared with the number (16) in the previous year. No deaths were attributed to this disease, as compared with no deaths in the previous year.

WARD DISTRIBUTION.

	Moorside	East	Church	Redvales	Efton	Total
Notifications... ..	11	6	1	4	6	28

QUARTERLY INCIDENCE.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Notifications	2	4	7	15	28

AGE INCIDENCE.

	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 up.	Total
Notifications	—	—	3	3	11	7	4	28

SEX.—As last year the incidence was greatest amongst females, 19 females and 9 males being attacked.

The regions of the body affected were as follows:—

Face	21 cases.
Legs and arms	7 „

The majority of the cases occurred secondarily to some neglected injury, as a cut, scratch, or bruise.

On notification of the disease to the Health Department a thorough inspection of the premises is made, this frequently bringing to notice sanitary defects which otherwise would have escaped observation.

CEREBRO-SPINAL FEVER AND ACUTE POLIOMYELITIS.

No cases of Cerebro-Spinal Fever or Acute Poliomyelitis have been notified during the year under review.

OPHTHALMIA NEONATORUM.

Eleven cases of this disease have been notified during the year, as compared with six cases in the previous year. The ages of the children were as follows:—One two days, two three days, and one each four days, six days, eleven days, thirteen days, fourteen days, eighteen days, twenty-one days, and twenty-three days.

The wards in which the cases occurred were: Moorside 2, East 1, Church 3, Redvales 1, and Elton 4.

CHICKEN-POX.

Owing to several outbreaks of Smallpox in the country, it was found advisable to make Chicken-pox a compulsorily notifiable disease in the Borough on March 29th, 1916.

In consequence the majority of cases occurring in the town have been brought to the notice of the Health Department, and have thus been able to be kept under observation.

	1916	1917	1918	1919
No. of cases notified by doctors	223	103	138	97
„ „ „ school authorities	232	148	229	139
„ „ verified	191	111	155	136

No deaths have occurred from the disease during four years.

SMALLPOX.

No case of Smallpox occurred during the year; the last case notified in the Borough was on March 15th, 1916.

SMALLPOX AND VACCINATION.

Return showing the number of births, deaths (under one year), vaccinations, conscientious objections, and the number vaccinated for the years ending 1916, 1917, 1918, and 1919.

BOROUGH OF BURY.

	Totals 1916	Totals 1917	Totals 1918	Totals 1919
Births	954	825	748	786
Vaccinated	330	249	238	255
Insusceptible of Vaccination	2	2	3	0
Conscientious Objection Certificates.	449	399	398	388
Dead, Unvaccinated	91	53	45	64
Postponed by Medical Certificate ...	15	6	12	13
Removal to districts known	7	6	0	4
Removal to districts unknown	19	8	6	3
Unaccounted for	41	102	46	29

Table showing percentage of Vaccination, and also comparison with the years 1916, 1917, 1918 :—

	1916	Year ending December 31st.	1917	1918	1919
Number of Births ...	954	825	748	786	
Vaccinated... ..	34.59	30.18	31.82	32.44	
Con. objection Cert's...	47.06	48.36	53.21	49.37	
Unaccounted for ...	4.29	12.36	6.15	3.69	

PUBLIC HEALTH (Measles and German Measles) REGULATIONS, 1915.

By order of the Ministry of Health the above Regulations came into force on the 1st day of January, 1916, and provided for the notification and treatment of Measles and German Measles. The Regulations were rescinded by the Ministry of Health on December 31st, 1919.

The following table gives the number of notifications, deaths, &c., during the four years :—

	1916	1917	1918	1919
Number of cases notified... ..	135	1082	668	235
„ removed to Hospital	0	0	0	1
„ of deaths... ..	1	5	11	1
Number of cases notified by School Authorities	216			
Number of deaths	1			

One death occurred from Measles during the year, representing a rate of 0.02 per 1,000 of the population, as compared with 11 deaths and a rate of 0.21 per 1,000 during the year 1918.

PRECAUTIONARY MEASURES.—The following precautionary measures are adopted in dealing with the outbreaks of Measles :—

(i.) Notification of the disease by School Teachers on printed forms supplied by the Health Department. (216 cases of Measles were thus notified during the year, and of these 197 were verified by the Health Department.)

(ii.) Each case is visited, where possible, by the Health Visitor, who leaves handbills, and gives advice as to the precautions to be taken in each instance.

(iii.) Closure of Schools, chiefly the Infants' Departments, affected by the disease. A request is sometimes made also to the Sunday School Authorities to have this portion of the School closed during the period of closure of the Day School.

(iv.) Disinfection of houses affected, by means of formalin spray, &c., where consent can be obtained.

(v.) Thorough disinfection of affected Schools, with special attention to books, desks, &c.

THE PUBLIC HEALTH (Pneumonia, Malaria, Dysentery, &c.) REGULATIONS, 1919.

These regulations came into force on March 1st, 1919, and up to the end of the year the undermentioned number of notifications have been received:—

AGE PERIODS.

	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 up.	All ages
Pneumonia ...	3	12	27	24	43	30	10	149
Malaria ...	—	—	—	6	16	1	—	23
Dysentery ...	—	—	—	—	2	—	—	2

WARD DISTRIBUTION.

	Moorside	East	Church	Redvales	Elton	Whole Borough.
Pneumonia ..	29	26	26	32	36	149
Malaria ...	5	4	2	4	8	23
Dysentery ...	—	2	—	—	—	2

MONTHLY INCIDENCE.

	Pneumonia	Malaria	Dysentery.
March ...	97	2	1
April... ..	11	1	0
May	8	3	1
June... ..	6	2	0
July	6	2	0
August	7	3	0
September	3	1	0
October	3	3	0
November	5	5	0
December	3	1	0
Totals	149	23	2

All the persons notified as suffering from Malaria or Dysentery have served abroad in the Army.

HOSPITAL ACCOMMODATION FOR INFECTIOUS DISEASES.

Cases of infectious disease, including Smallpox, requiring removal are sent to the Hospitals under the control of the Bury and District Joint Hospital Board.

SCHOOLS AND INFECTIOUS DISEASES, 1919.

During the year the Headmasters and Headmistresses of the various schools within the Borough notified the Health Department of 784 cases of suspected Infectious or Contagious Diseases among the scholars attending their schools.

On the cases being visited, 743 children were found to be suffering from some ailment or other, but Infectious or Contagious Diseases were not the cause of illness in every instance, as several of the children were found only to be suffering from colds, Bronchitis, &c. The following table shows the number of cases notified and the number certified of the various ailments. The instances where no cases are stated as having been notified and some certified is accounted for by the fact that the cases certified were notified under other headings :—

Disease.	No. Notified.	No. Certified.
Influenza	292	238
Measles	216	197
Chicken-Pox	139	136
Mumps	78	75
Ringworm	8	7
Scarlet Fever	2	2
Whooping Cough	39	36
Impetigo	8	7
Eczema	2	1
Colds	0	23
Swollen Glands	0	8
Bronchitis	0	10
Sore Eyes	0	3
Total	784	743

The number of notifications received from the various schools, and the number certified, during the previous ten years, are shown in the undermentioned table :—

Year.	No. Notified.	No. Certified.
1909	989	846
1910	589	451
1911	1074	989
1912	695	616
1913	778	692
1914	608	531
1915	1448	1367
1916	403	387
1917	1334	1268
1918	1148	1023

The following are the schools from which notifications were received in the order of number of notifications :—

Christian Church School.	St. Peter's School.
St. Mark's School.	Elton Council School.
Clerke Street School.	Warth Fold School.
St. Thomas's School.	George Street School.
Walmersley School.	All Saints' School.
St. Joseph's School.	Parish Church School.
Brunswick School.	St. Paul's (Bell) School.
East Ward Council School.	St. Paul's (Huntley) School
Chesham School.	Holy Trinity School.
St. John's School.	

SCHOOL CLOSURE.

During the year the following schools have been closed on account of the prevalence of Infectious Disease among the scholars :—

School and Department.	Period Closed.	Reason for Closure.
All Saints', Infants'	Mar. 11th to Mar. 21st	Influenza
" " "	Nov. 17th to Nov. 28th	Chickenpox
Brunswick, Infants'	Dec. 5th to Dec. 23rd	Measles
Chesham, Infants'	Dec. 1st to Dec. 23rd	Whooping Cough and Measles

School and Department.	Period Closed.	Reason for Closure.
Christian Church, Mixed	Mar. 10th to Mar. 21st	Influenza
Christian Church, Infants' ...	Mar. 10th to Mar. 21st	"
" " "	Dec. 11th to Dec. 23rd.	Mumps and Whooping Cough
Clerke Street, Infants'	Mar. 6th to Mar. 21st	Influenza
East Ward Council, Infants'...	Mar. 10th to Mar. 21st	"
Guardian Angels', Mixed ...	Mar. 3rd to Mar. 14th	"
Guardian Angels', Infants'...	Mar. 3rd to Mar. 14th	"
St. Mark's, Mixed	Mar. 10th to Mar. 21st	"
St. Mark's, Infants'	Mar. 10th to Mar. 21st	"
" " "	Oct. 29th to Nov. 14th	Whooping Cough and Mumps
St. Paul's (Bell), Mixed ...	Mar. 3rd to Mar. 14th	Influenza
St. Paul's (Bell), Infants' ...	Mar. 3rd to Mar. 14th	"
" " "	Nov. 26th to Dec. 23rd... ..	Mumps and Whooping Cough
St. Paul's, Huntley, Infants'...	Mar. 10th to Mar. 21st	Influenza
St. Peter's, Infants'	Oct. 21st to Nov. 7th	Measles
St. Thomas's, Infants'	Dec. 9th to Dec. 23rd	Mumps
Walmersley, Infants'	Mar. 10th to Mar. 21st	Influenza
Warth Fold, Infants'	Dec. 2nd to Dec. 23rd	Measles

DISINFECTION.

In each case after the closure of a school the walls, desks, floors, &c., have been sprayed with a solution of formalin, special attention being given to the books, &c., used by the scholars.

Mention might also be made of the co-operation of the School Managers with the Health Department in their endeavours to prevent and control infectious diseases. Much valuable assistance has also been rendered by clergymen and others to the Department by not holding classes in the schoolrooms on Sundays during the period of closure of the day school for an infectious disease.

WHOOPIING COUGH.

Number of cases notified through School Authorities ...	39
Number of deaths	0

During the year Whooping Cough has caused no deaths, as compared with eight deaths in the previous year.

Thirty-nine suspected cases were notified by the school authorities, of which, on being visited, 36 were found to be suffering from this disease.

Whooping Cough is most fatal in children under one year of age, the number of deaths diminishing as the age increases. Although this disease is generally most prevalent in children, it is sometimes observed in adults, the symptoms being much the same as those in the child, but there is a less tendency to dangerous complications.

DEATHS FROM WHOOPING COUGH DURING THE LAST TEN YEARS.

1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	Average	1919
13	0	12	22	1	15	4	9	3	8	8.7	0

DIARRHŒA.

During the year ten deaths from Diarrhœa have been registered, which is equal to a rate of 0.18 per 1,000 of the population, as compared with 18 deaths and a rate of 0.35 in the previous year, 24 deaths and a rate of 0.46 per 1,000 in 1917, 26 deaths and a rate of 0.49 in 1916, 37 deaths and a rate of 0.67 in 1915, and 36 deaths and a rate of 0.61 in 1914.

It will be seen on referring to the age periods that three of the deaths occurred in children under one year of age. As a general rule this disease is most prevalent in children between the ages of three months and one year. The infants who suffer most are the weakly dyspeptic ones who are badly fed and improperly cared for, in many instances the mother having to go out to work and the child put out to nurse. Diarrhœa is much more prevalent and fatal in the large towns than in the country districts, and much more common amongst the poorer classes of people living in houses of the back-to-back type and crowded courts, &c., where there is little fresh air and the standard of cleanliness is low. Under such conditions milk and other foods have to be kept in the small and crowded living rooms, and are readily contaminated.

The infants who suffer least are the breast-fed ones, as will be seen from the under-mentioned table, which shows the number of diarrhœa deaths of children under one year of age for the past

ten years, and also shows the percentage of infants who have been fed by breast and the percentage fed by bottle.

Year	No. of Deaths.	Bottle Fed.	Breast Fed.
1909	12 ...	11, or 91.67 per cent. ...	1, or 8.33 per cent.
1910	19 ...	17, or 89.47 per cent. ...	2, or 10.53 per cent.
1911	45 ...	45, or 100.00 per cent. ...	0, or 0.00 per cent.
1912	11 ...	8, or 72.72 per cent. ...	3, or 27.28 per cent.
1913	37 ...	33, or 89.19 per cent. ...	4, or 10.81 per cent.
1914	23 ...	17, or 73.91 per cent. ...	6, or 26.09 per cent.
1915	23 ...	17, or 73.91 per cent. ...	6, or 26.09 per cent.
1916	17 ...	12, or 70.59 per cent. ...	5, or 29.41 per cent.
1917	8 ...	6, or 75.00 per cent. ...	2, or 25.00 per cent.
1918	5 ...	5, or 100.00 per cent. ...	0, or 0.00 per cent.
1919	3 ...	2, or 66.67 per cent. ...	1, or 33.33 per cent.

MONTHLY INCIDENCE.

January ...	1
February ...	—
March ...	2
April ...	1
May ...	—
June ...	—
July ...	1
August ...	3
September ...	—
October ...	1
November ...	1
December ...	—

WARD DISTRIBUTION.

	No. of Deaths.
Moorside ...	1
East ...	3
Church ...	2
Redvales ...	—
Elton ...	4
	—
	10
	—

AGE PERIODS.

Under 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 upwards	Total.
3	—	2	—	—	—	2	3	10

INFLUENZA.

133 deaths were attributed to Influenza during the year 1919. This represents a mortality rate of 2.45 per 1,000 as compared with 146 deaths and a rate of 2.86 per 1,000 in the previous year.

Deaths from Influenza during 1919 as compared with the ten preceding years :—

1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	Average	1919
10	7	8	4	10	18	26	16	10	146	25.5	133

AGE DISTRIBUTION.

Under 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 upwards	Total
4	3	8	9	13	32	42	22	133

WARD DISTRIBUTION.

Moorside	East	Church	Redvales	Elton	Whole Borough.
22	32	22	26	31	133

QUARTERLY INCIDENCE.

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Whole Year.
116	 14	 2	 1	 133

 VENEREAL DISEASES.

In 1917 arrangements were made with Professor Delépine, of the Public Health Laboratory, Manchester, for the examination of material from cases of suspected Venereal Diseases submitted by medical practitioners. Outfits for the collection of specimens are supplied free on application by medical practitioners at the Health Department.

About the middle of 1918 arrangements were made for the work to be transferred from Professor Delépine to Professor Dean, of the University of Manchester.

The following table gives the examinations of specimens sent for examination during the year 1919 :—

WASSERMAN BLOOD TESTS.

	Total.	Positive.	Negative.
Number of specimens	10	9	1

No material was received for examination for the discovery of Spirochaetes or Gonococci.

The treatment Centre was opened on February 3rd, 1920, at the Tuberculosis Dispensary, The Wylde, Bury. Previous to the Centre being opened an agreement was in force with the Royal Infirmary, Manchester, for all Bury cases to be treated there.

TUBERCULOUS DISEASES.

Phthisis caused 48 deaths, of which 19 were males and 29 females. The rate of mortality was 0.88 per 1,000, as compared with a rate of 1.28 per 1,000 in the previous year. Eight of the deaths occurred in the Union Workhouse.

The age and sex distribution of the cases was as follows :—

	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 upwards	Total
Males	—	—	—	2	8	9	—	19
Females	—	1	—	13	6	7	2	29

MEAN AGE AT DEATH FROM PHTHISIS.

Males	40.8
Females	33.4

WARD DISTRIBUTION OF DEATHS FROM PHTHISIS.

Moorside	East	Church	Redvales	Elton	Total
10	10	6	9	13	48

OCCUPATIONS OF PERSONS DYING FROM PHTHISIS DURING THE YEAR 1919.

Cotton Operatives	4	Warehouseman	1
Woollen Operative	1	Colour Mixer	1
Shop Assistants	2	Calender Hand	1
Paper Mill Worker	1	Brewer	1
Iron Operatives	4	Twine Worker	1
Rag Sorter	1	Maid	1
Bricklayer	1	Clerk	1
Joiner and Cabinetmaker..	1	Outdoor Labourers and	
Shoemaker and Clogger...	1	Carters	3
Traveller	1	Other or no employment...	21

OTHER TUBERCULOUS DISEASES.—Twenty deaths resulted from tuberculous diseases other than Phthisis, as compared with 16 deaths in the previous year.

The age distribution was as follows:—

Under 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 upwards	Total
1	...	—	...	1	...	5	...	2
...	...	...	...	...	...	6	...	4
...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	20

Tuberculosis, therefore, was responsible for 68 deaths altogether, which is equivalent to a rate of 1.25 per 1,000.

In other words, one out of every thirteen deaths in Bury has been due to some form of Tuberculosis.

BACTERIOLOGICAL EXAMINATION OF SPUTUM.—During the year the sputa of 52 suspected cases of Phthisis were examined at the Public Health Laboratories, Manchester. Tubercle Bacilli were found in five cases, while the result was negative in the remaining 47.

DEATHS FROM PHTHISIS IN BURY DURING THE PAST 10 YEARS :

1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
73 ...	57 ...	77 ...	60 ...	65 ...	76 ...	49 ...	75 ...	66 ...	48

PUBLIC HEALTH (Tuberculosis) REGULATIONS, 1912.

Particulars of notifications received under these Regulations will be found on page 50.

On each case being notified, the patient was visited by the Health Visitor, who gave instructions and suitable advice re methods of dealing with sputum and prevention of spread of the disease. Disinfectant solutions, paper handkerchiefs, and spittoons were supplied gratis to the patients. Subsequent visits were also paid by the Lady Inspector to ensure that the instructions were being carried out, and to give advice about the nursing of the patients, many of whom were in the last stage of the disease.

INSTITUTIONAL TREATMENT.

Institutional treatment is given to cases of Tuberculosis at the Tuberculosis Dispensary and at the two Institutions of the Bury and District Joint Hospital Board, viz. : The Aitken Sanatorium at Holcombe, near Ramsbottom, and the Ainsworth Sanatorium, near Bolton. The Aitken Sanatorium is used for the treatment of early cases and the Ainsworth Sanatorium for cases which are more advanced.

The Aitken Sanatorium was opened in August, 1910, the Ainsworth Sanatorium on October 20th, 1913, and the Bury Tuberculosis Dispensary on October 15th, 1914.

THE TUBERCULOSIS DISPENSARY.

The Tuberculosis Dispensary is situated in the Wylde, Bury, and was formerly the Prince's Club. It is situated in the centre of the town quite close to the main tram routes and the railway stations. The building was kindly presented to the town by the Earl of Derby.

The two wards contain eight beds each, half of which number are, by arrangement with the Lancashire County Council, for the sole use of patients from outside the Borough. Two of the

remaining beds are guaranteed to the Insurance Committee for the use of insured persons; but the Insurance Committee are allowed the use of any further beds that may be unoccupied.

The Out-Patient Department is used by the Lancashire County Council on certain half-days per week, when one of their Tuberculosis Officers is in attendance.

The following table gives the number of patients treated and the number of patient days in the various institutions :—

	INSURED.		NON-INSURED.		TOTAL.	
	No. of Patients.	No. of Days.	No. of Patients.	No. of Days.	No. of Patients.	No. of Days.
Dispensary	8	543	9	932	17	1475
Aitken Sanatorium.....	37	3230	3	198	40	3428
Ainsworth Sanatorium..	21	3296	2	133	23	3429
M/cr Royal Infirmary .	2	44	1	22	3	66

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of Notifications during the period from 29th December, 1918, to 3rd January, 1920.

AGE PERIODS.	NUMBER OF NOTIFICATIONS ON FORM A.													NUMBER OF NOTIFICATIONS ON FORM B.				NO. OF NOTIFICATIONS ON FORM C.	
	PRIMARY NOTIFICATIONS.													PRIMARY NOTIFICATIONS.			Total notifications including cases previously notified by other Doctors).	Poor Law Institutions.	Sanatoriums.
	Total notifications (i.e., including cases previously notified by other Doctors).													Total notifications (i.e., including cases previously notified by other Doctors).					
	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 upwards.	Total.	Under 5	5 to 10	10 to 15	Total.			
Pulmonary Males...	—	1	1	2	2	2	14	10	6	3	—	41	49	—	—	—	2	31	
“ Females	—	—	—	1	3	7	4	5	3	4	1	28	33	—	1	1	2	1	21
Non-pulmonary Males...	—	3	2	1	1	1	2	1	1	—	1	13	16	—	1	3	4	—	2
“ Females	—	1	1	—	1	—	—	1	—	—	—	4	7	—	—	—	—	—	5

CANCER.

During the year 66 deaths (equal to a mortality of 1.21 per 1,000) were registered as due to various forms of malignant disease. Of these deaths, 28 were males and 38 females.

Sex and Age	Under 35	35 to 45	45 to 55	55 to 65	65 to 75	Over 75	Total.
Males ...	1	1	6	9	9	2	28
Females..	—	2	6	14	12	4	38

The following table gives the ward distribution of these deaths :—

Moorside	East	Church	Redvales	Elton
13	14	10	14	15

Character of the disease as described on the returns :—

	Males.	Females.
" Cancer " ...	5	8
Carcinoma ...	16	27
Epithelioma ...	7	2
Sarcoma ...	—	1

ORGANS AFFECTED.

	Males.	Females.
Stomach ...	8	11
Intestine ...	2	2
Rectum ...	4	2
Liver ...	3	1
Breast ...	—	5
Uterus ...	—	11
Throat ...	—	1
Gall Bladder ...	1	2
Jaw ...	5	—
Thigh ...	—	1
Œsophagus ...	1	2
Testicle... ..	2	—
Prostate ...	1	—
Cervical Glands... ..	1	—
	—	—
	28	38

DISINFECTION.

The following is a summary of the disinfection carried out during the year in the reported cases of Infectious Diseases :—

230 rooms in 221 houses were disinfected with the fumes of either sulphur or formaldehyde, and the walls of 452 rooms in 221 houses sprayed with a solution of either formalin or carbolic acid.

The desks, books, walls, &c., of 8 public schools have been sprayed with a solution of formalin, the rooms afterwards being disinfected with the fumes of formaldehyde.

In addition the walls of one ward, Dispensary Hospital, have been sprayed with a solution of formalin, the rooms afterwards being disinfected with the fumes of formaldehyde.

50 rooms in 34 houses have been disinfected with the fumes of formalin or sulphur, and the walls of 102 rooms in 34 houses sprayed with a solution of formalin, after the occurrence of deaths from or the removal of cases of Phthisis.

Two parcels of infected clothing and 32 sets of infected bedding have been disinfected by steam.

WATER SUPPLY.

PUBLIC SUPPLY.—The public service of the Borough is derived from four of the Reservoirs belonging to the Bury and District Joint Water Board. The Board represents the following Authorities :—Bury, Radcliffe, Ramsbottom, Tottington, Haslingden, Rawtenstall, Whitefield, Little Lever, and Rury Rural. The area supplied is 80 square miles.

The four Reservoirs supplying Bury are :—

Gin Hall (situated in Bury), supplying 10,478 houses.

Calf Hey and Ogden (situated in Haslingden Borough), supplying 2,713 houses chiefly in the districts of Limefield, Bell Lane, Jericho, and Blackford Bridge.

Hapton (situated partly in Rawtenstall Borough and partly in Burnley district), supplying 1,071 houses, chiefly in Chesham and Walshaw districts.

The total number of houses supplied at December 31st, 1919, was 14,262.

HOUSES CONNECTED AND DISCONNECTED DURING THE YEAR.—

	Houses.	Baths.	W.C's.
Connected	4	24	87
Disconnected	4	1	4

NEW MAINS.—79 yards of 2-in. main have been laid as follows :—34 yards, Barlow Fold, Blackford Bridge, and 45 yards, Cross Street and William Street.

RENEWALS.—508 yards of 4-in. main and 91 yards of 3-in. main have been renewed as follows :—45 yards of 4-in. main, Bury Bridge, Elton; 134 yards of 4-in. main, Parker Street, Back

Lord Street, and Mason Street; 182 yards of 4-in. main, Goodlad Street, Woolfold; 147 yards of 4-in. main, Ainsworth Road and Fairy Street, Elton; and 91 yards of 3-in. main, Back Ingham Street and Back Wilson Street.

Flushing operations have been carried out periodically and several dead ends have been renewed.

PRIVATE WATER SUPPLY.—At the end of the year 1919 there were six houses, 52 cottages, two schools, and one lodge supplied with water from private sources. The following shows the situation and the number of houses supplied:—

1 cottage, Holebottom.	1 cottage, Bury Ground.
School, Woodgate Hill.	3 cottages, near Bury
1 house, Green Bank.	Reservoir.
1 house, Chesham.	Lodge, Woodhill Road.
1 house, Chesham Green.	1 house, Woodhill House.
1 cottage, Cinder Hill.	1 house, Calrows.
1 house, South View.	12 cottages, Yates Terrace.
2 cottages, Chesham Green.	School, Woodhill.
3 cottages, Cinder Hill.	18 cottages, Woodhill, Mill
1 cottage, Gipsy Brook.	Street, School Street,
1 cottage, Chesham.	and Woodhill Street.
2 cottages, Birchen Bower.	2 cottages, Duckworth Fold.
2 cottages, Lowes.	1 cottage, near Park Hill
2 cottages, Spring Cottage,	House.
Fairfield.	

FACTORIES AND WORKSHOPS.

FACTORIES.—During the year 15 notices have been received from His Majesty's Inspector of Factories, all of which have been complied with.

WORKSHOPS.—The duty of supervising the workshops in which males are employed is carried out by Inspectors Haworth and Kay, and the Female Inspectors (Nurses Hacking, Pennington, Greenhalgh, and Webster) have charge of the workshops in which females only are employed.

GENERAL SANITATION.—The workshops, as regards cleanliness, light, air space, &c., have been found to comply with requirements. From a sanitary point of view the conditions under which work is carried on in these rooms is very satisfactory, and it is pleasing to record that any suggestions for further improvement have been carried out by the owners. The number of workshops in the Borough is 403.

HOME WORK.—Lists containing the names and addresses of home workers have been received from two firms and entered in the register. The Female Inspectors have paid 25 visits to the homes in which the work is carried on, and in the majority of cases the work is performed under satisfactory conditions.

FACTORIES AND WORKSHOPS.

FACTORIES, WORKSHOPS, AND WORKPLACES.—During the year 15 notices were received from His Majesty's Inspector of Factories, and these have been complied with.

The following is a list of Notices served during the period under review :—

No. of Notice.	Defects Found.	Remedies Adopted.
1.—F.I.N.	Sanitary convenience choked and needs limewashing.	W.C. cleared, cistern repaired, and closet recess limewashed.
2.—F.I.N.	No sanitary convenience.	W.C. provided.
3.—F.I.N.	Workshop requires limewashing, insanitary convenience.	Premises limewashed and a w.c. provided.
4.—F.I.N.	W.C. flushing apparatus out of order.	Flushing tippler repaired.
5.—F.I.N.	An accumulation of refuse.	Refuse removed.
6.—F.I.N.	Workroom requires limewashing.	Limewashing done.
7.—F.I.N.	Floor of boot repairing shop in a dirty condition, ventilation defective.	Room cleansed.
8.—F.I.N.	No intervening ventilated space between w.c. and the spinning room.	A wood and glass screen erected, with ventilating pipe carried up through roof.
9.—F.I.N.	Workshop requires limewashing. No proper sanitary convenience provided.	Limewashing done. Two new w.c.'s provided.
10.—F.I.N.	Sanitary convenience consists of pail closets, screen in front defective.	Doors to pail recesses and the screen at front of closets repaired (no sewer accommodation available).
11.—F.I.N.	Factory not provided with separate sanitary accommodation.	W.C. provided.
12.—F.I.N.	Foul cesspool privy, dirty and unlimewashed.	Midden emptied and cleansed, closet limewashed.
13.—F.I.N.	Workshop requires limewashing.	Limewashing done.

No. of Notice.	Defects Found.	Remedies Adopted
14.—F.I.N.	The sanitary accommodation for women is unsuitable in that it is unlighted.	An electric light fixed in the closet recess.
15.—F.I.N.	Women's closet not lighted, one closet without a door. Closets insanitary in that in all the conveniences there is offensive effluvia.	Artificial light fixed. Door fixed. Offensive effluvia occurs only during period between automatic flushing.
104, 406, 520, 599,	Insufficient drains.	Drains relaid.
143, 199, 370, 389, 624, 649	Choked drains.	Taken up, cleared, and relaid.
206, 199	Water closets choked.	Closet cleared.
199, 427, 437	Water closets defective.	Repaired.
429, 513	Waste pipes defective.	Repaired.
150, 206, 230, 425, 426, 434, 684, 685	Insufficient closet accommodation.	Seventeen additional w.c's fixed.
385, 464	Foul surface and approaches to closets.	Cleansing done.
395, 464,	W.C. cisterns out of order.	Repaired.
335	No water supply to w.c's.	Water mains repaired.
429, 569	Insanitary w.c's.	Two new w.c's fixed.
463, 644	W.C's structurally defective	Repaired.
459, 585,	Insanitary pail closets.	Replaced by seven new w.c's.
646	Offensive privy closets.	Replaced by two new w.c's.
155, 169, 187, 198, 317	Accumulation of refuse.	Refuse removed.
196, 369, 624	Premises dilapidated.	Repaired.
226	No abstract of Factory Act affixed to workrooms.	Copy obtained and posted up.
515	Effluvia nuisance.	Abated.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOMEWORK.

I.—INSPECTION

Including inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries).....	106	25	—
Workshops (including Workshop Laundries)	174	21	—
Workplaces (other than Outwork's Premises).....	105	16	—
Total.....	385	62	—

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts:—</i>				
Want of Cleanliness	7	7	..	..
Want of Ventilation	1	1	..	..
Overcrowding	..	..	..	..
Want of drainage of floors	4	4	..	..
Other Nuisances.....	19	19	..	..
Sanitary accommodation { Insufficient	12	12	..	..
{ Unsuitable or defective	20	20	..	..
{ Not separate for sexes	1	1	..	..
<i>Offences under the Factory and Workshop Act:—</i>				
Illegal occupation of underground bakehouse (S. 101)	..	..	..	..
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)	..	..	..	..
Other offences (excluding offences relating to Outwork, which are included in part 3 of this report).....	..	..	..	..
Total	64	64	...	..

OTHER MATTERS.

Class.		Number.	
Matters notified to H.M. Inspectors of Factories:—			
Failure to affix Abstract of the Factory & Workshop Act (S.133)		1	
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5)	Notified by H.M. Inspector	15	
	Reports (of action taken) sent to H.M. Inspectors.	15	
Other		—	
Underground Bakehouses (S. 101):—			
Certificates granted during the year		—	
In use at the end of the year		2	
Homework:—		Number of	
List of Outworkers (S. 107):—		Lists.	Outworkers.
Lists received:—Twice in the year		—	—
Once in the year		2	25
Addresses of outworkers { forwarded to other Authorities. { received from other Authorities		—	—
Inspection of Outworkers' Premises		25	
Homework in unwholesome or infected premises:—		Wearing Apparel.	Other.
Notices prohibiting homework in unwholesome premises (S. 108)		—	—
Cases of infectious disease notified in homeworkers' premises		—	—
Orders prohibiting homework in infected premises (S. 110)		—	—
Workshops on the Register (S. 131) at the end of the year 1919			
Important classes of workshops, such as workshop bakehouses, may be enumerated here.	Bakehouses	110	
	Blacksmiths... ..	13	
	Brush Manufacturers	4	
	Boot and Shoe Makers and Repairers	40	
	Cloggers	24	
	Cabinet Makers and Joiners	14	
	Dress and Mantle Makers	18	
	Wheelwrights	7	
	Workplaces	25	
	Marine Store Dealers & Metal Brokers	9	
	Painters and Decorators	18	
	Plumbers	16	
	Saddlers	8	
	Tailors	34	
	Milliners	39	
	Other Trades	48	
Total number of workshops on register		427	

COMMON LODGING-HOUSES.

The number of Common Lodging-houses in the Borough is fourteen, all of which are subject to annual registration in accordance with Section 40 of the Bury Corporation Act, 1901 (now consolidated in the Bury Corporation Act, 1909).

The following is a list of the keepers of the Common Lodging-Houses in 1919:—

Wright, John, 38, King Street.
 Whitehouse, Samuel, 56, Union Square.
 Farrar, Ethel, 25, King Street.
 Johnstone, Robert, 24, Clerke Street.
 McKenzie, J. W., 26 and 28, Clerke Street.
 Harrison, John, 5, 7, 9, and 11, Clerke Street.
 Nuttall, Arthur, 41 and 43, Union Square.
 Law, Alfred, 45, Clerke Street.
 Hurine, William Henry, 9, Parkhill Street.

400 visits have been paid to the 14 lodging-houses within the borough, which were found to be kept in a fairly clean condition, the limewashing being done in accordance with the Public Health Acts on the first week in April and October. The following nuisances and breaches of bye-laws were noted and dealt with during the year, letters and preliminary notices having the desired effect of getting the abatement of the same:—

1	in connection with	defective	roof.
1	„	„	defective water-closet.
1	„	„	choked yard drains.
1	„	„	accumulation of refuse.

The houses are kept under observation by the plain-clothed police who have been appointed as additional Inspectors by the Health Committee, which gives them the right of entry to the houses at any time.

HOUSES LET-IN-LODGINGS.

("Furnished Rooms.")

The number of houses now on the register is 31. 149 rooms of these houses are let off as furnished apartments, giving accommodation for 343 adults and 61 children.

520 visits have been made in addition to those made by the police officers, and the rooms have been kept fairly clean. The following breaches of the Bye-laws and nuisances were dealt with:—

1	in connection with	unregistered room being used.
1	„ „	defective ashpit door.
1	„ „	defective eaves gutters.
15	„ „	choked yard drains, w.c.'s 11, yards 4.
1	„ „	accumulation of refuse.
1	„ „	waste water latrine closets.
1	„ „	premises to cleanse.
3	„ „	w.c.'s out of order.
1	„ „	animals kept as to be a nuisance.

Speaking generally, this method of housing the poorer classes is far from satisfactory, but until some other provision is made in the shape of the erection of a cheaper type of house suitable for this class of people, either by the Corporation or by private enterprise, we shall have to endure what, in my opinion, constitutes a blot on the Sanitary Administration of the town.

PETROLEUM ACTS.

Under these Acts two licences have been granted for the storage of Benzine and Benzoline, twenty-nine for petrol, and nine for calcium carbide. In all cases the petrol is kept in metal vessels and drums in properly constructed stores, the calcium carbide being kept in metal vessels with airtight lids in dry places, generally in the shops and warehouses. In two cases the carbide is used for the generation of acetylene gas for welding purposes.

EXPLOSIVES ACTS.

Twenty-two persons were registered for the sale of explosives during the year as required by these Acts, being for the sale of fireworks or mixed explosives, &c. The sale of fireworks only lasts for about two or three weeks, i.e., the last week in October and the first and second weeks in November. During this period the shops were visited, and the fireworks were found to be stored in accordance with the regulations made, dummy fireworks being exposed in the windows. Gunpowder is sold by the ironmongers and locksmiths, and is kept in safes in small quantities.

SMOKE OBSERVATIONS.

179 smoke observations of the mill chimneys situated within the Borough have been taken, each being of 60 minutes' duration. The aggregate amount of black smoke evolved was 407 minutes, 30 seconds, which is equal to an average of 2.27 minutes for each observation. The time limit (five minutes in sixty) permitted by your Council has been exceeded in ten instances by ten firms, this being equal to 5.59 per cent. of the total observations taken, the aggregate amount of black smoke emitted by these firms being 105 minutes, which is equal to an average of ten minutes and 30 seconds for each observation. The average amount of black smoke emitted by the chimneys under the limit was equal to 1.79 minutes.

After the observation has been made the usual course has been taken, viz., to send a notification of the amount of black smoke emitted to the firm, and in cases where the limit has been exceeded the works have been visited in order to see if there were any defects in the boilers, &c., which may have caused the nuisance, this course being much appreciated by the owners, as it enables them to trace or check the cause of the nuisance.

The following table gives the result of the ten observations exceeding the limit :—

Initials of Firm.	Black. Mins.	Moderate. Mins.	None. Mins.	
*P. Sp. & M. Co.	11½	23	25½	
†A. A. & Sons	9½	23	25½	Fined £2.
*C.W.S. Ltd.... ..	12	31	17	
†B. F. M. Co.	9½	31½	19	Fined £2.
*A. A.	10½	16½	33	
*O. B. Ltd.	8	48	4	
†A. A.	8	31½	20½	Fined £1.
*S. S. & Sons Ltd.... ..	6½	18½	35	
†B. F. M. Co.	17	24	19	To pay costs.
*B. & H. C. Co.	12½	31½	16	

* Legal notice served.

† Prosecutions.

PREVENTION OF POLLUTION OF RIVERS.

Every effort is made to keep the rivers and streams flowing through the Borough free from pollution. Practically the whole of the sewage is intercepted and conveyed to the Sewage Works for treatment. The process adopted is chemical precipitation, followed by filtration, a portion on six acres of double contact beds, and the rest on percolating beds 1,525 square yards in area. The dry weather flow is 1,500,000 gallons per day, and efficient provision is made for treating flows up to six times the dry weather flow or 9,000,000 gallons per day in times of heavy rains.

In areas which are not connected up to the main sewers small sewage schemes are laid down to deal with the sewage.

Alterations commenced to be carried out in April, 1919, to convert to the percolating system, which will take about five years to complete. Experiments are also being carried out by the new

process of sewage purification known as the activated sludge process, and which, if successful, would probably make it unnecessary to complete the above alterations.

The control of the rivers and streams within the Borough is under the jurisdiction of the Mersey and Irwell Joint Committee, and their Inspectors supervise the purification plants in trades which are likely to produce effluents of a polluting character. A large number of trade wastes are dealt with by the owners before passing to the river; the rest are admitted to the public sewers.

No complaints have been made during the year of the pollution of rivers or streams.

CANAL BOAT ACTS, 1877 and 1884.

The work of the inspection of the canal boats is carried out by Inspector Kay. No boats registered under the above Acts visited the Wharf at Bury Bridge during the year. Nineteen visits were paid to the Wharf.

TABLE OF NUISANCES.

Type of Nuisance dealt with.	1916.					1917.					1918.					1919.				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
Damp, due to being built against an embankment.....	4	4	4	1	1	2	2	2	1	1	3	3	3	1	1	1	3	3	1	1
Damp walls, built without damp-proof course or defective	3	3	3	1	1	5	5	5	1	1	6	6	6	1	1	7	7	7	1	1
Damp walls, without cavities.....	4	4	4	1	1	14	14	15	1	1	7	7	7	1	1	14	14	15	1	1
Damp, due to defective roofs.....	10	10	10	1	1	10	10	15	1	1	18	20	21	1	1	10	10	15	1	1
Damp, due to defective eaves gutters and spouts	23	23	11	11	1	25	26	25	2	2	26	27	24	3	3	35	37	34	3	3
Premises to cleanse.....	33	46	45	1	1	45	52	51	1	1	39	59	61	1	1	50	57	55	2	2
" to repair.....	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	2	2	2	1	1
" overcrowded.....	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	2	2	2	1	1
Defective gas pipes or fittings in houses.....	3	3	3	1	1	18	18	18	1	1	9	9	9	1	1	7	7	7	1	1
" water pipes.....	3	3	3	1	1	3	3	3	1	1	4	4	4	1	1	7	7	7	1	1
" chimney flues in houses.....	7	7	7	1	1	4	4	4	1	1	4	4	4	1	1	6	6	6	1	1
Animals kept as to be a nuisance.....	36	36	23	6	4	23	33	35	5	1	27	28	30	1	1	26	27	18	8	2
Accumulation of refuse.....	10	10	10	1	1	4	4	4	1	1	13	13	13	1	1	5	6	6	1	1
Defective yard surface.....	5	8	8	1	1	4	4	4	1	1	7	7	7	1	1	2	2	2	1	1
Foul.....	12	12	10	1	1	9	9	9	1	1	19	19	17	2	2	10	11	11	1	1
Dangerous places, cellar areas, fences, &c.....	112	5	2	1	3	9	3	3	1	1	62	19	14	5	1	51	6	6	1	1
Choked street grids.....	15	16	43	1	1	6	6	14	1	1	13	16	14	1	1	4	6	6	1	1
" cellar drains.....	15	16	43	1	1	6	6	14	1	1	13	16	14	1	1	4	6	6	1	1
" passage drains.....	53	54	68	2	4	71	74	75	3	1	18	18	18	5	5	8	9	48	3	1
" yard drains.....	36	37	77	1	1	37	63	86	1	1	57	93	146	7	7	50	57	64	2	1
" water closet drains.....	28	29	43	3	1	26	29	32	2	2	36	49	64	2	2	32	48	41	2	1
" water closet drains.....	37	38	46	3	1	28	32	32	2	2	56	64	64	4	4	36	38	47	2	1
" rainwater spout drains.....	26	40	53	1	1	21	25	26	1	1	44	36	4	2	2	20	23	26	3	2
Defective drains.....	3	3	2	1	1	8	8	8	1	1	17	21	27	1	1	21	21	20	4	2
Insufficient drains.....	1	1	1	1	1	5	6	6	1	1	2	2	2	1	1	8	9	4	1	2
Brains inside premises.....	4	4	1	1	1	5	6	6	1	1	2	2	2	1	1	1	1	1	1	1
Insanitary traps connected to drains.....	15	15	12	1	2	11	12	12	1	1	20	22	21	1	1	23	27	25	2	2
Defective waste pipes.....	26	29	23	1	1	37	51	46	1	1	39	43	40	2	2	47	55	49	0	1
" fittings, sinks and basins.....	26	29	23	1	1	37	51	46	1	1	39	43	40	2	2	47	55	49	0	1
" rainwater spouts.....	15	15	12	1	2	11	12	12	1	1	20	22	21	1	1	23	27	25	2	2
" caves gutters.....	6	7	7	1	1	5	5	10	1	1	9	9	9	1	1	8	9	12	1	1
Premises without spouts or gutters.....	26	42	24	19	1	10	11	11	8	1	33	41	35	7	7	31	27	25	10	2
Premises with an insufficient closet accommodation	33	43	67	2	1	34	45	56	1	1	49	59	57	2	2	51	47	74	2	2
Closets structurally defective.....	6	7	7	2	1	14	15	19	1	1	21	22	37	2	2	11	15	19	1	1
Closets dirty and foul approaches.....	21	27	57	1	1	20	23	46	1	1	49	59	157	1	1	19	25	53	1	2
Water closet-cisterns out of order.....	20	26	44	2	1	24	36	66	2	1	4	4	15	1	1	4	9	18	1	2
" water pipe burst.....	5	7	4	2	1	9	9	12	1	1	12	18	15	2	2	8	9	9	1	2
" without a water supply.....	1	1	1	1	1	2	2	2	1	1	2	2	2	1	1	1	1	1	1	1
" defective pedestal.....	1	1	1	1	1	2	2	2	1	1	2	2	2	1	1	3	3	3	1	1
" defective flush pipes.....	2	2	1	1	1	2	2	2	1	1	3	3	3	1	1	3	3	3	1	1
" defective soil pipes.....	1	1	1	1	1	2	2	2	1	1	3	3	3	1	1	3	3	3	1	1
" defective vent pipes.....	2	2	1	1	1	2	2	2	1	1	3	3	3	1	1	3	3	3	1	1
" insanitary troughs.....	1	1	1	1	1	2	2	2	1	1	3	3	3	1	1	3	3	3	1	1
" insufficiently lighted and ventilated	1	1	1	1	1	2	2	2	1	1	3	3	3	1	1	3	3	3	1	1
Waste water closet (tipplers) out of order.....	20	20	23	1	1	16	16	16	1	1	39	39	42	1	1	57	58	61	2	1
Offensive privy closets and middens.....	53	127	77	170	1	11	23	12	25	1	23	51	23	1	1	35	71	42	73	2
Defective pall closets.....	19	44	58	1	1	9	9	9	1	1	7	11	17	1	1	16	40	50	2	2
Insufficient ashpits.....	13	23	31	1	1	9	9	11	20	1	21	38	52	1	1	6	8	8	1	1
Ashpits without proper doors.....	24	27	59	1	1	31	36	82	1	1	28	32	76	1	1	20	25	52	1	1
Ashpit doors without proper fastenings.....	45	56	133	1	1	22	25	43	1	1	44	51	121	1	1	33	33	72	1	1
Ashpits to cleanse.....	21	61	100	1	1	3	15	19	1	1	13	26	50	1	1	29	45	85	4	4
Miscellaneous.....	6	6	3	1	2	3	3	3	1	1	6	6	6	1	1	7	7	7	4	4

A—No. of Notices.

B—No. of Nuisances.

C—No. of dwellings affected.

D—No. of factories and workshops affected.

E—No. of other premises affected.

Nuisances Abated and Sanitary Improvements Effected in connection with Dwelling-houses and other Premises.

	1916	1917	1918	1919
Privy closets converted to fresh-water closets... ..	106	42	11	43
Pail closets converted to fresh-water closets... ..	31	1	2	16
Additional fresh-water closets provided—Outside	15	12	6	4
" " " Inside... ..	30	17	13	16
Waste-water closets replaced by fresh-water closets	1	2	4	4
Trough " " " " " " " " " " " " " " " "	2	—	3	5
Total number of fresh-water closets fixed in connection with old property	185	74	39	88
Privy middens altered and converted to dry ashpits... ..	33	11	0	12
" " " ashbins... ..	31	11	1	15
Dry Ashpits " " " ashbins... ..	6	0	1	3
Number of ashbins provided (galvanised iron) fixed... ..	21	8	0	4
" " " " portable	57	20	0	25
Number of cesspools cleared out	1	0	3	1
Number of dry ashpits provided... ..	23	10	0	12

MEAT INSPECTION.

RAILWAY CATTLE DOCKS.

The number of animals which arrived in the Borough during the past year is as follows:—

Beasts	Sheep and Lambs	Pigs	Calves
5191	15423	2979	42

ABATTOIRS.

During the past year the various animals, carcasses, &c., passing through the Public Abattoirs have been carefully examined, both before and after slaughter. The meat retailed in the Borough has not been the usual high standard quality of normal times. This, of course, was unavoidable, as the town had to accept the animals, carcasses, &c., allocated by the Central Meat Control authorities.

NUMBER OF ANIMALS SLAUGHTERED AT THE ABATTOIRS.

	Beasts	Sheep and Lambs	Pigs	Calves	Total
January	420	1009	371	32	1832
February	316	481	344	62	1203
March... ..	376	352	319	75	1122
April	433	191	266	56	946
May	340	356	202	26	924
June	283	586	227	12	1108
July	483	1940	270	31	2724
August	634	1759	135	25	2553
September	499	1187	296	51	2033
October... ..	699	3069	200	56	4024
November	694	2591	243	64	3592
December	656	1368	681	45	2750
Total, 1919 ...	5833	14889	3554	535	24811
Total, 1918 ...	1927	10594	2279	282	15082

The above table shows an increase of 3,906 beasts, 4,295 sheep and lambs, 1,275 pigs, and 253 calves, as compared with last year.

Both years were exceptional, as all slaughtering being under control, several outside districts had to take their allocation of meat, &c., from Bury Abattoirs.

Number of carcasses and amount of meat brought to the Abattoirs :—

	1919	1918	
Sides	325	285	Increase 40
Quarters	0	11	Decrease 11
Sheep	295	0	Increase 295
Pigs	0	0	
Livers... ..	0	0	
Total... ..	620	296	Increase 324

During the year 104 carcasses required special examination, of which number 68 were affected with Tuberculosis in varying degrees. These consisted of 41 cows, 4 bullocks, 4 bulls, 10 heifers, and 9 pigs. Owing to the extent of the disease in 9 cows, 1 bullock, 1 bull, 4 heifers, and 2 pigs, it was found necessary to condemn and destroy the entire carcasses.

It was also found necessary to condemn and destroy (for causes other than Tuberculosis) the entire carcasses of 13 sheep, 4 pigs, and 2 calves, this bringing the number of entire carcasses destroyed to 36.

The following organs were also destroyed, viz. :—Beasts : 51 lungs, 20 hearts, 55 livers, 21 kidneys, 20 melts, 24 bellies, 12 skirts, and 31 udders. Sheep : 86 heads, 99 lungs, 99 hearts, and 99 livers. Pigs : 14 lungs, 10 hearts, and 24 livers.

The following were submitted to the Meat Inspector for examination, or were discovered by him in the course of routine inspection outside the Abattoirs, all of which were subsequently surrendered and destroyed :—5 hindquarters and 3 forequarters of beef, 3 boxes of codfish, 3 boxes of gurnet, 1 box mackerel, 1 box corned beef, 1 box of Danish butter, 2 boxes of Persian dates, 200 eggs, 264 rabbits, and 30 gallons of milk.

The total amount destroyed during the year was 8,893-lbs., and was condemned for the following causes :—

No. Condemned	Cause	Weight in Lbs.
71	Tuberculosis...	6144
19	Fluke ...	315
11	Abscess ...	151
9	Cirrhosis ...	98
7	Decomposition ...	349
7	Unsound ...	904
7	Immature ...	274
3	Dropsy ...	97
—	Swine Fever ...	—
2	Asphyxiation ...	171
2	Injured ...	93
2	Hydatids ...	22
2	Mastitis ...	17
2	Pleurisy ...	20
2	Drowned ...	120
—	Actinomycosis ...	—
1	Traumatic Pericarditis ...	32
1	Peritonitis ...	27
1	Pneumonia ...	21
1	Necrosis ...	9
1	Tumour ...	15
1	Congestion ...	14
		8893

On two occasions the Meat Inspector has been called to inspect carcasses slaughtered in emergency upon farms in the Borough. In each case slaughter had been performed sufficiently early to enable the carcase being passed as fit for food.

During the year the butchers' shops, fish shops, &c., have been constantly kept under supervision, regular and frequent visits having been paid to the same; the meat, fish, &c., coming under observation having, with several exceptions, been satisfactory.

F A R M S.

There are 63 registered farms within the Borough, this number being the same as last year. 115 visits have been made during the year, and the farm buildings on the whole are in a good sanitary condition.

MILK.—The quality of milk supplied in the Borough, as judged by the samples submitted for analysis, has been fairly good. Thirty-two samples were taken by the Inspector (Mr. Cass) and submitted to the Borough Analyst, and with the exception of two samples were pronounced genuine.

OFFENSIVE TRADES.

109 visits have been paid to the various offensive trade establishments in the Borough. Three complaints were received during the year, but the nuisance in each case was unavoidable, the raw materials, owing to transport difficulties, being received in a decomposed condition. The offensive trades as a whole are carried on with a minimum of nuisance.

BAKEHOUSES.

The bakehouses have been kept under observation, and have been carried on in a satisfactory manner.

Six scullery bakehouses have been registered during the year, and two discontinued, the total number in the Borough now being

- 1 Factory Bakehouse.
- 2 Wholesale Bakehouses.
- 2 Cellar Bakehouses.
- 41 Special Bakehouses.
- 39 Scullery Bakehouses.
- 5 Kitchen Bakehouses.

ICE CREAM AND MILK SHOPS.

These have been regularly visited during the year, and no complaints have to be recorded.

KNACKER'S YARD.

123 visits have been paid to the knacker's yard, and although there have been no complaints, the premises are dilapidated and the plant is very much out of date. The licence for slaughtering has been granted subject to an undertaking from the owner that improvements will be carried out during the next twelve months.

The number of animals received at the yard was 67 cows and 194 horses.

Of the cattle, 51, or 76.12 per cent., were returned as tuberculous; and 16, or 23.88 per cent., as due to some form of inflammation or other causes.

FOOD AND DRUGS.

The Annual Report of the Borough Analyst will be found on page 82.

MILK AND CREAM REGULATIONS, 1912 and 1917.

The following is a report made by Mr. Cass, Food and Drugs Inspector, with regard to the above Regulations, for the year 1919 :—

1. MILK AND CREAM not sold as preserved Cream.

	Number of samples examined for the presence of a preservative.	Number in which a preservative was reported to be present.
Milk... ..	84	Nil.
Cream	0	Nil.

2. CREAM sold as preserved Cream :—None taken.

SCAVENGING.

This work is carried out by the Cleansing Department, which has its own Superintendent, by whom a separate report is made.

HOUSING.

In October, 1919, particulars with regard to the Housing problem were obtained for the Housing Commissioner, and of which the following are the main features ;—

INDUSTRIAL.

The chief industries are cotton spinning and manufacturing and engineering.

No industrial development anticipated.

No reduction anticipated.

POPULATION.

Pre-war population, 59,213.

Average annual increase of population before the war, 305.

Estimated present population, 51,851.

EXISTING HOUSING ACCOMMODATION.

Number of dwelling-houses in the district, 13,387.

Number of working-class dwellings, containing not more than parlour, living-room, scullery, and four bedrooms, 12,772.

Average number of working-class houses built annually during five years before the war, 136,

Number of working-class houses built between January 1st, 1915, and December 31st, 1918, 79.

OVERCROWDING.

Number of tenements with more than two occupants per room, 124.

Total number of occupiers, 1,168.

Number of houses intended for one family being used by two or more families, 236.

RENTS.

Prevailing rents of the various types of working-class houses ranged from 3s. 9d. and poor rate to 7s. 6d. and all rates.

ESTIMATE OF HOUSING NEEDS.

To meet the unsatisfied demand for houses on account of growth of population, overcrowding, &c., 360.

To re-house persons to be displaced by the clearance of unhealthy areas, 59.

To replace other dwellings unfit for human habitation and cannot be made fit, 295.

To replace obstruction or other buildings (now inhabited and not included under the last heading) which should be demolished, 70.

UNHEALTHY AREAS.

Two unhealthy areas exist in the Borough—one at Pimhole, consisting of 47 houses and an approximate population of 185, and one at Lower Hinds, with 12 houses and a population of 48.

The property at Pimhole is very old, has insufficient closet accommodation and no proper drainage system. The streets are unpaved. The houses are huddled together, so that it is impossible for most of them to get sufficient light and air. Many of the houses have no through ventilation.

Lower Hinds property is very old and dilapidated, with no proper drainage system. The yards and streets are unpaved.

INSANITARY HOUSES.

Number of inhabited houses which are not and cannot be made fit for human habitation, 365.

Number of persons inhabiting these houses, 1,331.

Number of closing or demolition orders made, none.

Number of houses seriously defective but can be made habitable, 131.

PROPOSED ACTION.

Action is to be taken when new houses are provided in connection with houses which are not and cannot be made fit for human habitation.

Immediate action to be taken to have made habitable those houses which are seriously defective but can be made habitable.

NEW HOUSES.

The approximate number of new houses to be provided was as follows :—

300 houses with living-room, scullery, and two bedrooms.

150 „ „ „ „ three „

150 „ parlour, living-room, scullery, and three
 bedrooms.

These numbers are subject to adjustment when the scheme is further developed.

Approximate acreage of land to be acquired, 26½.

Average number of houses per acre, 12.

HOUSING SURVEY SUMMARY, 1919.

Wards.	Number of Houses.	Two Rooms	Three Rooms	Four Rooms	Five Rooms	Six Rooms	Seven Rooms	Over Seven Rooms	Houses without through ventila- tion. Back to Back and others.	Houses unfit for Human Habi- tation.	Ob- struc- tive Houses	Houses in Insani- tary Areas.	Over- crowd'd Houses than one family.	Houses occup'd by more than one family.
Moorside...	3625	45	11	2140	294	854	127	154	106	43	32	0	39	70
East.....	2958	72	15	2002	291	458	59	61	91	88	38	0	29	82
Church ...	1092	24	3	687	113	132	33	57	102	22	0	12	16	14
Redvales...	2560	49	5	1336	181	756	67	176	83	65	0	47	11	31
Elton	3152	56	12	2083	262	544	45	150	173	77	0	0	29	39
Totals ...	13387	246	46	8248	1141	2744	331	598	555	295	70	59	124	236

34 Houses-let-in-Lodgings. No. of Rooms 178, Registered for 426 persons.

9 Common Lodging Houses. No. of Rooms 77, Registered for 358 persons.

SUMMARY OF VISITS OF THE HEALTH VISITORS.

- 738 visits to houses where births have been registered.
- 2478 re-visits to children under one year of age.
- 5028 ,, ,, over one and under five years of age.
- 178 visits to expectant mothers.
- 247 re-visits ,, ,,
- 67 visits to houses in which deaths in infants under one year of age have occurred.
- 2612 re-visits to babies during the summer diarrhoea season.
- 168 visits to Mothers' Welcome.
- 812 visits to homes in which cases of suspected Measles, Whooping Cough, Ringworm, &c., existed.
- 108 visits to houses in which cases of Tuberculosis have been notified.
- 1979 re-visits ,, ,, ,, ,, ,, ,,
- 207 visits to houses in which cases of Measles have been notified.
- 10 re-visits ,, ,, ,, ,, ,, ,,
- 95 visits to houses in which cases of Chicken-pox have been notified.
- 6 re-visits ,, ,, ,, ,, ,, ,,
- 11 visits to cases of Ophthalmia Neonatorum.
- 20 re-visits ,, ,, ,, ,,
- 3 visits to cases of Puerperal Fever.
- 57 visits to Midwives.
- 25 visits to homes of outworkers.
- 191 miscellaneous visits.

SUMMARY OF VISITS OF THE SANITARY INSPECTORS.

Infectious and contagious diseases	406
Common lodging-houses	400
Houses let in lodgings... ..	590
Factories and Workshops	205
Canal boats (wharf)	14
Public Buildings... ..	3
Re Premises to cleanse and repair	279
„ Houses damp	10
„ „ overcrowded	8
„ „ insufficient water supply	4
„ „ defective water pipes and fittings	4
„ Flooded cellars	21
„ Defective rain-water spouts and eaves-gutters..	208
„ Drains choked, dilapidated, and untrapped ...	696
„ Testing drains and fittings	12
„ Defective waste pipes	8
„ Water closets	455
„ Urinals	5
„ Privy middens and ashpits	526
„ Manure	18
„ Accumulation of refuse	59
„ Foul ditches, water courses, &c.	1
„ Animals kept as to be a nuisance	15
„ Defective and foul yard pavements	3
„ Defective chimney flues	2
„ Dangerous places	13
„ Work in progress	187
„ Appointments and nuisances of a general character	691

TABLE I.

Table showing Number of Deaths and Rates of the Principal Infectious Diseases for the past Ten Years.

	1910		1911		1912		1913		1914		1915		1916		1917		1918		1919	
	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000
Smallpox ...	0	0	0	0	0	0	0	0	0	0	0	0	1	0.02	0	0	0	0	0	0
Measles ...	8	0.13	26	0.44	8	0.13	25	0.42	2	0.03	25	0.45	1	0.02	5	0.10	11	0.21	1	0.02
Whooping C.	0	0	12	0.20	22	0.37	1	0.02	15	0.25	4	0.07	9	0.17	3	0.06	8	0.15	0	0
Scarlet F'v'r	19	0.32	10	0.17	4	0.07	7	0.12	8	0.13	5	0.09	2	0.04	0	0	1	0.02	0	0
Diphtheria ..	8	0.13	5	0.09	1	0.02	8	0.13	6	0.10	4	0.07	3	0.06	10	0.19	10	0.19	3	0.06
Enteric F....	3	0.05	0	0	2	0.03	3	0.05	1	0.2	0	0	0	0	2	0.04	2	0.04	1	0.02
Puerperal F.	2	0.03	3	0.05	1	0.02	3	0.05	0	0	1	0.02	0	0	2	0.04	0	0	2	0.04
Erysipelas ..	1	0.01	0	0	2	0.03	0	0	0	0	1	0.02	0	0	0	0	0	0	0	0
Diarrhoea ...	25	0.42	65	1.11	14	0.24	53	0.89	36	0.60	37	0.67	26	0.48	24	0.46	18	0.35	10	0.18
Influenza ...	7	0.12	8	0.14	4	0.07	10	0.17	18	0.30	26	0.47	16	0.30	10	0.19	146	2.86	133	2.45

TABLE II.

Table showing the Comparative Numbers of Sanitary Conveniences in the Borough in the Years
1902, 1915, 1916, 1917, 1918, 1919.

	1902	1915	1916	1917	1918	1919
Number of privies	5458	2875	2769	2727	2716	2673
Number of ashpits in connection with privies	2867	1606	1575	1564	1563	1548
Number of pails	795	378	347	346	344	328
Number of dry ashpits in connection with pails	397	234	228	228	227	224
Number of mill tanks	44	16	15	15	12	11
Number of fresh water closets	1909	5922	6104	6176	6208	6287
Number of waste water closets	1569	2687	2685	2684	2680	2676
Number of dry ashpits in connection with water closets ...	1042	2291	2314	2324	2324	2336
Number of bins in connection with water closets	374	1647	1725	1753	1753	1782

TABLE III.

RAINFALL for the Year 1919. BURY. (Yard, Parsons Lane).

JAN...	Total Rainfall 5.35in.				
	Greatest fall in 24 hours 0.62in., date January 20th.				
	No. of days on which 0.01in. or more fell = 28.				
FEB...	Total Rainfall 1.19in.				
	Greatest fall in 24 hours 0.54 in., date February 21st.				
	No. of days on which 0.01in. or more fell = 10.				
MAR...	Total Rainfall 7.06in.				
	Greatest fall in 24 hours 1.34in., date March 19th.				
	No. of days on which 0.01in. or more fell = 19.				
APRIL...	Total Rainfall 2.59in.				
	Greatest fall in 24 hours 0.46in., date April 14th.				
	No. of days on which 0.01in. or more fell = 16.				
MAY...	Total Rainfall 2.11in.				
	Greatest fall in 24 hours 0.70in., date May 1st.				
	No. of days on which 0.01in. or more fell = 11.				
JUNE...	Total Rainfall 1.67in.				
	Greatest fall in 24 hours 0.37in., date June 17th.				
	No. of days on which 0.01in. or more fell = 19.				
JULY...	Total Rainfall 2.07in.				
	Greatest fall in 24 hours 0.60in., date July 19th.				
	No. of days on which 0.01in. or more fell = 12.				
AUG...	Total Rainfall 3.87in.				
	Greatest fall in 24 hours 0.73in., date August 25th and 26th.				
	No. of days on which 0.01in. or more fell = 18.				
SEP...	Total Rainfall 1.88in.				
	Greatest fall in 24 hours 0.40in., date September 22nd & 24th.				
	No. of days on which 0.01in. or more fell = 12.				
OCT...	Total Rainfall 2.76in.				
	Greatest fall in 24 hours 0.92in., date October 23rd.				
	No. of days on which 0.01in. or more fell = 12.				
NOV...	Total Rainfall 3.74in.				
	Greatest fall in 24 hours 1.34in., date November 20th.				
	No. of days on which 0.01in. or more fell = 21.				
DEC...	Total Rainfall 7.05in.				
	Greatest fall in 24 hours 1.17in., date December 22nd.				
	No. of days on which 0.01in. or more fell = 26.				

	1919.	1918.	1917.	1916.	1915.
	ins.	ins.	ins.	ins.	ins.
Total Annual Rainfall	41.84	55.54	42.37	43.17	42.62
Total No. of days on which rain fell	199	216	193	220	186

TABLE IV.
THE BURY AND DISTRICT JOINT WATER BOARD.
RAINFALL AT WORKSHOP YARD, PARSONS LANE.

	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
January..	1.55	3.16	3.65	1.82	2.09	3.48	5.88	6.72	3.34	3.45	3.29	3.56	2.13	5.39	2.22	4.26	2.96	5.65	1.59	4.87	4.95	2.98	6.22	3.47	3.63	3.79	5.35
February	5.64	6.58	0.50	2.19	2.67	3.84	1.66	3.80	1.94	1.94	3.87	3.86	2.43	3.71	2.74	3.87	2.67	4.27	5.02	1.71	1.73	2.64	5.04	4.75	1.53	5.87	1.19
March ..	1.00	4.29	3.70	5.37	4.14	2.14	2.73	0.68	2.28	2.42	4.72	2.57	3.44	3.51	3.82	3.37	3.39	0.88	2.11	6.46	4.02	5.93	1.89	2.37	2.99	2.13	7.06
April	0.65	1.46	1.76	1.61	2.91	2.15	3.90	2.54	2.57	2.37	2.21	2.64	3.20	2.27	1.85	2.50	3.63	2.71	2.93	1.00	4.96	1.96	1.83	3.59	1.88	1.04	2.59
May	2.36	3.45	0.83	0.41	2.07	4.19	3.18	1.79	0.83	3.00	4.50	2.56	0.52	3.60	4.38	3.16	2.35	3.30	2.46	3.13	3.39	2.55	1.53	2.78	1.58	3.13	2.11
June	2.32	3.29	2.06	2.54	4.74	2.93	1.69	3.57	1.65	1.28	1.66	1.29	3.63	1.97	7.62	2.02	2.69	3.31	3.04	5.95	2.58	1.56	2.75	3.13	2.40	1.67	1.67
July	2.95	3.65	5.33	2.64	1.76	0.56	2.07	2.73	1.56	2.98	3.81	1.86	2.36	1.96	2.81	5.02	6.83	4.14	0.22	5.34	1.17	4.89	4.51	2.02	2.31	3.98	2.07
August ..	3.39	5.03	4.54	2.85	3.97	7.50	1.42	6.76	2.49	3.16	5.36	4.85	5.10	4.75	4.46	3.45	3.24	6.05	2.47	7.58	2.98	3.46	5.62	3.30	6.64	3.64	3.67
September	4.52	0.62	1.81	9.43	4.30	1.37	6.19	1.53	1.70	1.80	5.42	1.45	2.70	1.57	1.20	3.93	2.65	0.21	4.03	1.76	2.06	4.77	0.61	2.78	2.48	12.53	1.88
October..	4.15	4.40	4.07	4.39	2.30	4.37	3.19	6.19	2.82	4.67	9.24	2.38	3.54	7.03	4.09	1.83	5.68	3.58	3.74	5.50	2.01	2.74	1.95	8.52	9.17	4.39	2.76
November	3.68	2.93	3.74	1.49	5.14	3.26	1.48	3.73	6.01	2.39	3.90	4.20	4.49	3.59	3.56	3.03	1.62	5.43	4.50	3.57	5.05	5.90	2.31	3.10	5.35	2.87	3.74
December	4.27	4.30	5.04	5.97	5.43	4.33	3.21	5.50	3.18	3.48	2.06	3.03	0.69	5.01	4.24	3.12	8.01	4.33	7.25	5.34	2.90	6.49	8.36	3.34	2.41	10.10	7.05
TOTAL ..	36.48	43.36	37.03	40.71	41.52	40.12	36.60	45.54	30.62	32.90	50.04	34.30	34.13	44.41	42.93	39.56	45.52	43.05	39.36	52.21	38.80	45.87	42.62	43.15	42.37	55.34	41.34

ANNUAL REPORT OF THE BOROUGH ANALYST.

ANALYTICAL LABORATORIES,

54, ARCADE CHAMBERS, ST. MARY'S GATE,

MANCHESTER,

17th February, 1920.

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

Gentlemen,

I herewith beg to hand you my Annual Report upon the samples submitted to me for analysis during the year ended December 31st, 1919, by Inspector Cass.

These numbered 33, of which 32 were of milk, and one of port wine.

Of the samples of milk two were found to be below the standard, one having an addition of 15 per cent. of extraneous water and the other an abstraction of 16.7 per cent. of milk fats. In each case the vendors were prosecuted, convicted, and fined £10 and £2 respectively.

In about 20 per cent. of these milk samples the quality was low, barely reaching the standard; but in all cases the milk was clean and free from preservatives.

The sample of port wine was an informal one, supplied to the Inspector by a person who had purchased a bottle of wine from a local druggist for medicinal purposes. The sample proved to be genuine port wine, but had become greatly deteriorated by age.

The percentage of adulteration amounted to 5.4.

I remain,

Yours faithfully,

THOS. J. HUTCHINSON, F.I.C.,

Borough Analyst.

INDEX.



	PAGE
Abattoirs	67—69
Acreage of the Borough	7
Acute Poliomyelitis	36
Ages, Mortality at Different	16
Ainsworth Sanatorium	48—49
Aitken Sanatorium	48—49
Annual Rate of Mortality	7
Antitoxin in Diphtheria	31
Bacteriological Examinations	31, 32, 47
Bakehouses	70
Births	10, 15
Births Notification Act	24
Bronchitis	16—17
Calf Hey Reservoir	53
Canal Boat Acts	64
Cancer	51
Cause of, and Ages at, Death	13
Cerebro-Spinal Fever	36
Chicken-Pox	36
Committee, Health	2
Common Lodging-Houses	60
Contents.....	4
Coroner's Inquests	18, 19, 21
Croup, Membranous	30, 31
Dairies, Cowsheds, and Milkshops	70
Deaths of Non-residents	11
Deaths, Number of	11, 13, 14, 15
Deaths, Uncertified	19
Density of the Population	7
Diarrhœa	43—44
Diphtheria and Membranous Croup	30—31
Diseases of the Respiratory System	16—17
Disinfection	52
Dispensary, Tuberculosis	48—49
Dysentery	39

	PAGE
Elevation of the Borough	7
Enteric Fever	31—34
Enteric Fever—Analysis of Cases	34
Erysipelas	35—36
Estimated Population	9
Explosives Acts	62
Factories and Workshops	56—59
Farms	70
Feeding of Infants	23
Florence Nightingale Hospital—Cases Removed to	28
Food and Drugs	71
Gin Hall Reservoir	53
Hapton Reservoir	53
Health Visitors, Summary of Visits of the	76
Homeworkers	55
Hospital Accommodation for Infectious Diseases	40
Houses Let in Lodgings	61
Housing	72—75
Ice Cream and Milkshops	70
Illegitimacy	10—14
Infant Mortality	20—23
Infant Mortality, Analysis of	14
Infant Mortality of Chief Lancashire Towns	21
Infectious Diseases, Notification of	27—28
Infectious Diseases—Deaths and Rates in former years... ..	78
Influenza	45
Inquests	18, 19, 21
Institutional Treatment of Tuberculous Diseases... ..	48—49
Insurance of Infants	23
Knacker's Yard	71
Legal Summary	8—9
Lodging-Houses	60
Longevity	18
Malaria	39
Malignant Disease	51
Marriages	10
Maternity and Child Welfare	26

	PAGE
Measles	38—40
Meat Inspection	67—69
Membranous Croup	30—31
Midwives' Acts, 1902 and 1918	24—26
Midwives' Roll	24—25
Milk and Cream Regulations, 1912	71
Milk Supply	70
Mortality, Annual Rate of	7
Mortality, at different ages	16
Mortality, compared with other towns... ..	21
Mortality, Infant	20—23
Natural Increase or Decrease of Population	12
Neonatorum, Ophthalmia	36
Notification of Births Act	24
Notification of Infectious Diseases	27—28
Notification of Phthisis	50
Notification, School	40—42
Nuisances and Notices	65—66
Occupation and Phthisis	47
Occupation of Mothers	22
Offensive Trades	70
Old Age	18
Officials of Health Department	3
Outworkers	55
Ophthalmia Neonatorum	36
Petroleum Acts	61
Phthisis	17
Pneumonia	17, 39
Poliomyelitis, Acute	36
Pollution of Rivers, Prevention of	63—64
Population, Estimated	9
Population, Natural Increase or Decrease of	12
Premature Births	21
Prevention of Pollution of Rivers	63—64
Public Elementary Schools and Epidemic Diseases	40—42
Public Health (Tuberculosis) Regulations, 1912... ..	48, 50
Public Health (Measles & German Measles) Regulations, 1915	38
Public Health (Pneumonia, Malaria, Dysentery, &c.) Regulations, 1919	39
Puerperal Fever	35
Quarterly Returns of Infectious Diseases	28

	PAGE
Railway Cattle Docks	67
Rainfall	80—81
Report of Borough Analyst	82
Report of Canal Boat Inspector	64
Respiratory System, Diseases of	16, 17
Rivers, Prevention of Pollution of	63—64
Sale of Food and Drugs Acts	71
Sanatorium, Ainsworth	48—49
Sanatorium, Aitken	48—49
Sanitary Conveniences, Conversion of	79
Sanitary Inspectors, Summary of Visits of the	77
Scarlet Fever	29
Scavenging	71
School Closures	41—42
School Disinfection	42
School Notification of Infectious Diseases	40—42
Smallpox	37
Smallpox and Vaccination	37
Smoke Nuisance	62—63
Sputum, Examination of	47
Statistical Summary for 1919	7
Summary of Visits of the Health Visitors	76
Summary of Visits of the Sanitary Inspectors	77
Tuberculosis Regulations, 1912	50
Tuberculous Diseases	17, 46—49
Tuberculous Diseases, Institutional Treatment	48—49
Tuberculosis Dispensary	48
Typhoid Fever	31—34
Uncertified Deaths	19
Vaccination	37
Visits of Health Visitors, Summary of	76
Visits of Sanitary Inspectors, Summary of	77
Vital Statistics (whole district)	15
Venereal Diseases	45—46
Ward Distribution of Infectious Diseases	28
Ward Distribution, Pneumonia	17
Water Supply	53—54
Whooping Cough	40, 42—43
Workshops	56—59
Zymotic Diseases	21

