[Report 1918] / Medical Officer of Health, Barnsley County Borough.

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COUNTY BOROUGH OF BARNSLEY.

REPORT

ON THE

SANITARY CONDITION OF BARNSLEY

AND THE

WORK OF THE ISOLATION HOSPITAL

IN 1918,

SUBMITTED TO THE TOWN COUNCIL,

BY

F. A. SHARPE, M.D., B.S., D.P.H.,

LONDON,

MEDICAL OFFICER OF HEALTH.

SEPTEMBER, 1919.

Barnsley:

E. CHEESMAN, PRINTER, MARKET HILL.

1919.

County Borough of Barnsley.

HEALTH COMMITTEE, 1918-1919.

Alderman Holden, J.P. (Chairman).
,, Rose, J.P.
Councillor Bray, J.P.
,, Chappell, J.P.
,, Cotterill J.P.
,, Cretney.
Councillor England, J.P
,, Foulstone.
,, Plumpton, J.P.
,, Tipping.
,, Walker.
,, Wood.

MEDICAL OFFICER OF HEALTH, etc.

F. A. Sharpe, M.D., B.S., Lond. D.P.H.

ASSISTANT TUBERCULOSIS OFFICER.

M. Lyon Mercado, L.R.C.P. & S.

HEALTH VISITORS.

E. Barber. E. Heyes. A. Petford.

TUBERCULOSIS NURSE.

A. M. Blackmore.

CLERKS.

H. I. Bayford. G. Roberts. M Oldham.

COUNTY BOROUGH OF BARNSLEY.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1918.

To the Chairman and Members of the Health Committee of the Barnsley County Borough Council.

GENTLEMEN,

I beg herewith to submit to you the Annual Report on the Health of the Borough during the year 1918.

For the first time in its history I have to record the fact that there were actually more deaths than births in the Borough. In the early part of the year we suffered from the severest epidemic of Measles, of which there is a record, and, later, a three-fold epidemic of Influenza, causing many times more deaths than any previous epidemic. These two diseases alone caused more than half the average annual number of deaths from all causes.

The number of deaths from Tuberculosis and from Respiratory Diseases were much increased, while those from the ordinary Infectious Diseases were again practically negligable. For the third year in succession, the deaths from Diarrhœal Diseases were gratifyingly low, and the Infant Mortality was very low, considering the Mortality at all ages ; in fact, the deaths of infants expressed as a percentage of the deaths at all ages was less than half the average obtaining in the previous ten years.

The Birth Rate, which had steadily declined from 30 per 1,000 in the four pre-war years to 22 in 1917, shewed an upward tendency of over two per 1.000.

It is obvious to all that we can expect no further advance in sanitation until the Housing conditions of the population are drastically improved. I am convinced that when the population now living under bad hygienic conditions is suitably provided for, we shall experience not only a reduced mortality but a longer expectation of life. In this connection it must be emphasised that Housing consists not only in providing new houses, but in re-constructing those areas which are in the main unhealthy. It is to be hoped that in the near future all work places, particularly Mines, will be provided with facilities for cleansing both the person and the clothing. The improvement in the amenities of life especially affecting the housewife will make the expenditure and trouble well worth while.

I regret to say that our proposals for the treatment of Venereal Diseases have not yet taken practical form. The necessity for providing treatment is vital.

The treatment of Tuberculosis is still far from satisfactory. It seems that our responsibility to each Tuberculosis patient must be life long. His needs as to Sanatorium treatment are only a part of the whole. We must, in order to obtain good results, treat the disease, if necessary train him to a more suitable occupation, and guarantee the social and financial position of his dependants until he is not only cured, but in a position to maintain his position in his altered sphere.

The scheme for further work in connection with Maternity and Child Welfare at Pindar Oaks holds out much promise.

The conversion of the remaining Privy Middens to the Water-carriage System, which was stopped by the War, should be vigorously pressed to a conclusion, and, at the same time, the paving of common back-yards should form an integral part of our reform policy.

The system of Refuse disposal, dealt with in the Sanitary Inspector's Report, is now in an unsatisfactory state. The provision of a Destructor and the substitution of horse-power by mechanical-power seem to be the more prominent requirements.

With regard to food, Sugar and Milk are still under the control of the Food Ministry.

In our present arrangements for the slaughter of animals, cattle and sheep are dealt with at the slaughter-house belonging to the Barnsley British Co-operative Society, and pigs at two adjoining slaughter-houses temporarily leased and altered for the purpose by the Food Control Committee. These arrangements, which have been satisfactory, will lapse in September. It is to be hoped that other arrangements will shortly be made, enabling the Committee to assure themselves to an equal extent of the satisfactory inspection and control of meat.

Thanking you, Mr. Chairman and Gentlemen, for your kind assistance and consideration.

I am,

Your obedient servant,

F. A. SHARPE.

M.D., B.S. (London) D P.H.,

July, 1919. *Medical Officer of Health, &c.*

TABLE I.

Summary of Vital Statistics for the year 1918, in the various Wards of the Borough.

Wards.	Estimated Total Population.	Nett Births.	Rate per 1000 living.	Illegitimate Births.	Rate per 1000 born.	Estimated Civilian Population.	Nett Deaths.	Rate per 1000 living.	Deaths of Infants.	Rate per 1000 born.	Deaths of Illegitimate Infants.	Rate per 1000 Illegitimate Infants' Born.
North ..	7440	169	**22·71**	9	**53**	6638	195	**29·37**	31	**183**	2	**222**
South ..	8591	166	**19·32**	17	**102**	7669	190	**24·77**	32	**193**	5	**294**
East ..	4904	131	**26·71**	12	**91**	4377	113	**25·81**	15	**114**	2	**166**
West ..	8373	202	**24·12**	27	**133**	7473	204	**27·29**	34	**168**	9	**333**
South-East.	18030	465	**25·79**	34	**73**	16090	500	**31·08**	74	**159**	8	**235**
South-West	5778	136	**23·53**	12	**88**	5158	157	**30·43**	19	**140**	1	**83**
Unknown ..	..	3	..	1	..	..	3	..	..	..	1	..
BOROUGH.	**53116**	**1272**	**23·94**	**112**	**88**	**47405**	**1362**	**28·73**	**205**	**161**	**28**	**250**

TABLE II.

Vital Statistics of the County Borough of Barnsley during 1918, and the preceding Ten Years.

Year.	Total Population, Civil and Military, Estimated to the middle of the year.	Nett Births.		Civil Population only.	Total Deaths Registered at all Ages.		Total Deaths in Public Institutions.	Outward Transfers.	Inward Transfers.	Nett Deaths at all Ages		Nett Deaths under 1 year of age.		Nett Deaths under 1 year.	Nett Deaths under 5 years.	Zymotic Death Rate. (Influenza included.)
		Number	Rate.		Number	Rate.				Number	Rate.	Number	Rate per 1000 born.	Per cent. of Total Deaths.		
1908	45500	1624	35·69	45500	913	20·06	167	77	24	860	18·90	263	161	30·58	43·14	3·69
1909	46500	1614	34·70	46500	848	18·24	134	64	23	807	17·36	218	135	27·02	40·73	2·34
1910	48000	1581	32·95	48000	794	16·54	111	55	22	761	15·86	244	154	32·06	45·83	3·10
1911	51000	1543	30·26	51000	1102	21·61	177	94	48	1056	20·70	326	211	30·87	49·91	6·00
1912	51500	1565	30·38	51500	769	14·93	157	64	40	745	14·46	158	100	21·20	33·42	1·86
1913	52500	1604	30·55	52500	913	17·39	126	86	32	859	16·36	235	146	27·36	41·09	2·66
1914	54000	1645	30·51	54000	1007	18·64	176	81	34	960	17·77	254	154	26·45	42·50	3·64
1915	53929	1464	27·14	*50409*	994	19·71	189	101	41	934	18·52	252	172	26·90	44·20	4·00
1916	53512	1391	25·99	*49183*	892	18·13	236	169	28	751	15·27	159	111	21·17	31·82	1·42
1917	53443	1195	22·36	*47943*	826	17·23	218	137	36	725	15·12	162	135	22·34	32·68	1·37
Average for ten years, 1908 to 1917	50988	1523	29·88	*49653*	905	18·24	169	92	32	845	17·01	227	149	25·07	41·19	3·02
1918	**53116**	**1272**	**23·94**	*47405*	**1489**	**31·41**	**278**	**185**	**58**	**1362**	**28·73**	**205**	**161**	**11·08**	**41·04**	**10·55**

TABLE III.

Deaths Registered during the Calendar Year 1918, Classified according to Age and Cause of Death.

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 Borough.
	All Ages.	Under 1 year.	1 and under 2 years	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 years and upwards.	
All Causes { Certified	1362	205	162	192	145	77	167	211	203	278
All Causes { Uncertified	...	...	...	...	...	...	...	...	...	...
1. Enteric Fever	2	...	...	...	...	...	2	...	...	1
2. Small Pox	...	...	...	...	...	...	...	...	...	...
3. Measles	233	24	72	99	38	...	...	...	...	3
4. Scarlet Fever	...	...	...	.	...	...	...	...	...	...
5. Whooping Cough	15	3	7	4	1	...	...	...	...	1
6. Diphtheria	6	...	1	4	1	...	...	...	...	...
7. Influenza	226	6	11	29	46	28	56	35	15	7
8. Erysipelas	...	...	...	...	...	...	...	...	...	...
9. Phthisis Pulmonalis	83	.	...	2	10	19	38	14	...	11
10. Tubercular Meningitis	3	1	...	1	1	...	...	...	...	...
11. Other Tubercular Diseases	19	4	2	5	3	2	2	1	...	9
12. Cancer	55	...	...	...	...	1	6	33	15	18
13. Rheumatic Fever	2	...	...	...	...	1	...	1	...	..
14. Meningitis	15	4	1	3	4	3	...	...	...	1
15. Organic Heart Disease	55	...	...	...	4	1	6	15	29	11
16. Bronchitis	93	22	13	14	3	1	3	20	17	8
17. Pneumonia (all forms)	157	20	31	17	19	7	13	31	19	15
18. Other Respiratory Diseases	6	2	...	1	...	...	1	2	...	...
19. Diarrhœa and Enteritis	32	25	7	...	...	...	...	...	...	1
20. Appendicitis and Typhlitis	1	...	...	...	1	...	...	...	...	2
21. Cirrhosis of Liver	2	...	...	...	...	...	...	2	...	...
21a. Alcoholism	...	...	...	...	...	...	...	...	...	...
22. Nephritis and Bright's Disease	20	...	...	...	...	...	5	9	6	39
23. Puerperal Fever	2	...	...	...	...	1	1	...	..	. .
24. Other Accidents and Diseases of Pregnancy and Parturition	5	...	...	...	...	1	4	...	...	2
25. Congenital Debility and Malformation (including Premature Birth)	75	73	2	...	...	...	...	...	...	4
26. Violent Deaths (excluding Suicide)	47	7	6	4	1	5	12	11	1	37
27. Suicide	6	...	...	...	1	1	2	1	1	...
28. Other Defined Diseases	200	14	8	9	11	6	16	36	100	107
29. Ill-defined Diseases or unknown	2	...	1	...	1	...	...	...	...	1
Totals	1362	205	162	192	145	77	167	211	203	278

TABLE IV.

WARD ALLOCATION OF NETT DEATHS.

	Causes of Death.	North.	South.	East.	West.	South-East.	South-West.	Unknown.	Totals.
1	Enteric Fever	..	1	..	..	1	..	..	2
2	Small Pox	..	..	..	..	..	..	..	..
3	Measles	30	37	21	26	88	31	..	233
4	Scarlet Fever	..	..	..	..	..	..	..	..
5	Whooping Cough	4	3	..	1	7	..	..	15
6	Diphtheria	2	..	1	..	2	1	..	6
7	Influenza	26	37	16	32	91	23	1	226
8	Erysipelas	..	..	..	..	..	..	..	..
9	Phthisis Pulmonalis	10	13	10	8	31	11	..	83
10	Tubercular Meningitis	..	..	..	2	1	..	..	3
11	Other Tubercular Diseases ..	3	..	1	7	5	3	..	19
12	Cancer	9	5	3	16	16	6	..	55
13	Rheumatic Fever	1	..	..	1	..	..	..	2
14	Meningitis	4	5	..	2	2	2	..	15
15	Organic Heart Disease	6	12	1	12	16	8	..	55
16	Bronchitis	21	10	10	14	32	6	..	93
17	Pneumonia (all forms)	23	19	13	25	63	14	..	157
18	Other Respiratory Diseases ..	1	..	..	1	3	1	..	6
19	Diarrhœa and Enteritis	3	5	4	4	13	3	..	32
20	Appendicitis and Typhlitis ..	..	..	..	..	1	..	..	1
21	Cirrhosis of Liver	..	2	..	..	..	..	..	2
21a	Alcoholism	..	..	..	..	..	..	..	..
22	Nephritis and Bright's Disease ..	2	1	4	3	6	3	1	20
23	Puerperal Fever	..	..	2	..	..	..	..	2
24	Other Accidents and Diseases of Pregnancy and Parturition ..	..	..	1	..	4	..	..	5
25	Congenital Debility and Malformation (including Premature Birth)	13	13	2	11	26	10	..	75
26	Violent Deaths (excludiug Suicide)	9	5	8	4	16	5	..	47
27	Suicides	2	..	..	1	2	1	..	6
28	Other Defined Diseases	25	22	16	34	74	28	1	200
29	Diseases ill-defined or unknown ..	1	..	..	..	..	1	..	2
	TOTALS.	195	190	113	204	500	157	3	1362

TABLE V.—INFANTILE MORTALITY, 1918.

NETT DEATHS from stated causes at various Ages under 1 Year of Age.

Causes of Death.	Under 1 week	1—2 weeks.	2—3 weeks.	3—4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 months and under 6 months	6 months and under 9 months.	9 months and under 12 months.	Total Deaths under 1 year.
All causes { Certified	48	4	6	12	70	32	39	31	33	205
All causes { Uncertified	..	..	..	..	..	..	..	..	..	.
Measles	..	..	..	..	..	2	3	7	12	24
Whooping Cough	..	..	..	..	..	1	..	2	..	3
Tuberculous Meningitis	..	..	..	..	..	..	..	..	1	1
Abdominal Tuberculosis	..	..	..	..	..	..	1	2	1	4
Convulsions	2	..	..	..	2	..	..	..	..	2
Bronchitis	..	1	2	1	4	4	6	5	3	22
Pneumonia	..	..	..	..	..	2	7	4	7	20
Diarrhœa	..	..	..	1	1	1	9	5	5	21
Gastritis	..	..	1	1	2	..	..	1	1	4
Syphilis	..	..	..	..	..	..	1	..	..	1
Found Dead on the ice from want of assistance at Birth	1	..	..	..	1	..	..	..	..	1
Suffocation, overlying	1	..	..	..	1	2	..	1	..	4
Injury at Birth	1	..	..	..	1	..	..	..	..	1
Cerebral Hæmorrhage	1	..	..	..	1	..	..	..	..	1
Congenital Malformation	3	..	1	..	4	..	..	..	..	4
Premature Birth	29	1	2	3	35	6	2	..	..	43
Atrophy, Debility, and Marasmus	8	1	..	3	12	10	4	..	..	26
Influenza	..	..	..	..	..	2	3	1	..	6
Meningitis	..	..	..	..	..	1	..	2	1	4
Other Causes	2	1	..	2	5	..	3	1	2	11
Other Respiratory Diseases	..	..	..	1	1	1	..	..	..	2
Totals	48	4	6	12	70	32	39	31	33	205

Nett Births registered during the calendar year—

Legitimate 1,160
Illegitimate 112

Nett Infant Deaths—

Legitimate 177
Illegitimate 28

The following table supplied by the Registrar General affords a ready means of comparing the Birth Rate, Death Rate, and Analysis of Mortality during the year 1918 for the country as a whole, the 96 great towns, the 148 smaller towns, and London, with Barnsley, the figures for which I have inserted in the Registrar General's table.

It will be seen that if our Birth Rate, Infant Mortality, and Death Rates had equalled those prevailing in the country as a whole, the number of children born would have been 941 instead of 1,272, the number of deaths 835 instead of 1,362, and 70 more infants would have reached one year of age.

The Mortality Rates from Enteric Fever, Small Pox, Scarlet Fever, Whooping Cough, and Diphtheria agree closely with the general experience, while that from Measles is seventeen times the average.

The high rate from Deaths due to violence is accounted for by the nature of our staple industry, coal mining.

The rate from Diarrhœa and Enteritis is more than double that generally prevailing, thus repeating the experience in 1916 and former years.

TABLE VI.

BIRTH-RATE, DEATH-RATE, and ANALYSIS of MORTALITY during the Year 1918.

(Provisional figures. Populations estimated to the middle of 1918 have been used for the purposes of this Table.)

	Birth Rate per 1,000 Total Population.	Annual Death Rate per 1,000 Civilian Population.								Rate per 1,000 Births		Percentage of Total Deaths.*			
		All Causes.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping-cough.	Diphtheria.	Violence.	Diarrhœa and Enteritis (under 2 years).	Total Deaths under One Year.	Deaths in Public Institutions.	Certified Causes.	Inquest Cases.	Uncertified Causes of Death.
England and Wales	17·7	17·6	0·03	0·00	0·28	0·03	0·29	0·14	0·49	10·99	97	24·3	93·3	5·4	1·3
96 Great Towns, including London (Census Populations exceeding 50,000)	17·6	18·2	0·02	0·00	0·36	0·04	0·34	0·15	0·49	14·46	106	28·4	93·4	5·8	0·8
148 Smaller Towns (Census Populations 20,000—50,000) .	17·9	16·1	0·03	..	0·25	0·02	0·25	0·14	0·38	9·73	94	15·4	94·5	3·9	1·6
London	16·1	18·9	0·02	..	0·42	0·03	0·43	0·17	0·56	15·67	107	45·0	92·5	7·3	0·2
County Borough of Barnsley.	**23·94**	**28·73**	**0·04**	..	**4·91**	..	**0·31**	**0·12**	**0·99**	**25·15**	**161**	**20·4**	**94·4**	**5·6**	**0·0**

* Non-civilians are included in these figures for England and Wales, but not for other areas.

TABLE VII.

	Births per 1,000 Total Population.		Deaths per 1,000 Living.		Deaths under One year per 1,000 Births.	
	England and Wales.	Barnsley.	England and Wales.	Barnsley.	England and Wales.	Barnsley.
1908	26·5	35·69	14·7	18·90	121	161
1909	25·6	34·70	14·5	17·36	109	135
1910	24·8	32·95	13·4	15·86	106	154
1911	24·4	30·26	14·6	20·70	130	211
1912	23·8	30·38	13·3	14·46	95	100
1913	23·9	30·55	13·7	16·36	109	146
1914	23·6	30·51	13·9	17·77	105	154
1915	21·9	27·14	15·1	18·52	110	172
1916	21·6	25·99	14·0	15·27	91	111
1917	17·7	22·36	14·4	15·12	97	135
1918	17·7	23·94	17·6	28·73	97	161

INQUESTS.—There were 96 inquests held on persons who had died in the Borough, and 12 on Borough residents who had died outside. The causes of death as certified by the Coroner are summarized as follows :—

TABLE VIII.

Cause of Death.	Borough Residents.		Residents died outside Borough.		Strangers.	
	Male	Female	Male	Female	Male	Female
A (1) Natural Causes—						
Phthisis	2	3	..	..	..	..
Heart Failure	5	6	2	..	3	..
Pneumonia	2	2	..	..	..	..
Apoplexy	..	2	..	..	..	..
Nephritis	..	1	..	..	..	..
Difficult Labour (Infant)	1	..	..	..	..	..
Cerebral Hæmorrhage	..	1	..	..	..	..
Hæmorrhage	1	1	..	..	1	..
Toxœmia and Hœmorrhage	1	..	..	..	..	..
Septicæmic	1	..	..	..	1	..
Influenza	..	3	..	..	..	1
Septic Bed Sores	..	..	..	..	1	..
Tetanus	..	..	..	..	1	..
Urœmia	..	..	..	..	..	1
Pericardial Effusion	..	..	..	..	..	1
(2) Natural Causes— (accelerated by neglect)						
Rickets	..	1	..	..	..	..
Ulcer	1	..	..	..	..	..
B Violence—						
(1) Accidental—						
Scalded by boiling water	..	..	..	..	1	1
Burns (*a*) Falling into fire	..	..	..	..	1	1
,, (*b*) Clothes catching fire	1	3	..	..	1	3
,, (*c*) Playing with fire	..	1	..	..	..	..
Run over by Motor Vehicle	2	1	..	..	1	..
Knocked down by Aeroplane	1	..	..	..	..	..
Fall down stairs	1	1	..	..	..	1
Found dead on ice from want of assistance at birth	..	1	..	..	..	..
Suffocated	1	4	..	..	..	1
Premature Birth	1	1	..	..	..	..
Fall from Bicycle	..	..	..	..	1	..
,, over a Wall	..	..	..	..	1	..
,, into Bath	..	..	..	..	1	..
Unlawful Abortion	..	..	..	..	..	1
C Occupational Accidents—						
Fall from Coke Ovens to Floor	1	..	..	..	..	..
Colliery Surface—						
Fall in Yard	..	..	..	..	1	..
Crushed by Wagon	..	..	..	..	3	..
Run over by Light Engine	..	..	1	..	..	..
Colliery Underground—						
Crushed by Tubs	..	..	1	..	4	..
Caught by Rope	..	..	1	..	1	..
Fall of Roof	1	..	5	..	2	..
Fall of Side	..	..	1	..	..	..
D Suicide—By Drowning	..	2	..	..	..	..
By Poisoning	..	1	..	..	..	..
By Hanging	1	1	..	1	..	..
Totals	24	36	11	1	25	11

INFECTIOUS DISEASES.

The outstanding feature of the year has been the extraordinarily prevalent and fatal epidemic of Measles in the first half of the year, and the equally fatal outbreaks of Influenza, which occurred in the summer and late autumn of 1918 and spring of 1919. These are referred to later in some detail.

Diphtheria, Scarlet Fever and Enteric Fever failed to make their appearance in epidemic form, although 56 cases of the first named were notified, as compared with 24 in 1917, 53 in 1916, and 42 in 1915.

It is highly satisfactory to note the continued low number of cases of Puerperal Fever, only 5 cases having occurred in the last four years.

The large increase in the number of cases of Ophthalmia Neonatorum is giving rise to some apprehension owing to the devastating effect of the disease if untreated. It is satisfactory to note that of our 39 cases, complete recovery was effected in each instance Two principal interdependant factors concerned in this increase are the lowering of the moral standard of conduct as reflected by the rise in the illegitimate Birth Rate, *i.e.*, 88 for 1918, as against a decennial average (1908-1917) of 64·7, and the large increase of Venereal Disease in the civil population consequent upon demobilisation, a phenomenon which has always been observed to accompany war.

TABLE IX.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1918.

Notifiable Disease	Number of Cases Notified.								Total Cases Notified in each Ward.						Removed to Kendray Fever Hospital
	At all Ages.	Under 1 year.	1 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 years and upwards.	North Ward.	South Ward.	East Ward.	West Ward.	South-East Ward.	South-West Ward.	
Diphtheria (including Membranous Croup	56	...	10	35	8	3	...	...	15	7	7	8	15	4	54
Erysipelas	24	...	1	5	2	8	8	...	1	2	5	6	9	1	...
Scarlet Fever	30	1	6	19	3	1	...	..	10	1	6	3	10	...	25
Enteric Fever	5	...	...	3	...	2	...	...	...	2	1	1	1	...	2
Puerperal Fever	1	...	...	..	...	1	...	...	...	...	1	...	...	...	1
Ophthalmia Neonatorum ...	39	39	...	...	...	...	...	...	7	3	3	6	15	5	...
Pulmonary Tuberculosis ...	201	1	7	55	50	64	23	1	26	33	13	29	77	23	...
Other Forms of Tuberculosis ..	50	3	5	32	5	1	4	...	6	6	3	7	21	7	...
Acute Polio Myelitis	3	...	..	1	2	...	...	...	...	...	1	1	1	...	...
Measles	2689	132	1481	1055	20	1	...	...	284	445	256	453	860	391	126
German Measles	3	...	...	2	1	...	...	...	...	1	1	...	...	1	...
Totals	3101	176	1510	1207	91	81	35	1	349	500	297	514	1009	432	208

TABLE X.

NOTIFIABLE INFECTIOUS DISEASES—Table shewing Period of Prevalence.

	Jan.	Feb.	Mar.	April	May	June	July	Augst.	Sept.	Oct.	Nov.	Dec.	Total.
Diphtheria	6	12	5	6	5	7	...	6	2	3	3	1	56
Erysipelas	4	4	2	5	...	1	3	1	2	1	1	...	24
Scarlet Fever	4	...	4	1	6	4	2	2	2	4	...	1	30
Enteric Fever	...	...	...	...	3	...	...	1	1	...	...	...	5
Puerperal Fever	...	...	...	..	...	...	...	...	...	1	...	...	1
Ophthalmia Neonatorum ...	6	1	1	3	3	3	5	7	2	2	2	4	39
Pulmonary Tuberculosis ...	34	32	20	16	13	11	11	17	16	17	6	7	200
Other Forms of Tubercul.	7	6	7	5	10	2	...	1	...	5	...	...	43
Acute Polio Myelitis ...	...	...	2	1	...	...	...	...	...	...	...	...	3
Measles	93	228	667	417	604	472	102	33	8	65	...	...	2689
German Measles	...	...	...	2	1	...		...	...	...	...	...	3
Total	154	283	708	456	645	500	123	68	33	98	12	13	3093

TABLE XI.

Malaria and Phthisis Cases notified by Military Authorities as occurring among men discharged or on furlough.

	January.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	October.	Nov.	Dec.	Total.
Malaria ..	..	..	2	2	5	7	5	3	4	1	2	5	36
Phthisis ..	..	1	..	..	..	..	..	..	1	..	..	..	2
Total ..	..	1	2	2	5	7	5	3	5	1	2	5	38

INFLUENZA.

The Pandemics of Influenza which swept over the whole world in the summer and later in the winter of 1918, only to re-appear in the spring of 1919, have been, as far as is known, without precedent. Epidemics causing serious mortality have, of course, occurred in previous years, the last serious outbreak being in 1891–1892. Owing to the shortness of the incubation period, the extreme infectivity of all cases whether confined to bed or able to go to work, and the lack of knowledge as to the causative agent, sanitary measures as now practised seem to have effected no beneficial influence on the progress of the epidemic.

Thus in the three phases of the epidemic, a population of 1,538 persons living in houses where fatal cases occurred, suffered 844 cases, of which 332 proved fatal. It is probable that from one third to a half of the population contracted the disease. The prominent features of the epidemic were (1) the sudden universal infection. Thus a factory in the Borough reported that on a given date over one hundred operatives present the day before had failed to come to work, and reports from Schools were received showing a drop in the percentage attendance from 90 to 50 in a week. (2) The rapid rise and fall in the number of cases (*see Chart*). (3) The tendency of the disease to cause pulmonary complications. Eighty per cent. of the fatal cases died of Pneumonia or Bronchitis. (4) The tendency of the disease to attack young and old alike, instead of as in previous epidemics, to bear more hardly on the middle aged and elder people.

The information at our disposal is scanty, and relates to enquiries made in houses where fatal cases had occurred. Two deaths occurred three months before the epidemic appeared.

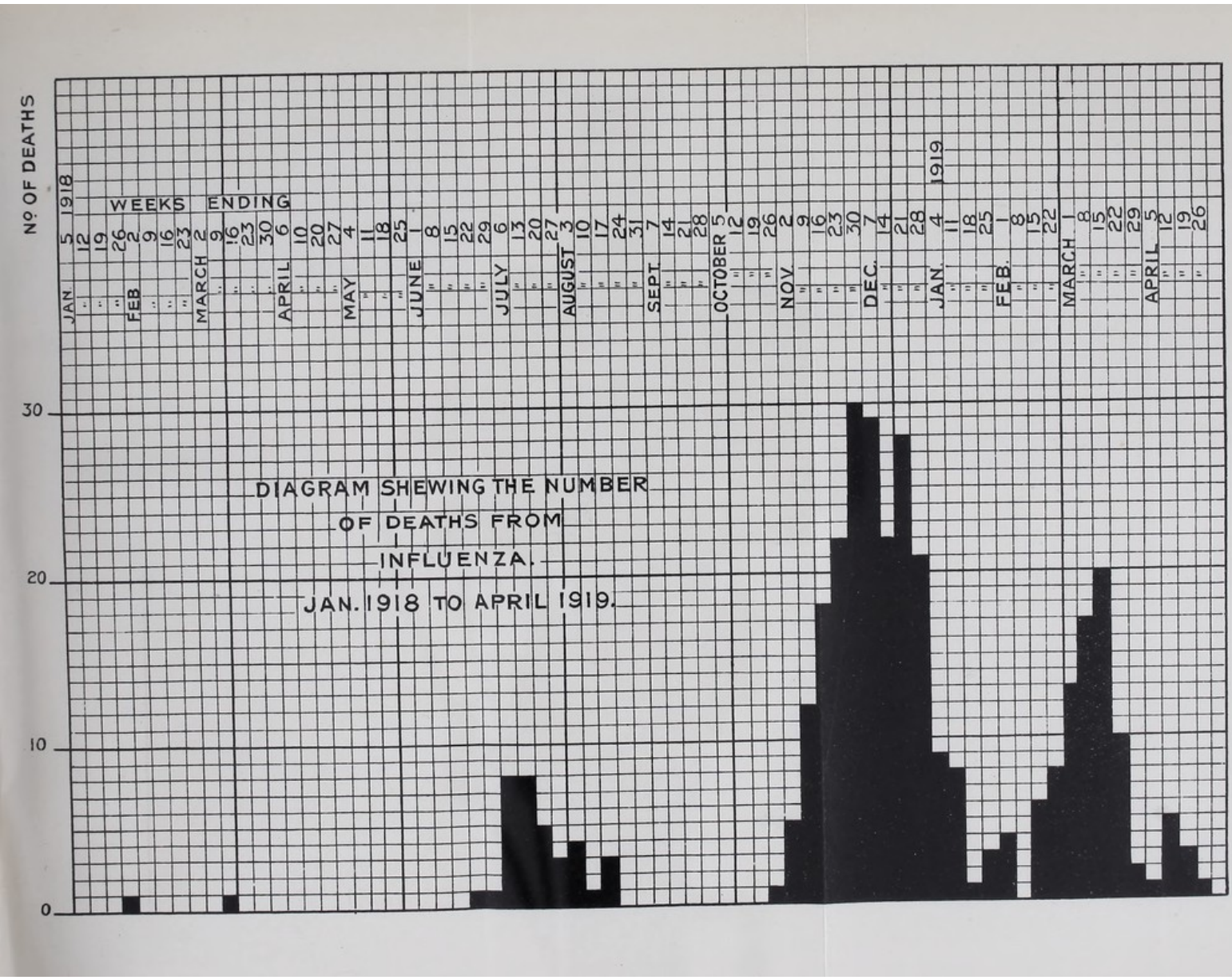


DIAGRAM SHEWING THE NUMBER
OF DEATHS FROM
INFLUENZA.
JAN. 1918 TO APRIL 1919.
Nº OF DEATHS
0
10
20
30
WEEKS ENDING
JAN 5 1918
12
19
26
FEB 2
9
16
23
MARCH 2
9
16
23
30
APRIL 6
10
20
27
MAY 4
11
18
25
JUNE 1
8
15
22
29
JULY 6
13
20
27
AUGUST 3
10
17
24
31
SEPT 7
14
21
28
OCTOBER 5
12
19
26
NOV. 2
9
16
23
30
DEC. 7
14
21
28
JAN. 4 1919
11
18
25
FEB. 1
8
15
22
MARCH 1
8
15
22
29
APRIL 5
12
19
26

Thirty-four died in the nine weeks June 15th–August 17th, 190 died in the fifteen weeks October 19th–February 1st, 1919, and 106 in the eleven weeks February 8th to April 26th, 1919.

332 deaths occurred in 299 houses.
Single ,, ,, in 275 ,,
Two ,, ,, in each of 20 houses.
Three ,, ,, ,, 2 ,,
Four , ,, in one house, and
Seven , ,, ,,

The age at death and the secondary cause of death are given below :—

Secondary Causes of Death.	At all Ages.	0—1 Year.	1—2 Years.	2—5 Years.	5—15 Years.	15—25 Years.	25—45 Years.	45—65 Years	65 and over.
Influenza	26	3	5	..	6	1	4	6	1
Influenza and Pneumonia.. ..	237	3	7	31	43	32	65	43	13
,, Bronchitis	28	1	4	2	3	2	4	5	7
,, Heart Failure ..	14	..	..	1	..	1	1	6	5
,, Cerebral Hæmorrhage ..	1	..	..	..	..	..	..	..	1
,, Meningitis	12	1	2	4	3	1	..	1	..
,, Rheumatism ..	2	..	..	..	..	..	2	..	..
,, Convulsions ..	4	2	1	..	1	..	..	..	..
,, Toxœmia	3	..	..	..	..	..	3	..	..
,, Hyperpyrexia ..	2	..	..	..	..	1	1	..	..
,, Diarrhœa	1	..	..	..	..	..	..	..	1
,, Tuberculosis ..	1	..	..		1	..	..	..	..
,, Pycemia	1	..	..	..	..	..	1	..	..
Totals	332	10	19	38	57	38	81	61	28

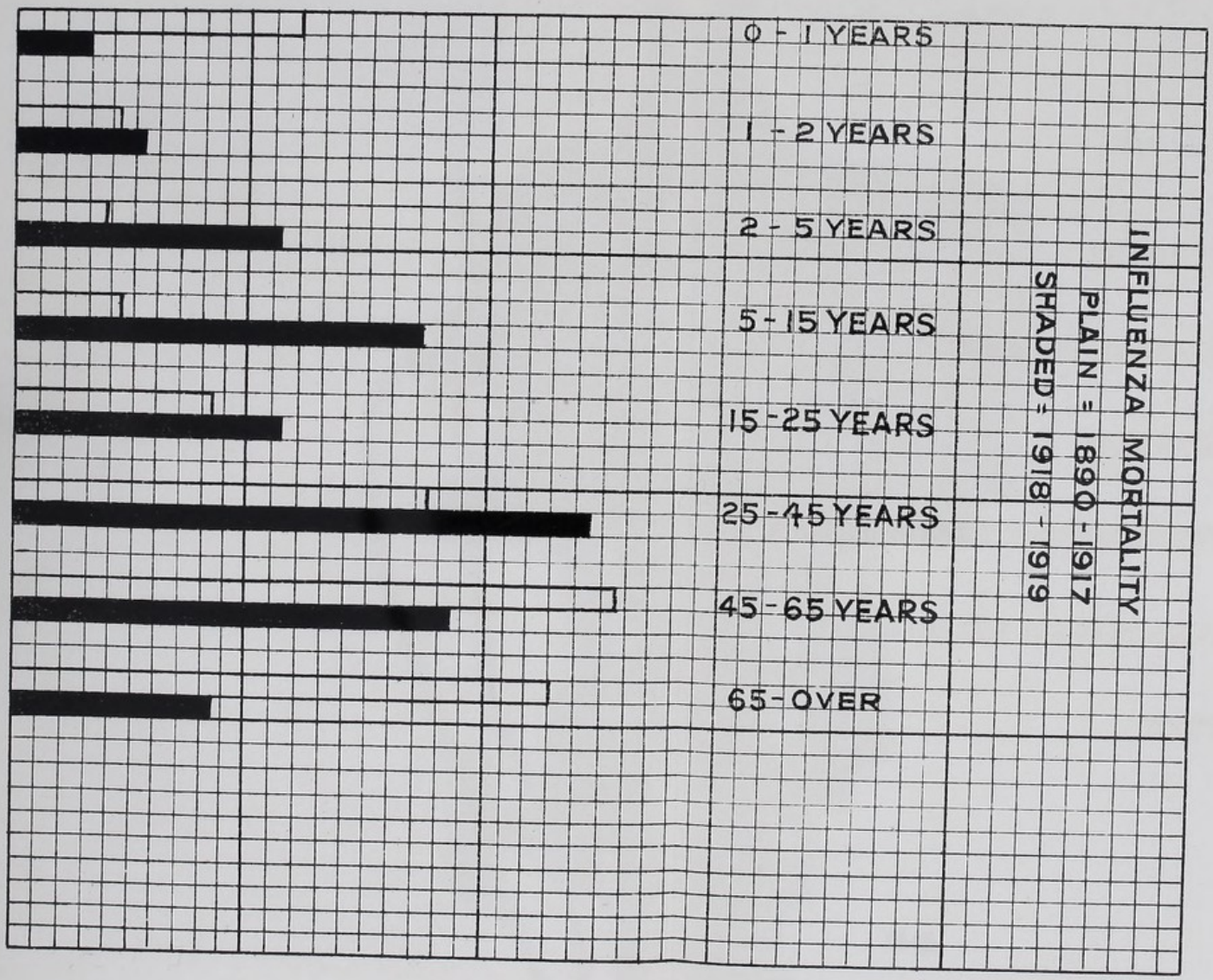
Ward Allocation of Nett Influenza Deaths, January, 1918—April, 1919.

Wards.	0—1 Year.	1—2 Years.	2—5 Years.	5—15 Years.	15—25 Years.	25—45 Years.	45—65 Years.	65 and over.	Total.	Death Rate per 1,000 born
North	1	2	4	5	7	13	8	4	44	6·6
South	4	2	6	10	5	9	10	4	50	6·5
East	1	..	3	5	4	6	4	3	26	5·9
West	..	3	2	10	5	12	9	6	47	6·1
South-East	3	9	22	22	10	31	20	9	126	7·8
South-West	1	3	1	5	7	10	10	2	39	7·5
Totals	10	19	38	57	38	81	61	28	332	7·4

INFLUENZA DEATHS.

	0–1 Year	1–2 Years	2–5 Years	5–15 Years	15–25 Years	25–45 Years	45–65 Years	65 and over	Total.
1890	..	..	..	..	..	..	..	..	..
1891	1	1	..	1	5	6	8	3	25
1892	1	..	..	1	1	4	9	..	16
1893	..	..	..	..	1	3	1	2	7
1894	..	..	..	..	..	1	3	1	5
1895	4	..	1	..	2	2	7	5	21
1896	..	..	..	1	..	..	3	1	5
1897	..	..	..	1	..	1	3	1	6
1898	1	..	..	..	1	..	4	3	9
1899	..	1	..	..	1	7	5	2	16
1900	1	1	..	2	1	3	3	4	15
1901	..	..	..	..	..	3	2	1	6
1902	..	..	..	..	..	1	3	3	7
1903	..	..	..	..	..	..	..	2	2
1904	1	..	..	4	6	7	1	..	19
1905	..	..	..	..	..	3	1	7	11
1906	..	..	1	..	1	..	2	2	6
1907	..	..	..	..	..	1	4	6	11
1908	..	..	..	1	..	6	2	7	16
1909	..	..	1	..	1	2	2	4	10
1910	2	1	1	..	..	2	3	4	13
1911	7	..	..	..	4	3	4	1	19
1912	..	2	..	1	3	2	6	5	19
1913	6	4	2	..	4	4	6	4	30
1914	12	2	2	3	2	2	4	7	34
1915	7	4	4	1	1	3	6	9	35
1916	2	1	1	2	..	4	6	5	21
1917	4	1	2	1	..	..	3	3	14
Total ..	49	18	15	19	34	70	101	92	398
1918 **1919**	**10**	**19**	**38**	**57**	**38**	**81**	**61**	**28**	**332**

The comparative mortality at the different age groups expressed as a percentage of the whole during the period 1890–1917 and the 1918–1919 epidemic (shaded) is shown in the following diagram :—


INFLUENZA MORTALITY
PLAIN = 1890 - 1917
SHADED = 1918 - 1919
0 - 1 YEARS
1 - 2 YEARS
2 - 5 YEARS
5 - 15 YEARS
15 - 25 YEARS
25 - 45 YEARS
45 - 65 YEARS
65 - OVER

From the tables it appears that the risk of death gradually increases from infancy to early adult life. There is some increase in mortality during School life, which is not felt in the succeeding ten years. High mortality is experienced throughout the whole of the working period, and declines in old age. There is not much difference as to sex distinction. More male than female infants succumbed, due perhaps to their less viability. Between the ages 15 and 45 there is a large excess of female deaths, due to the close association with the sick of the young and middle-aged married women.

There are slight variations in the mortality in the different Wards of the Borough, the South-East and the South-West Wards experiencing the heaviest mortality.

Social conditions certainly exercised little influence over the incidence of the disease, although doubtless the mortality would be affected by the amount of the medical and nursing service available.

OVERCROWDING.

The association between overcrowding and excessive mortality so apparent in the Measles epidemic was evident.

The table following deals with the population of infected houses. Those figures above the heavy line relate to the number of families and persons composing them who were living in conditions of overcrowding that is to say with more than two persons to a room.

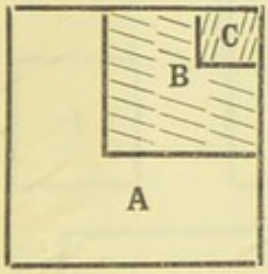
It appears that 30 families, consisting of 268 persons, were so overcrowded : the proportion per cent. of population equals 17·4 as against 10% at the Census. I will mention two extreme cases. A family of ten persons occupied a two-roomed house. A family of thirteen persons occupying a four-roomed house in which seven deaths occurred in less than a fortnight from Influenza.

No. of Rooms in Infected Houses.	Number of Persons Occupying Infected House.													Total.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	Houses.	Occupants.
	Number of Families.														
2	1	3	2	1	2	2	1	...	...	1	...	...	..	13	56
3	...	2	2	1	2	3	5	2	1	1	...	...	...	19	112
4	1	14	32	27	30	24	17	10	7	4	1	...	1	168	853
5	...	4	8	15	11	6	6	6	2	1	2	...	...	61	323
6	...	2	5	3	4	5	4	1	...	1	...	...	...	25	127
7 and over	...	...	2	3	3	3	1	...	1	...	...	...	...	13	67
Families	2	25	51	50	52	43	34	19	11	8	3	..	1	299	...
Persons	2	50	153	200	260	250	238	152	99	80	33	...	13		1538

PREVIOUS ATTACKS.

In the majority of Infectious Diseases one attack protects the sufferer from further attacks. In Small Pox this protection is absolute. Chicken Pox, Scarlet Fever, Whooping Cough, and the Typhoid group afford nearly absolute immunity, in Measles the protection is partial, while in Influenza and Pneumonia the first attack seems to predispose to subsequent infection.

In the Summer epidemic it was found that 33 primary deaths occurred, among whom four had had the disease previously. The remaining population at risk was 150 persons (of whom four had had the disease previously), and 36 or 24% contracted the disease, of whom one died. In the diagram Square A = the total population at risk, 186 ; Square B = the number who contracted Influenza, 72 ; and Square C, the number who had suffered previous attacks.

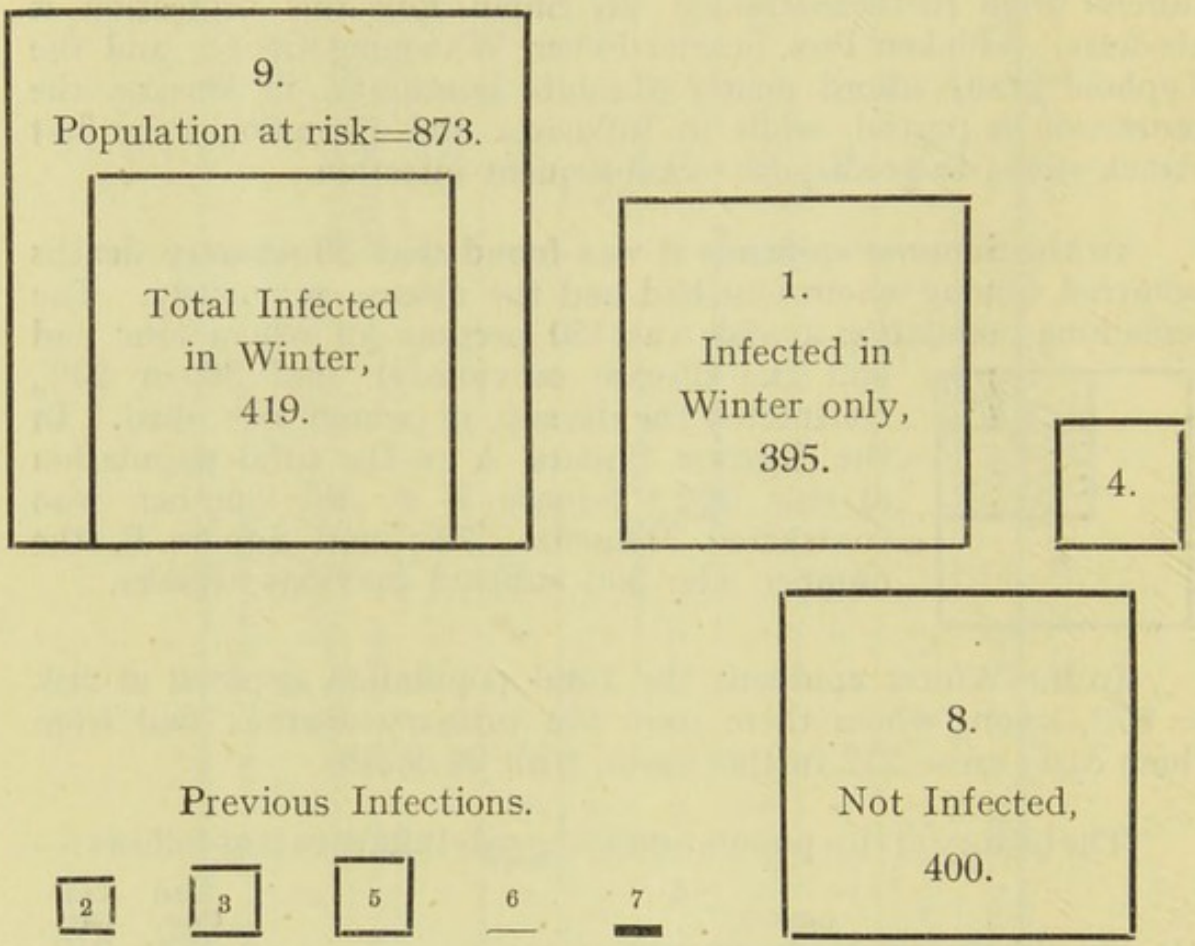


In the Winter epidemic the total population exposed at risk = 873, among whom there were 164 primary deaths ; and from these cases arose 212 further cases, with 26 deaths.

The history of this population as regards Influenza is as follows :—

	Infected.	Fatal Cases.	Contacts.
1.	In the Winter epidemic only	183	212
2.	In the Winter and in the Summer epidemics ..	2	7
3.	In the Winter and before the Summer epidemic ..	5	8
4.	In the Summer epidemic only	..	43
5.	Before the Summer epidemic only	..	10
6.	Before and in the Summer epidemic	..	1
7.	Before, in the Summer and in the Winter epidemics	..	2
8.	Not infected	..	400
9.	Total	190	683

Diagrammatic Representations of Winter Epidemic Infections and Previous Infections.

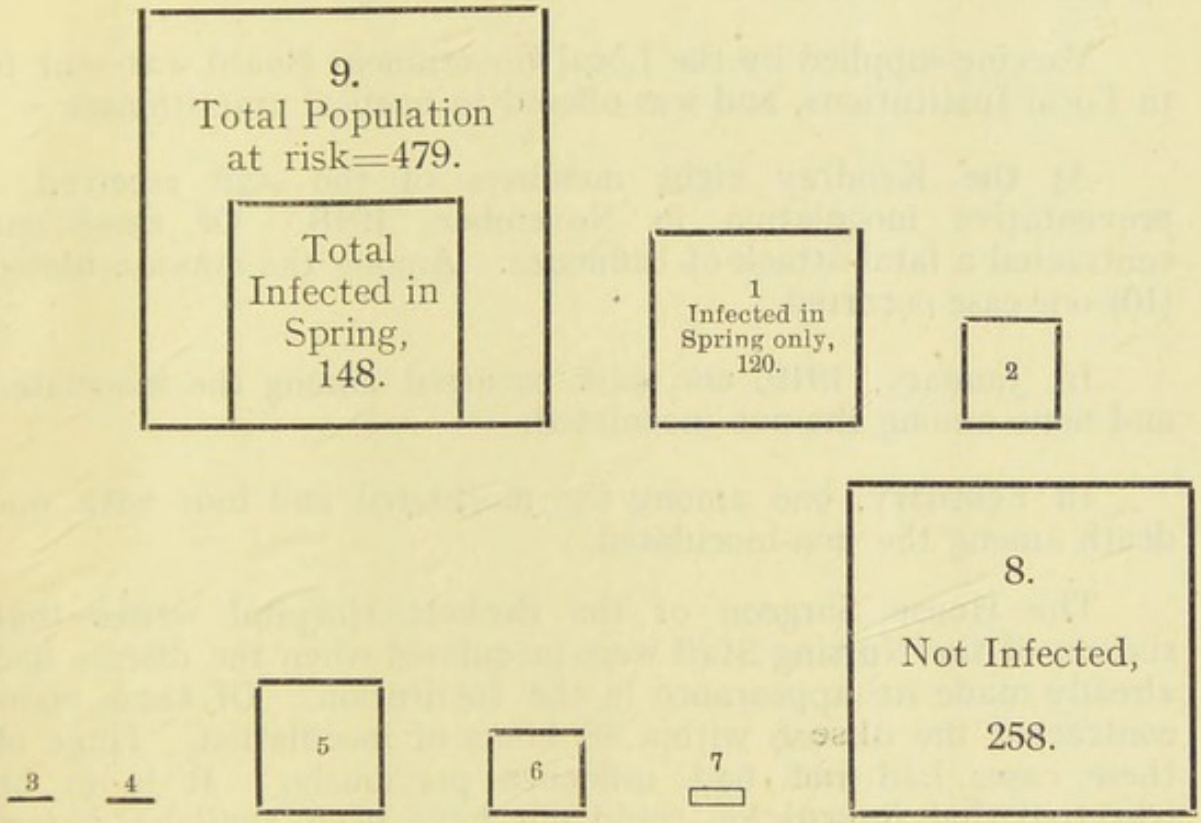


In the Spring (1919) epidemic there were 95 primary deaths among a total population at risk of 479. Among these arose 40 further cases, with 11 deaths.

The history of this population as regards Influenza is as follows:—

	Infected.	Fatal Cases.	Contacts.
1.	In the Spring epidemic only	80	40
2.	In the Spring and in the Winter epidemics ..	25	2
3.	In the Summer and in the Spring epidemics ..	1	..
4.	In the Summer and in the Winter epidemics ..	..	1
5.	In the Winter epidemic only	..	45
6.	In the Summer epidemic only	..	24
7.	Before the Summer epidemic only	..	3
8.	Not infected	..	258
9.	Total	106	373

Diagrammatic Representations of Spring Infections and Previous Infections.



Treatment.

Twenty-six cases were removed to the Kendray Fever Hospital, of whom six died.

Forty-nine cases, with five deaths, were treated by the District Nurses.

Twenty-nine cases, with ten deaths, were treated by a Nurse employed directly by the Committee.

Home helps were provided in three instances for a period of one week each. The utmost difficulty was experienced in getting suitable women to come forward for the work, the reason being the great amount of illness and the demands made by their sick relatives. Thus 42 fatal cases were nursed by neighbours.

Pneumonia Jackets and Nursing requisites were supplied for the use of the District and the Committee's Nurses.

An unknown number of cases, of whom seven died, were attended by private nurses.

Eight persons died in the Workhouse Infirmary, one person died in the Beckett Hospital, and the remainder (253) were nursed by parents and relatives.

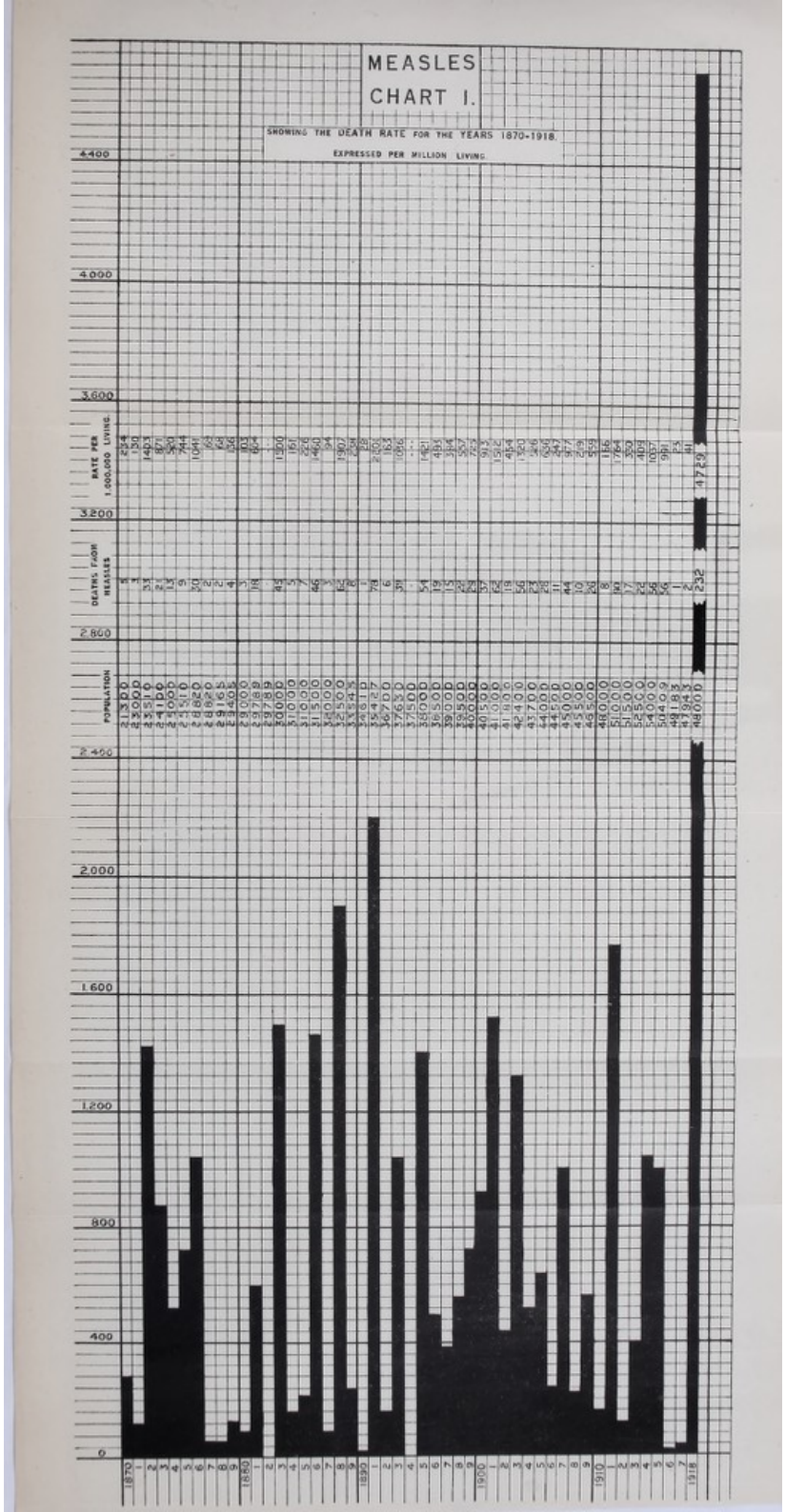
Vaccine supplied by the Local Government Board was sent to to Local Institutions, and was offered to medical practitioners.

At the Kendray eight members of the staff received a preventative inoculation in November, 1918. Of these one contracted a fatal attack of Influenza. Among the non-inoculated (10) one case occurred.

In January, 1919, one case occurred among the inoculated and none among the non-inoculated.

In February, one among the inoculated and four with one death among the non-inoculated.

The House Surgeon of the Beckett Hospital writes that sixteen of the Nursing Staff were inoculated when the disease had already made its appearance in the Institution. Of these eight contracted the disease within 48 hours of inoculation. Three of these cases had not had influenza previously. It is to be regretted that inoculation could not have been available before the disease actually made its appearance in the hospital.


MEASLES
CHART I.
SHOWING THE DEATH RATE FOR THE YEARS 1870-1918.
EXPRESSED PER MILLION LIVING.
DEATHS FROM MEASLES
RATE PER 1,000,000 LIVING.
POPULATION
4400
4000
3600
3200
2800
2400
2000
1600
1200
800
400
0
1870
1880
1890
1900
1910
1918

MEASLES.

The following Report on Measles was submitted to the Health Committee in January, 1919.

In the first half of the year Barnsley was visited by an epidemic of Measles, which, for the extent of its incidence and fatality, is without parallel in the history of the Borough.

There have been many previous epidemics. In fact, from the figures available, it appears that prior to January, 1916, the longest periods during which no deaths occurred from Measles were the years 1882 and 1890, and the nine months, September, 1905–May, 1906. Between January, 1916, and January, 1918, with the exception of two deaths in July, 1917, Measles as a disease causing mortality was absent.

The periods between epidemics have varied in length from two to four years.

This periodicity is shewn in Chart I, where the deaths are diagrammatically presented. The extraordinary violence of the last epidemic is well illustrated.

There seems to be no sharply defined period of the year when Measles has been especially prevalent (*vide* Table A). The five months, July-November, are those in which the mortality in the years 1903–1918 has been the lowest.

In the years 1903-1917, 22 per cent. of the deaths have been those of infants 41 per cent., those of children aged 1, 30·3 per cent. those of children aged 2–5 years, 5·4 per cent. those of children aged 5–15 years. In this last epidemic the mortality has been shifted on to the older age groups, the corresponding figures being 10·3, 31·4, 42·2, and 16·3 per cent. respectively.

The seasonal prevalence of Measles is shewn below for the years 1903 to 1918.

TABLE A.—DEATHS FROM MEASLES.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1903	..	..	..	..	1	..	..	1	..	5	18	31	56
1904	15	3	2	1	..	..	1	..	..	1	..	..	23
1905	1	1	8	3	9	3	2	1	..	..	..	..	28
1906	..	..	..	..	..	1	1	1	..	..	1	7	11
1907	9	10	11	2	3	6	1	..	..	..	1	1	44
1908	1	..	..	..	..	..	3	1	2	1	..	2	10
1909	..	1	..	..	4	10	7	3	1	..	..	..	26
1910	4	..	..	..	1	..	1	..	1	1	..	..	8
1911	2	6	27	30	15	6	1	2	1	..	..	..	90
1912	..	..	..	..	1	1	2	5	5	5	1	2	*22
1913	4	..	..	..	..	..	..	..	2	4	4	8	22
1914	23	11	7	6	3	4	1	1	..	..	..	..	56
1915	1	4	1	..	..	7	7	9	6	6	11	6	58
1916	1	..	..	..	..	..	..	..	..	..	..	..	1
1917	..	..	..	..	..	..	2	..	..	..	..	..	2
1918	**10**	**26**	**60**	**39**	**51**	**34**	**6**	**4**	**2**	..	..	..	**232**
Total ..	71	62	116	81	88	72	35	28	20	23	36	57	689

TABLE B.—AGE AT DEATH FROM MEASLES, 1903—1918.

	0—1 wk.	1—2 wks.	2—3 wks.	3—4 wks.	1—3 mths	3—6 mths	6—9 mths	9—12 mths	Total under 1 year.	1—2 years	2—5 years	5—15 years	Total.
1903	}								12	21	23	..	56
1904	}	Figures not available							1	10	12	..	23
1905	}								8	12	8	..	28
1906	}								2	7	1	1	11
1907	..	..	..	..	..	..	6	1	7	21	15	1	44
1908	..	..	..	..	..	1	..	4	5	3	1	1	10
1909	..	..	..	..	..	1	2	3	6	11	7	2	26
1910	..	..	..	..	..	..	2	1	3	4	1	..	8
1911	..	..	..	..	..	2	7	11	20	38	23	9	90
1912	..	..	..	..	..	..	1	2	3	8	5	1	*17
1913	..	..	..	..	..	..	1	8	9	5	7	1	22
1914	..	..	..	..	..	.	3	8	11	25	17	3	56
1915	..	..	..	1	..	..	6	9	16	22	16	4	58
1916	..	..	..	..	..	..	..	..	..	1	..	..	1
1917	..	..	..	..	..	..	..	..	..	1	1	..	2
1918	..	..	..	..	**2**	**3**	**7**	**12**	**24**	**72**	**98**	**38**	**232**
Total ..	..	..	..	..	..	..	..	..	127	261	235	61	684

* The Deaths from Measles in the year 1912 equalled 17 in one Table and 22 in another Table of the same report.

PROGRESS OF THE EPIDEMIC.

In my report for 1917 I referred to the outbreak at Park Road Schools, which occurred at the end of December. The first case was notified on December 4th, and up to the end of the year nine further cases had been notified. The number of cases and deaths from the disease continued to rise rapidly until a maximum was reached in the second week of March, and declined more rapidly until the fourth week of March. A period of five weeks with an average number of about 100 cases then occurred, to be followed by a second phase, with a maximum occurring in the third week of May. The first phase corresponded with the comparative localisation of the epidemic to a portion of the South-East and the East Wards. The second and longer phase to the spread of the disease, first to the West and North Wards, and later, towards the end of April, to the South and South-West Wards. After the end of June the number of cases notified rapidly subsided, no further cases or deaths occurring after September.

As in previous epidemics the general public, with a few exceptions, regarded the disease as of little moment. Tender infants could be seen in the homes, in the streets, and even in the Schools, with the rash fully developed. The news that a child had Measles was not often accepted by the neighbours until a personal inspection of the sufferer had satisfied them of its truth

Further, the natural kindliness of the people led them to volunteer their assistance in nursing and helping with the house work. The difficulty in controlling the movements of the remaining children, great enough in ordinary times, is multiplied four-fold where the mother's whole energies are absorbed in day and night nursing of a sick child in addition to the ordinary house-work. These children, some of them incubating the disease, run in and out of their playmates' homes without let or hindrance.

The average case occurs in a four-roomed dwelling, one of a row with a common back-yard. There is a kitchen and a scullery and two bedrooms. Five persons occupy the dwelling. Father is on "nights," and the eldest lad on "days." As there is neither room nor convenience upstairs, and as the preparation of two sets of meals require the mother's continual attention, the child is nursed on the sofa or in a cot in the living-room, with the remainder of the family coming and going as their needs dictate. Baking and cooking must be done, and washing must be dried. Every time the door is opened the hot, moist, close atmosphere is abruptly exchanged for the drier and colder air outside. Under such circumstances the spread of infection and the occurrence of severe complications, particularly inflammation of the lungs, is unavoidable.

NOTIFICATION.

It will be seen from Table C. that approximately 64 per cent. of the cases were reported by medical practitioners, 21 per cent. by the staff, 4 per cent. by the parents, and 10 per cent. by the Head Teachers of the Schools.

On the whole notification was made promptly, particularly in the case of the Schools, but in the case of medical practitioners notification was delayed in a good proportion of cases, sometimes on account of forgetfulness (as instanced by the fact that 71 cases died un-notified and were then reported by the Health Visitor), but generally on account of the fact that they were not called in until the disease had developed some alarming complications.

Notification by parents was thoroughly disappointing. Public attention was called to the legal obligation to notify, but without effect. Fully half the cases notified by the Health Visitors under the first sub-heading in the Table were secondary cases which had occurred between visits by the official, and were not notified by the parents.

Judged by the mortality rate of the known cases it would be a fair estimate to add to the 2,692 cases notified between 500 and 700 other cases which escaped notification.

TABLE C.—NOTIFICATION OF CASES OF MEASLES.

	North Ward.	South Ward.	East Ward.	West Ward.	South-East Ward.	South-West Ward.	Total.
Medical Practitioners ..	184	271	162	319	514	280	1730
Health Visitors—							
(*a*) In the course of routine work	59	89	53	71	170	62	504
(*b*) Enquiries into death from Measles not previously notified ..	6	7	9	7	37	5	71
Parents	8	50	..	8	9	28	103
Schools—							
Agnes Road	..	2	..	..	16	..	18
Baker Street	..	..	..	..	8	..	8
Central	..	..	..	..	3	..	3
Doncaster Road	..	..	11	..	33	..	44
Eldon Street	8	..	1	..	1	..	10
Grove Street	1	..	20	..	5	..	26
Holyrood	.	..	..	..	1	..	1
Keir Street	..	..	..	2	..	..	2
Old Town	17	..	..	38	..	..	55
Park Road	..	.	..	..	43	..	43
Pitt Street	..	6	..	..	..	2	8
Racecommon Road ..	..	8	.	1	5	6	20
St. Edward's	..	..	..	..	..	6	6
St. George's	..	12	..	..	..	1	13
St. John's	..	1	..	..	15	..	16
St. Mary's	1	..	1	7	..	2	11
Totals ..	284	446	257	453	860	392	2692

TABLE D.—INCIDENCE.

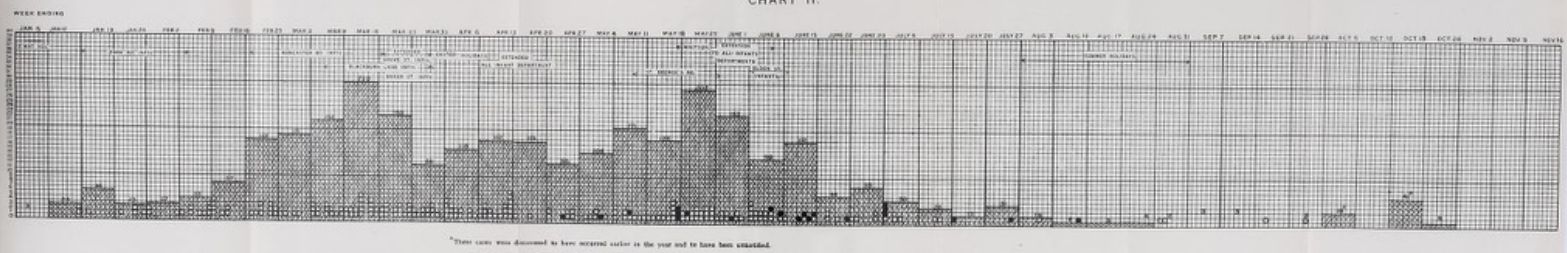
	North Ward.	South Ward.	East Ward.	West Ward.	South-East Ward.	South-West Ward.	Totals.
Approximate Civil Population (1917)..	6713	7756	4426	7558	16273	5217	47943
Number of Cases	284	446	257	453	860	392	2692
Incidence per 1,000 living ..	42·3	57·5	58·0	59·9	52·8	75·1	56·1
Number of Deaths	29	35	24	25	87	32	232
Rate per 1,000 living ..	4·31	4·51	5·4	3·30	5·34	6·25	4·83
Mortality per cent. of those Infected	10·2	7·8	9·3	5·5	10·1	8·1	8·61

The above table shews that the whole Borough was more or less equally affected, *i.e.*, 56·1 cases per 1,000 living. The South-West Ward shewed an higher, and the North Ward a lower, incidence rate than the average. The two periods of maximum prevalence are shewn in Chart II.

MEASLES

AVERAGE DAILY NOTIFICATION PER WEEK AND NOTT DEATHS.

CHART II.



*There cases were discovered to have occurred earlier in the year and to have been **omitted.**

The total number of cases notified, *viz.*, 2,794, is higher by **102 than the actual number of cases owing to the fact that some cases were notified more than once.** The figures above the average line represent the total weekly notifications. The deaths are represented by circles; those of **Borough residents who died in the Kingsley Fever Hospital by dots.**

Two-thirds of the houses were infected by single cases; in the remaining one-third further cases arose.

In 45 per cent. of the cases no secondary cases followed (*vide* Table E below).

TABLE E.—SHEWING NUMBER OF INFECTED HOUSES AND CASES ARISING THEREIN.

Number of Cases per House.	North Ward.	South Ward.	East Ward.	West Ward.	South-East Ward.	South-West Ward.	TOTALS.	
							Houses Infected.	Cases.
1	126	182	106	234	432	135	1215	1215
2	50	73	41	69	134	68	435	870
3	15	26	12	23	45	24	145	435
4	2	10	3	3	5	7	30	120
5	1	..	3	..	1	3	8	40
6	..	..	1	..	..	1	2	12
	194	291	166	329	617	238	1835	2692

AGE AND SEX.

Table F shews that both sexes were equally affected. A preponderance of females at the higher age groups being due to their close association with the sick.

The number of cases steadily rises up to the fourth year, and then declines. From the ninth year onward the number of cases in any one year is very small. The extreme range of age was from 14 days to 35 years.

Nearly 60 per cent. of the cases were under school age, and less than 1 per cent. over school age.

Seventy-six per cent of those children under school age who were exposed to infection contracted the disease, whereas the proportion in the case of children of school age was 38 per cent.

TABLE F.—AGE GROUPING OF CASES.

WARDS.		0—3 months.	3—6 months.	6—9 months.	9—12 months.	1 year.	2 years.	3 years.	4 years.	5 years.	6 years.	7 years.	8 years.	9 years.	10 years.	11 years.	12—15 years.	15—36 years.	TOTAL. M.	TOTAL. F.
North	M	..	2	1	1	12	21	21	18	19	14	6	8	5	3	..	..	..	131	153
	F	..	3	2	2	15	19	20	26	26	15	6	9	3	3	..	2	2		
South	M	1	1	4	9	18	30	31	45	26	25	15	7	..	1	1	1	1	216	230
	F	..	2	4	4	16	32	37	46	30	31	15	6	..	3	..	2	2		
East	M	..	1	4	1	18	19	18	24	21	18	5	3	3	1	1	..	2	139	118
	F	..	1	2	3	12	15	24	11	21	12	6	4	2	..	2	2	1		
West	K	1	..	5	5	13	33	31	40	42	25	18	6	2	2	..	1	3	227	226
	F	4	2	3	4	22	26	23	38	31	36	21	8	2	1	1	2	2		
South-East	M	2	2	5	9	45	60	64	62	74	54	17	8	3	2	1	1	1	410	450
	F	2	5	6	17	69	63	61	63	59	52	22	13	6	3	..	3	6		
South-West	M	1	..	3	3	20	27	23	36	24	18	14	8	..	2	1	1	2	183	209
	F	..	1	1	3	20	28	32	34	32	23	27	5	2	..	1	..	..		
TOTAL		5	6	22	28	126	190	188	225	206	154	75	40	13	11	4	4	9	1306	1386
		6	14	18	33	154	183	197	218	199	169	97	45	15	10	4	11	13		
		11	**20**	**40**	**61**	**280**	**373**	**385**	**443**	**405**	**323**	**172**	**85**	**28**	**21**	**8**	**15**	**22**	**2692**	

SOCIAL CONDITIONS.

Table G, from which Tables Ga and Gb have been abstracted, shews that the infection mainly attacked the four-roomed house, that is to say, that although four-roomed houses form 41 per cent of the total houses in the borough, yet they contributed 70 per cent. of the infected houses, cases, and population exposed to infection. The three-roomed and five and six and seven-roomed houses enjoyed a corresponding comparative immunity. The reasons for this are obvious. The four-roomed house is the home of the young married couple, and further, four-roomed houses aggregated into closely packed masses form the bulk of the insanitary areas in the town.

TABLE G.

No. of Rooms in Infected Houses.	Number of Persons Occupying Infected House.												Total.	
	1	2	3	4	5	6	7	8	9	10	11	12		
	Number of Families.												Houses.	Occupants.
2	..	5	23	29	21	15	6	1	..	1	..	..	101	450
3	..	2	27	27	29	26	24	13	2	3	1	..	154	825
4	..	58	239	301	271	185	113	63	40	13	6	1	1290	6365
5	..	4	28	27	21	12	6	6	3	3	4	..	114	568
6	..	4	36	22	22	14	5	2	3	1	..	1	110	498
7 and over	..	4	22	12	15	6	2	4	..	1	..	..	66	289
Families	..	77	375	418	379	258	156	89	48	22	11	2	1835	..
Persons	..	154	1125	1672	1895	1548	1092	712	432	220	121	24	..	8995

The above Table should be read in the following manner :— In two-roomed houses there were five families of two persons each, 23 families of three persons each, 29 families of four persons each, and so on. In three-roomed houses there were two families of two persons each, 27 of three persons each, and so on.

The figures above the heavy line give the number of families living in conditions of overcrowding, *i.e.*, more than two persons per room.

TABLE Ga.

No. of Rooms per Infected House.	No. of Houses.	Proportion per Cent. of				
		Infected Houses.	Total Houses 1911 Census.	Population Living in Infected Houses.	Total Population 1911 Census.	Cases in Infected Houses.
1 ..	..	..	·4	..	0·13	..
2 ..	101	5·5	4·91	5·0	3·20	4·6
3 ..	154	8·39	13·31	9·1	12·75	8·4
4 ..	1290	70·3	40·99	70·8	40·15	71·8
5 ..	114	6·21	25·99	6·3	28·13	5·9
6 ..	110	6·00	6·56	5·5	7·06	5·6
7 & over	66	3·59	8·1	3·2	8·56	3·7
	1835	100·0	100·0	100·0	100·0	100·0

TABLE Gb.

No. of Rooms per House.	No. of Houses.	Number of Children under School Age.	Number of Children of School Age.	Parents, older Children and Lodgers.	Total Persons.	Total Cases.	Average No. of Persons per Infected House.
2 ..	101	119	132	199	450	124	4·4
3 ..	154	233	247	345	825	226	5·3
4 ..	1290	1506	1979	2880	6365	1933	4·9
5 ..	114	114	172	282	568	159	4·9
6 ..	110	89	150	259	498	151	4·5
7 and over	66	52	78	159	289	99	4·3
Totals	1835	2113	2758	4124	8995	2692	4·9

Overcrowded families, that is to say, living with more than two persons in one room, are shewn in Table G. 151 families, consisting of 1,198 persons, were overcrowded. The proportion

per cent. to total population in infected houses equals 13·3. At the 1911 census this figure was 10 per cent. If the percentage amount of overcrowding had not increased since the census there would have been 300 fewer persons living in infected houses.

If the infected houses represent a fair sample of the housing conditions in the Borough, the present population would equal 4·9 (Table Gb.) × 11,263 (the number of houses on the rates' books, 1918) = 55,138, and the total number of persons living in overcrowded houses would equal 7,333, as against 5,000 at the census.

It should be mentioned that our enquiries shewed that every seventh house had a lodger.

In the whole series of cases there were 151 overcrowded houses. In 68 of these, a little less than half of the total, one or more deaths occurred. The mortality over the whole series of cases equals 8·6 per cent., whereas the mortality in the smaller and more congested dwellings is much in excess of this figure. The mortality varies inversely with the size of the house and directly with the amount of the overcrowding. These points are shewn in the following tabular statement :—

Rooms per House.	Total Cases.	Total Deaths.	Mortality per cent.	Total Houses.	Total Houses Overcrowded.	Percentage
2	124	19	15·3	101	44	43·5
3	226	33	14·6	154	43	27·9
4	1933	165	8·5	1290	60	4·7
5	159	14	8·8	114	4	3·5
6	151	1	·6	110	Nil.	
7 and over	99	..	Nil.	66	Nil.	
Total ..	2692	232	8·6	1835	151	8·2

DEATHS FROM MEASLES.

There were 214 deaths in the Borough. Of these three belonged to other districts. In addition to these there were 21 deaths of Borough residents, which occurred at the Kendray Fever Hospital, Ardsley U.D.

Their age grouping, and Ward allocation is set out below.

TABLE H.

Wards.	Deaths at all Ages.	Und'r One M'th.	1-3 Mths	3-6 Mths	6-9 Mths	9-12 Mths	Total under 1 Year	Years. 1	2	3	4	5	6	7	8	9	10
N	29	..	..	..	2	1	3	8	5	7	1	3	1	..	1	..	..
S	35	..	..	1	2	2	5	13	5	6	2	1	3	..	..	..	..
E	24	..	..	1	..	4	5	3	7	4	3	..	2	..	..	..	..
W	25	..	1	..	1	..	2	6	4	2	3	5	3	..	..	..	..
SE	87	..	1	1	2	3	7	31	13	14	7	7	5	2	..	..	1
SW	32	..	..	..	..	2	2	11	5	5	5	..	4	..	..	..	..
TOTALS ..	232	..	2	3	7	12	24	72	39	38	21	16	18	2	1	..	1
Cases ..	2692	..	11	20	40	61	132	280	373	385	443	405	323	172	85	28	21
Mortality per cent. of those infected	8·6	..	18·1	15·0	17·5	19·6	18·1	25·7	10·4	9·8	4·7	3·9	5·5	1·1	..	..	..

In the above it may be seen that while the number of cases arising steadily increases at each year of age up to four, and as gradually declines to a negligable quantity after seven years, yet the highest number of deaths and the highest percentage case mortality are experienced in the first two years of life. A glance at this Table is sufficient to point out the extreme importance of postponing or safeguarding a child from Measles as long as possible.

The Terminal or Secondary causes of death were as follows :—

TABLE I.

Secondary Cause of Death.	At all Ages.	Months.					Total under 1 year.	Years.									
		0—1	1—3	3—6	6—9	9–12		1	2	3	4	5	6	7	8	9	10
Measles	15	..	1	..	2	1	4	4	1	3	3	..	..	..	..	..	..
Measles and Hyperpyrexia	4	..	..	..	..	1	1	..	1	1	1	..	..	..	..	..	..
,, Convulsions	6	..	..	..	..	1	1	2	2	1	..	..	..	..	..	..	..
,, Toxæmia	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
,, Membranous Croup	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
,, Laryngeal Obstruction	2	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..
,, Diphtheria	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
,, Bronchitis	12	..	..	..	..	2	2	3	2	2	1	..	2	..	..	..	..
,, Broncho Pneumonia	151	..	1	3	3	7	14	48	28	23	11	11	13	1	1	..	1
,, Pneumonia	19	..	..	..	1	..	1	7	3	2	3	1	1	1	..	..	..
,, Marasmus	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..
,, Debility	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
,, Dentition	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
,, Meningitis	8	..	..	..	..	..	..	2	..	3	..	2	1	..	..	..	..
,, Cerebral Abscess	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
,, Pyæmia	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
,, Cancrum Oris	2	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..
,, Gastro Enteritis	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
,, Peritonitis	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
,, Parotid Abscess	2	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..
,, Acute Miliary Tuberculosis.	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Totals	232	..	2	3	7	12	24	72	39	38	21	16	18	2	1	..	1

In 78 per cent. Pulmonary complications were the cause of death. The violence of the original infection accounted for 11 per cent., and secondary septic infective processes for 7 per cent. Diphtheritic infection played a very small part, due to the unusual absence of the disease from the neighbourhood.

SCHOOLS AND MEASLES.

For some considerable time (January and February) the epidemic was confined to infants attending the Park Road Infants' School. Then in quick succession (March) the Doncaster Road, Blackburn Lane, Baker Street, and Grove Street Infants' Departments were affected. This period corresponded with the first period of the maximum prevalence as shewn in Chart II. In May and the early part of June the St. George's Road, Eldon Street, Racecommon Road, St. Mary's, and St. Edward's Infants' Departments were affected. I was kept informed by the Head Teachers at frequent intervals as to the condition of the attendance, returns being furnished which shewed the numbers, at each age of those present, of those absent on account of Measles and of those present who were protected by a previous attack. School closure was decided upon on the above data. The dates of closure are set out below.

SCHOOL CLOSURE.

Park Road Infants—January 11th to February 4th.

Doncaster Road Infants—February 18th to March 15th. Extended to the beginning of the Easter Holidays, March 27th.

Blackburn Lane Infants—March 5th to the beginning of the Easter Holidays, March 27th.

Baker Street Infants—March 18th to the beginning of the Easter Holidays, March 27th.

Grove Street Infants—March 20th to the beginning of the Easter Holidays, March 27th.

St. George's Infants—May 8th to May 31st.

Eldon Street Infants—May 27th to June 7th.

Easter Holidays extended for all Infant Departments from April 8th to April 22nd.

Whitsuntide Holidays extended for all Infants' Schools from May 26th to June 2nd.

SCHOOLS ATTENDED BY CASES OF MEASLES.

		North Ward.	South Ward.	East Ward.	West Ward.	South-East Ward.	South-West Ward.	Total.
Under School Age		164	285	156	250	551	235	1641
Over School Age		3	3	3	7	10	..	26
Temporary Visitors		1	..	..	3	9	2	15
Agnes Road	Boys ...	..	2	..	..	1	..	3
,,	Girls ...	..	1	..	..	2	..	3
,,	Infants...	..	20	..	..	31	..	51
Baker Street	Infants...	..	5	1	..	22	..	28
Central	Mixed ...	..	..	..	1	..	..	1
Doncaster Road	Mixed ...	..	..	2	..	1	..	3
,,	Infants...	..	..	27	..	60	..	87
Eldon Street	Boys ...	9	..	1	..	..	..	10
,,	Girls ...	4	..	..	..	..	..	4
,	Infants...	38	..	7	..	..	..	45
Grove Street	Boys ...	..	..	10	..	1	..	11
,	Girls ...	..	..	6	..	2	..	8
,,	Infants...	..	..	34	..	9	..	43
Gawber		..	..	..	1	..	..	1
High School for Girls ...		6	..	3	..	..	..	9
Holyrood	Boys ...	..	..	..	..	1	..	1
,.	Girls ...	..	3	..	..	..	1	4
,,	Infants...	2	15	1	2	9	3	32
Keir Street	Mixed ...	3	..	..	13	..	..	16
Monk Bretton		1	..	..	..	..	..	1
Old Town	Infants...	31	..	..	91	..	..	122
Open-Air School		..	1	2	2	5	..	10
Park Road	Boys ...	..	..	..	..	11	..	11
,,	Girls ...	..	..	..	..	9	..	9
,,	Infants...	..	..	..	..	85	..	85
Pitt Street	Boys ...	..	10	..	..	1	6	17
Private Schools		1	5	..	4	8	1	19
Racecommon Rd.	Boys ...	..	2	..	..	1	7	10
,,	Girls ...	..	3	..	..	1	..	4
,,	Infants...	..	30	..	9	10	53	102
St. Edward's	Mixed ...	..	1	..	..	..	29	30
St. George's	Girls ...	..	3	..	2	1	6	12
,,	Infants...	..	54	..	12	..	35	101
St. John's	Boys ...	..	2	..	..	1	..	3
,,	Girls ...	..	..	..	..	..	..	..
,,	Infants...	..	..	..	..	17	..	17
St. Mary's	Boys ...	6	..	..	6	..	..	12
,,	Girls ...	4	..	..	4	..	4	12
,,	Infants...	11	1	4	46	1	10	73
Totals		284	446	257	453	860	392	2692

CHART III.

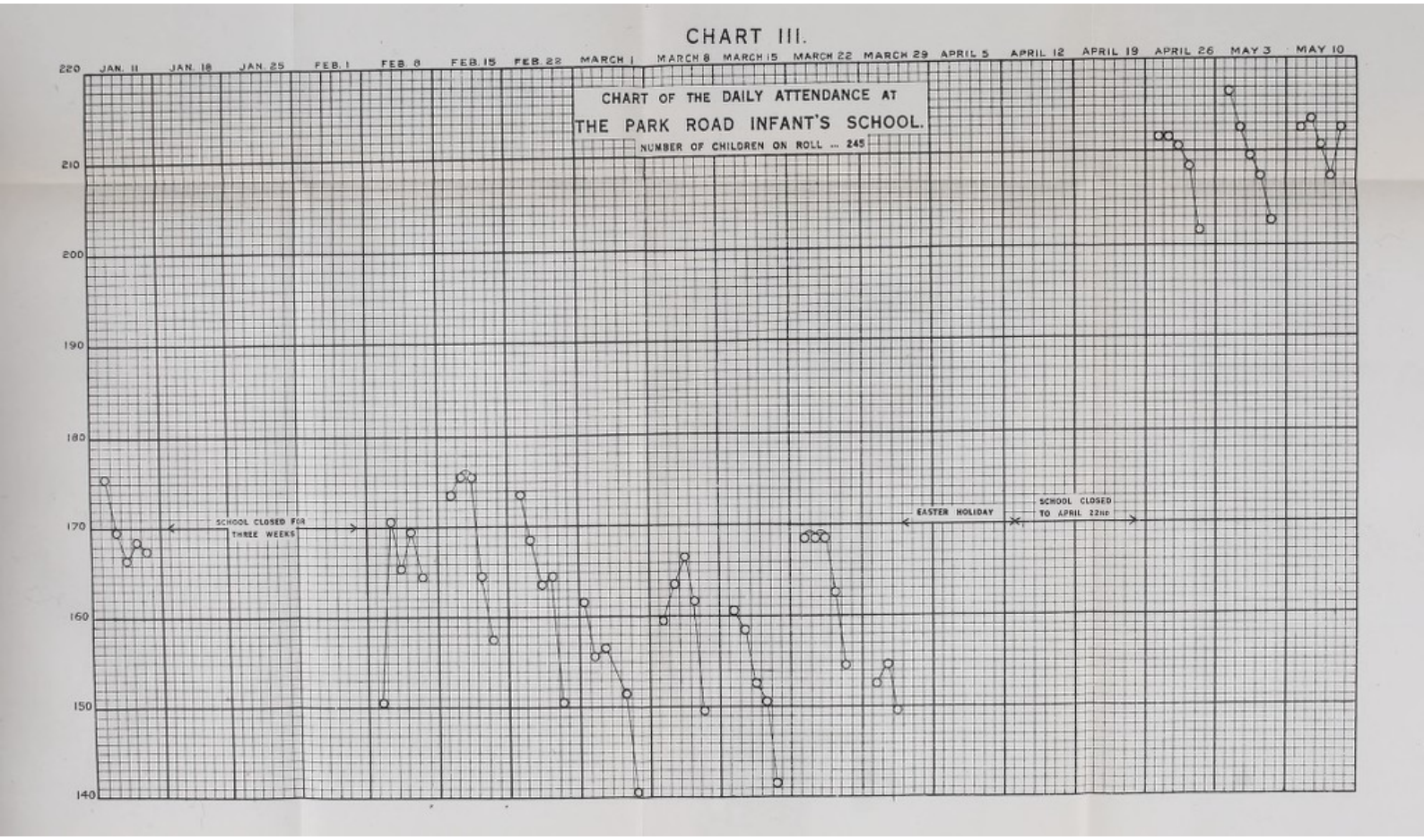


CHART OF THE DAILY ATTENDANCE AT
THE PARK ROAD INFANT'S SCHOOL.
NUMBER OF CHILDREN ON ROLL ... 245
JAN. 11
JAN. 18
JAN. 25
FEB. 1
FEB. 8
FEB. 15
FEB. 22
MARCH 1
MARCH 8
MARCH 15
MARCH 22
MARCH 29
APRIL 5
APRIL 12
APRIL 19
APRIL 26
MAY 3
MAY 10
220
210
200
190
180
170
160
150
140
SCHOOL CLOSED FOR THREE WEEKS
EASTER HOLIDAY
SCHOOL CLOSED TO APRIL 22nd

SUNDAY SCHOOLS AND MEASLES.

Through the courtesy of the Managing Authorities we were able to secure the simultaneous closure of the Infant Departments of those Sunday Schools which drew their children from the same neighbourhood as the Public Elementary Schools which had to be closed on account of Measles They were as follows:—

INFANT SUNDAY SCHOOLS CLOSED THROUGH MEASLES EPIDEMIC.

Sheffield Road Baptist Chapel—February 18th–April 22nd.
Ebenezer United Methodist Chapel—February 18th–April 22nd.
Buckley Street Primitive Methodist Chapel—February 18th–April 22nd.
Zion Chapel, Old Town—March 5th–April 22nd.
St. Peter's Church, Doncaster Road—February 18th–April 22nd.
St. Paul's Mission Church, Old Town—March 5th–April 22nd.

PLACES OF ENTERTAINMENT.

By means of representations made by the Health Committee to the Licensing Authority, all places of entertainment were closed to children under 14 years from February 21st to March 21st. Extended to April 4th.

PARK ROAD INFANTS—On Roll 241.

This School was infected on December 4th, 1917. Three weeks later six further cases occurred, and on January 7th, the date of re-assembling after the Christmas Holidays, it was found that 65 further cases had arisen. The School was then closed from January 11th to February 4th inclusive. Out of 241 children on the books there were 167 present, among whom only 65 were protected by a previous attack.

The three weeks closure had apparently no effect, as the attendance was not improved afterwards.

During the next seven weeks the attendance gradually declined from 72 per cent. to 58 per cent. After the Easter Holidays the School was re-opened on April 22nd, when the total attendance was found to be between 80 per cent. and 90 per cent., no further cases arising.

The Table below illustrates the fact that infection is most heavily borne by the younger children, and that infection of the older children is less in extent and more gradual in its progress.

Chart III. has two interesting features. Firstly, that School closure has no effect whatever once the disease has a good start. After the three weeks' closure in January the attendance gradually decreased until the Easter Holidays. The attendance on re-assembling was then normal. The second point is that the

attendance is much better at the beginning than at the end of each week—a reversal of the normal experience.

AVERAGE WEEKLY PERCENTAGE ATTENDANCE.

TABLE J.

	Aged 5	Aged 6	Aged 7	Total
Week ending Jan 11	47	80	80	70
School Closed Jan. 11–Feb. 4 ..	—	—	—	—
Week ending Feb. 8	49	72	77	67
Week ending Feb. 15	62	73	68	70
Week ending Feb. 22	63	71	63	67
Week ending March 1	51	68	63	62
Week ending March 8	49	69	78	64
Week ending March 15	47	65	75	61
Week ending March 22	50	66	69	62
Week ending March 27	46	60	65	57
Easter Holidays extended to April 22	—	—	—	—
Week ending April 26	71	92	81	83
Week ending May 3	76	83	83	81
Week ending May 10	74	80	89	81

DONCASTER ROAD INFANTS—On Roll 365.

On February 13th the Head Teacher reported that 101 children were absent. These included 43 children who were reported to be suffering from Measles. On February 15th 20 further cases occurred. The School was thereupon closed for four weeks, and should have resumed on March 18th. The period of closure was, however, carried on until the Easter Holidays on account of the large number of cases which were still occurring in the neighbourhood. The attendance on re-opening was as follows: Week ending April 26th, 85 per cent.; May 3rd, 85 per cent.; May 10th, 86 per cent.

OLD TOWN INFANTS—On Roll 248.

Old Town Infants' School was affected early in February, the attendance for the weeks ending February 15th, 22nd, and March 1st averaging 80 per cent., 56 per cent. and 50 per cent. respectively. The School was closed on March 5th for three weeks. The Easter Holiday, with the general extension until April 22nd, gave six-and-a-half week's closure. The percentage attendance for the weeks ending April 26th, May 3rd and May 10th were 79·4 per cent., 85·8 per cent., and 86·7 per cent.

BAKER STREET INFANTS' SCHOOL—On Roll 93.

This School was closed as soon as cases began to occur owing to the fact that the premises are very poor from a sanitary point of view, and that the children are largely drawn from the poorest section of the populace, that is the densely populated insanitary area including common lodging-houses around New Street.

GROVE STREET INFANTS—On Roll 145.

This School was affected early in February. The average weekly attendance from the beginning of the year to February 15th was 84·5 per cent., and for the weeks ending February 22nd, March 1st, 8th and 15th, was 78·6 per cent., 73·4 per cent., 68·1 per cent., and 63·6 per cent. respectively. On Monday, March 18th, the percentage had dropped down to 59 per cent., and further cases were reported. The School was then closed on March 20th to the end of the Easter Holidays. After re-opening the attendance for the next two weeks was 75·7 per cent. and 79·6 per cent. respectively.

ST. GEORGE'S ROAD INFANTS—On Roll 212.

On May 1st the Head Mistress reported 26 cases. The School was closed from May 8th to the beginning of the school term following the Whitsuntide Holidays, which were extended to June 2nd. Forty-six fresh cases were reported up to June 5th, six fresh cases for week ending June 11th, and 15 fresh cases for the week ending June 18th. On this date, out of 183 children present, 126 had already had Measles, and the number of absentees had decreased for the two and a half weeks the school had been open from 65 to 43. Occasional cases were reported after this, but the attendance continued to improve until the epidemic of Influenza in July brought about School closure.

St. George's Road Girls was affected at a slightly later date than the Infants. The Girls' and Infants' Schools are held in separate premises. There are 280 children on thc Roll. On May 7th, out of 140 children who had not previously suffered from Measles, 40 children, of whom 24 were 7 and 8 years old, were reported absent. The number increased to 60 on May 13th, after which the epidemic rapidly declined. No further cases were reported on the Schools re-assembling after the Whitsuntide Holidays (May 14th–26th).

ELDON STREET INFANTS—On Roll 313.

Thirty-seven cases of Measles were reported on May 16th. As only 110 out of 235 children present were protected by a previous attack and many new cases were reported, it was decided to close the School from May 27th (the date upon which the School should have re-assembled after the Whitsuntide Holidays) for a fortnight. On June 11th the number present was 263, and on June 18th 270 On this date the number of children protected by an attack had increased from 110 to 209. After this date only occasional cases were reported.

RACECOMMON ROAD, ST. MARY'S AND ST. EDWARD'S INFANTS' SCHOOLS.

The above Schools were affected at the same time, that is, early in May. The following table includes returns from these

Schools. The percentage absent on May 16th was 17·1. On June 4th, after two weeks' holiday at Whitsuntide, this number had risen to 26·9, after which date the attendance gradually improved up to July 4th, percentage absent 13·7, when all Schools were closed on account of Influenza The table shews that the incidence of the epidemic at first falls much more heavily on the younger children, and that infection of the older children is delayed and less in extent. The last serious epidemic of Measles occurred in 1914, resulting in, roughly, 50 per cent. of children then aged 1, 2 and 3 being infected. Of those not affected in that outbreak, only 8·8 per cent. of those aged 5 escaped in this epidemic, whereas 24 per cent. and 18 per cent. of those aged 6 and 7 escaped. Had it had been possible to carry on this table until the Measles was completely worked out I think the figures would have shewn more clearly the great value attaching to the postponement of the chance of infection in the later ages.

Synopsis of cases of Measles occurring in three Infant Departments *simultaneously* attacked :—

	No. of Children on Roll.		
	Aged 5.	Aged 6.	Aged 7.
Racecommon Rd. School ..	78 ..	100 ..	278
St. Mary's	77 ..	107 ..	202
St. Edward's	15 ..	26 ..	45

TABLE K.

	Date.	May 16	May 23	May 30	June 4	June 11	June 18	June 25	July 2
Number on the School Registers	Aged 5	152	..	..	174	174	174	174	173
	Aged 6	240	..	..	234	234	233	232	224
	Aged 7	116	..	..	122	121	121	120	127
	All Ages	508	..	..	530	529	528	527	524
Percentage : No. absent on account of Measles	Aged 5	27	Whitsuntide Holidays.		36·6	33·3	27·6	20·1	17·2
	Aged 6	15·4			24·3	22·6	21·4	21·5	12 0
	Aged 7	7·7			18·0	20·6	21·4	21·6	11·8
	All Ages	17·1			26·9	25·7	23·4	21·0	13·7
Percentage in attend'ce	Aged 5	67·2			52·2	57·6	63·5	61·5	65·9
	Aged 6	75·0			68·3	70·5	75·5	76·7	86·1
	Aged 7	78·4			81·2	62·8	71·0	80·0	78·0
	All Ages	73·4			64·5	64·4	69·8	73·0	77·4
Percentage : No. present unprotected by an attack	Aged 5	42·2	..	..	39·6	23·0	24·3	17·2	8·8
	Aged 6	43·9	..	..	26·9	26·9	20·0	20·0	24·0
	Aged 7	42·9	..	..	39·6	26·4	17·4	23·0	18·2
	All Ages	43·2	..	..	33·6	25·3	20 9	20·6	18·0

TREATMENT.

NURSING.

a. Visits of Enquiry and Advice were undertaken by two of the Health Visitors up to February 6th. In addition a Special Nurse was appointed to help with a work which was getting rapidly beyond our resources. They paid 3,605 first visits and 1,101 re-visits.

b. NURSING —In addition to the 4,706 visits detailed above, the visiting staff undertook the actual nursing of a few cases, 132 visits, which are included in the total below, being made. At the end of March, I was able to borrow a Nurse from the Fever Hospital, who did good work, but had to go back to the Hospital in the middle of April, just as she was getting familiar with the work. At this time the Kendray Hospital was opened for the reception of cases, and it was thought that all cases requiring nursing could be removed, but the second maximum phase of the epidemic disproved this. From May 20th to July 20th an additional whole time Nurse was employed to nurse those cases who were found to require attention, but for whom Hospital treatment was not possible. These cases, inclusive of the nursing visits referred to above, were as follows :—

	Cases.	Visits.
Recovery	106 ..	617
Fatal	21 ..	198
Transferred to Hospital ..	29 ..	93
Total	156 ..	908

As a general rule each case was visited twice daily, and the routine treatment of blanket bath, cleansing eyes, ears, nose and mouth, with materials provided by the Health Committee carried out. Occasionally the Medical attendant directed some alteration of the routine to suit his particular case. The visits of the Nurse were eagerly welcomed and their instructions faithfully carried out. Many lives were saved which otherwise would have been lost.

HOSPITAL TREATMENT.

124 cases were removed to the Kendray Fever Hospital. The first case was not admitted until April 18th, owing to the difficulty experienced in obtaining the consent of the out-townships, which are contributing authorities, to a variation in their agreement with the Borough, which mentions specifically that the diseases to be treated there are Scarlet Fever, Enteric Fever, and Diphtheria.

The considerations which influenced admission to the Hospital were that priority should be given to :—

1. Primary cases occurring in susceptible families.

2. Cases occurring in large households where nursing was difficult.

3. Cases in which complications were threatening or had occurred.

In addition to these cases, 20 were admitted from other districts (Ardsley 17, Wombwell 3). Of these five died. Of the Barnsley cases 21 died.

The Mortality Rate for the whole series of cases was 18 per cent., which is considerably higher than the rate for all cases, but not high considering the severity of the cases admitted.

Among the complications noted were :—

1.	Bronchitis	30 cases
2.	Broncho Pneumonia	27 ,,
3.	Lobar Pneumonia	5 ,,
4.	Pyæmia	3 ,,
5.	Debility	2 ,,
6.	Parotitis	1 ,,

All the serious cases presented one common feature, *i.e.*, intense sepsis of the mouth and throat, which required unremitting attention.

The average length of stay was 14·45 days. This low figure is due to a number of deaths shortly after admission. The average uncomplicated case required a fortnight, and recovery cases with a serious complication a month.

RECOMMENDATIONS.

1. Notification. Complete and prompt notification of cases is essential if effective control of a future epidemic is to be obtained. The co-operation of the public with the Medical Officer of Health, Medical Practitioners, and the School Authorities would give us that certain and swift knowledge without which sound administrative work is impossible.

At the present time every Head Teacher has a verified list of those children on the Roll who suffered in the epidemic. If this list is kept up-to-date by enquiry as to the Infectious Diseases history of each new scholar admitted, it will be possible to decide at once whether the exclusion of susceptible cases or susceptible classes or the closure of a department is necessary to eliminate school attendance as a factor in the spread of the disease.

2. Hospital Isolation and Treatment should be available for all first cases arising in a household. If this is impracticible the extreme importance of home isolation must be accepted and acted upon.

3. Provision of Home Nursing. The provision of nursing facilities by the Corporation is a very necessary measure. The assistance provided in the epidemic was eagerly accepted. Very few households could afford a private Nurse ; the Nurses employed by the Barnsley Nursing Association were fully occupied with their ordinary work, and could not with safety be employed on infectious diseases work ; whilst the Nurses employed as Health Visitors were engaged upon their ordinary duties in connection with Maternity and Child Welfare, and in ascertaining the facts with regard to cases notified or suspected to be suffering from Measles.

I should strongly advise an arrangement being entered into with the Barnsley Nursing Association whereby upon the occurrence of an epidemic they could temporarily engage additional Nurses for the home nursing of such cases as are reported by the officer investigating the case to require it.

The advantages of such an arrangement are that the Association has a call upon a large reservoir of highly-trained and experienced District Nurses. Further, they would be responsible for the maintenance and supervision of the Nurses, which, by their long experience they are fully qualified to do. As an alternative it would be possible for the Kendray Hospital Committee to maintain a small reserve of Nurses, which could be enlarged as occasion required. The serious objection to this is that when the Hospital is fully utilised, as is generally the case, the last three years being a remarkable exception, the accommodation for the staff is barely sufficient for the Hospital needs.

4. Housing. The terribly important part played by overcrowding and bad housing conditions is fairly obvious. I confidently expect that the next epidemic of Measles will find us with our scheme of improving the housing conditions of the people completed.

TUBERCULOSIS.

The outstanding feature of the Tuberculosis problem is the rapid increase of mortality which has taken place since the War.

TABLE A.

Year	Pulmonary.			Other Forms of Tuberculosis.		
	Notified	Died	Death Rate per 1,000 living	Notified	Died	Death Rate per 1,000 living
1915	144	48	0·95	14	17	0·33
1916	123	54	1·09	44	9	0·18
1917	227	63	1·31	37	21	0·44
1918	200	83	1·75	43	22	0·46

The Death Rate in 1918 is nearly double that of 1915, and as far as one can see is likely to rise still higher.

Three causative factors are at work : (1) A large number of men have been discharged from the army on account of Tuberculosis ; (2) the alterations in and actual shortages of essential articles of diet during the rationing period ; (3) the amount of overcrowding, always a prominent feature in a busy Manufacturing District like Barnsley, has become extremely serious.

The first two factors have already partially ceased to operate, and it is to be hoped that the carrying out of the Housing Schemes will materially reduce the third.

The work at the Dispensary still continues to grow, and will play, in the future, an even larger curative and educational part in our Scheme.

Provision for the treatment of hospital cases is now under consideration by the Tuberculosis Committee, and should be established in operation in the near future.

A reference to the report of the Assistant Tuberculosis Officer on page 52 shews that a Sanatorium unsupported by a well planned scheme for after treatment cannot do otherwise than produce a large number of failures in treatment. A point to be observed is that among those still at work only two have definitely entered on outdoor occupation, the bulk of the remainder being engaged in coal mining.

A scheme which has been started in an experimental manner in several parts of the country is being watched with much interest. This scheme affords training (on semi-sanatorium lines)

in agricultural pursuits to persons who have been successfully treated in a sanatorium. The chief obstacle is the financial sacrifice entailed upon the patient. This does not apply to the military cases of Tuberculosis, who receive full pension and separation allowances while undergoing institutional treatment, but to the insured and non-insured person. In the larger schemes the Colony will undertake training, under hygienic conditions, in a large number of occupations such as Tailoring, Carpentry, Cabinet Making, Boot Making and Repairing, etc., in addition to the main idea of agricultural work. They will be able, of course, to pay wages for work done. Should these schemes be successful and moderately well self-supporting, they will in all probability be undertaken by numerous authorities. It is not desirable, however, for the smaller authorities to initiate these ventures, but should the West Riding County Council take the matter up they would be assured of a large supply of patients, both from their own area and from boroughs like our own, which are not large enough to take action themselves

In the Table C. it can be seen that the important industries represented by Tuberculous persons are coal mining for men and domestic duties for women.

Sixty-five new cases occurred among school children. This brings into prominence the extreme importance of the Open-air School, which is only limited in its usefulness to the community by its size.

TABLE B.—Summary of Notifications during the period January 1st, 1918, to December 31st, 1918, in the County Borough of Barnsley.

TUBERCULOSIS NOTIFICATIONS ON FORM A. (PRIMARY NOTIFICATIONS).

Age Periods.	NUMBER OF PRIMARY NOTIFICATIONS.												
	0—1	1—5	5—10	10—15	15—20	20—25	25—35	35—45	45—55	55—65	65 and upwards	Total Primary Notifications.	Total Notifications on Form A.
Col. 1	2	3	4	5	6	7	8	9	10	11	12	13	14
Pulmonary—Males	..	6	10	9	16	6	19	19	9	4	..	98	Duplicates not entered
do. —Females	1	1	20	15	16	12	16	10	9	1	1	102	
Non-Pulmonary—Males ..	1	3	7	1	1	3	..	1	1	2	..	20	
do. —Females.	2	2	6	11	..	1	..	..	1	..	..	23	
Totals	4	12	43	36	33	22	35	30	20	7	1	243	

NOTIFICATIONS ON FORM B.

	Number of Primary Notifications.				
	Under 5	5—10	10—15	Total Primary Notifications.	Total Notifications on Form B.
Col.	15	16	17	18	19
Pulmonary—Males	..	..	..	..	..
do —Females	..	1	..	..	1
Non-Pulmonary—Males ..	..	2	..	..	2
do. —Females	..	..	5	..	5

NUMBER OF NOTIFICATIONS ON FORM C.

Poor-Law Institutions.	Sanatoria.
20	21
..	30
1	31
..	..
..	..

TABLE C.

Shewing Occupations in Age and Sex Groups

OCCUPATIONS.		0—1	1—5	5—10	10—15	15—20	20—25	25—30	30—35	35—40	40—45	45—50	50—55	55—60	60—65	65—70	Totals
1 Bobbin Worker	M																
	F				3	2	3										8
2 Boot Repairer	M					2				1							3
	F																
3 Bricklayer	M									1							1
	F																
4 Butcher	M					1											1
	F																
5 Chimney Sweep	M								1								1
	F																
6 Clerk	M					1	1			1	1						4
	F					1					1						2
7 Club Steward	M									2							2
	F																
8 Discharged Soldier	M					1	2	2									5
	F																
9 Domestic Duties	M																
	F					7	6	6	6	5	3	7	2		1	1	44
10 Electrician	M									1	1						2
	F																
11 Furnace Worker	M								1			1					2
	F																
12 Gardener	M							1				1					2
	F																
13 Glass Worker	M					1	2	2	1		1			1			8
	F																
14 Grocer	M											1					1
	F					1											1
15 Labourer	M								1	3				1			5
	F																
16 Metal Worker	M					1	1	1				1					4
	F				1	2		1			1						5
17 Milk Dealer	M							1									1
	F					1											1
18 Miner	M				2	8	2	3	5	3	1	3	1	4			82
	F																
19 Musician	M									1							1
	F																
20 Over School Age	M			19	8												27
	F			27	26												53
21 Policeman	M										1						1
	F																
22 Postman	M					1					1						2
	F																
23 Potteries	M											1					1
	F																
24 Railway Worker	M										1						1
	F																
25 Shop Assistant	M																
	F						1		1			1					3
26 Tailoress	M																
	F				1	2	1										4
27 Textile	M					1											1
	F						2	1	1								4
28 Tram Driver	M						1										1
	F																
29 Under School Age	M	1	9														10
	F	3	3														6
30 Warehouseman	M											1					1
	F																
TOTAL	M	1	9	19	10	17	9	10	9	13	7	9	1	6			120
	F	3	3	27	31	16	13	8	8	5	5	8	2		1	1	131

TABLE D.

Site of Disease in Age and Sex Groups.

DISEASE.		0—1	1—5	5—10	10—15	15—20	20—25	25—30	30—35	35—40	40—45	45—50	50—55	55—60	60—65	65—70	Total
Lungs	M	..	6	10	9	16	6	10	9	12	7	8	1	4	..	..	98
	F	1	1	20	15	16	12	8	8	5	5	7	2	..	1	1	102
Glands in Neck	M	..	1	4	1	..	..	..	..	..	..	..	..	..	..	..	6
	F	..	1	4	12	..	..	..	..	..	..	..	..	..	..	..	17
Bones	M	1	2	4	..	1	2	..	..	..	..	1	..	2	..	..	13
	F	2	1	2	4	..	1	..	..	..	..	1	..	..	..	..	11
Other Organs	M	..	..	1	..	..	1	..	..	1	..	..	..	..	..	..	3
	F	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Total	M	1	9	19	10	17	9	10	9	13	7	9	1	6	..	..	120
	F	3	3	27	31	16	13	8	8	5	5	8	2	..	1	1	131

TABLE E.

Shewing Capacity for Work in Age Groups.

	15—20 years	20—25 years	25—30 years	30—35 years	35—40 years	40—45 years	45—50 years	50—55 years	55—60 years	60—65 years	65—70 years	Total
Fit for Work ..	7	9	9	11	8	5	3	..	3	..	..	55
Not fit for Work ..	26	13	9	6	10	7	14	3	3	1	1	93
Total	33	22	18	17	18	12	17	3	6	1	1	148

TABLE F.

No. of Rooms in Infected Houses.	No. of Persons.												Total.	
	1	2	3	4	5	6	7	8	9	10	11	12		
	No. of Families.												Houses.	Occupants
2	1	...	4	4	2	...	1	...	...	...	...	...	12	46
3	...	3	5	5	6	2	3	...	...	...	...	..	24	104
4	...	10	23	28	23	28	14	3	2	...	2	...	133	646
5	1	7	8	8	13	4	4	2	3	1	2	2	55	287
6	1	1	5	1	3	3	1	3	...	1	...	...	19	99
7 and over	...	1	1	2	1	2	...	...	...	1	...	...	8	40
Families	3	22	46	48	48	39	23	8	5	3	4	2	251	...
Persons	3	44	138	192	240	234	161	64	45	30	44	24	...	1219

Families living in conditions of overcrowding, *i.e.*, more than two persons to a room, are shewn above the heavy line. The proportion per cent. of population living in infected houses equals 10·1—the rate obtaining at the Census—as compared with 13% in houses infected by Measles, and 18% in houses where fatal cases of Influenza occurred.

Report of Assistant Tuberculosis Officer and Resident Medical Officer at Barnsley and Wakefield Joint Sanatorium.

It seems rather superflous to make any comment regarding Tuberculosis after the much discussed articles in the Press. However, in spite of well laid plans, very feeble headway has been made with respect to the worst type of case, *i.e.*, the Advanced case; for unless this class of patient is isolated, the little good that is being done for the early stage cases is rapidly being undone by the spread of infection by the virulently dangerous Advanced case. The conflict is very unequal. Many people are being infected by these Advanced cases, who are sowing germs *ad lib.* by visiting friends, receiving friends at their own homes, frequenting public places of amusement, libraries, and numerous social clubs, etc.; it is therefore questionable whether the victory gained in arresting the disease of cases that come under the category of the Early and Secondary stage is worth while the the money and energy expended.

The "Contact" case, as shown by table following, is only a minor proof of what is happening in homes where the Advanced cases are housed. The Tuberculosis Nurse has done very good and valuable work in this direction by urging the members of families of Advanced cases to attend the Dispensary for periodical examinations and treatment when necessary. District Nurses nurse each case requiring it.

The Mount Vernon Sanatorium was primarily built for the early stage cases. Since the compulsory admission of Advanced cases, attention has been drawn to the urgent need of enlarging the shelters and increasing the accommodation by the provision of huts. It would, however, be desirable for the Joint Committee to erect a special Block for the Advanced cases in the piece of ground behind the present Shelters.

The Government is at present doing away with the huts of Military Camps; these could be purchased by the Committee and utilized as temporary Hospital buildings. Separate single Shelters or Open-Air Huts could be loaned to patients who are intelligent enough to carry out open-air treatment in their own available grounds or allotments on a smaller though quite as beneficial a scale as a sanatorium, always providing that the financial position of the patient is adequately guarded.

I may conclude by stating that the position of Tuberculosis Officers is very difficult, as their attempts to alleviate suffering and abate disease are hampered by defective housing of patients and the serious after war financial position of the Local Authorities they have to deal with.

M. LYON MERCADO,

Assistant Tuberculosis Officer and Medical Superintendent Mount Vernon Sanatorium.

Queen's Road Tuberculosis Dispensary.

		New Cases.	Total Cases under Treatment.	Total Attendances.	Deaths.	Classification of 146 Cases. "Contacts."		
						Positive	Negative	Doubtful
Insured ..	M	65	245	1443	21	5	2	3
,, ..	F	23	51	368	6	4	1	1
Non-Insured .	M	1	4	20	..	..	..	..
,, ..	F	40	67	335	4	9	6	5
Dependants . .	M	78	175	868	11	12	21	6
,, ..	F	112	219	780	10	15	45	11
Military ..		103	..	..	..	..	..	..
Total ..		422	761	3514	52	45	75	26

Classification of Diseases—New Cases.

Lungs	384
Glands	22
Hip	3
Lungs and Complications	4
Peritoneum	6
Skin	3
	422

Positive	160
Negative	144
Doubtful	118
	422

		Positive.	Negative.	Doubtful.
Insured	M	34	61	53
,, ...	F	12	7	4
Non-insured ..	M	1	..	..
,, ..	F	24	6	10
Dependants ..	M	33	27	18
,, ..	F	36	43	33
Totals ..		160	144	118

Nurses' Visits, 2156; Attendance at Dispensary, 168 Sessions.

Table of Attendances each Month.

1918.	Insured M.	Insured F.	Non-Insur. M.	Non-Insur. F.	Dependants M.	Dependants F.	Total.
January ..	76	31	6	24	83	73	293
February .	66	30	5	23	85	76	285
March	85	40	2	34	103	82	346
April	86	31	1	22	80	60	280
May.....	129	31	2	29	65	59	315
June	132	33	..	40	84	90	379
July.....	80	21	1	17	41	36	196
August ...	112	23	..	30	56	53	274
September.	83	24	3	18	55	54	237
October...	107	38	..	32	59	59	295
November.	120	42	..	42	100	80	384
December .	67	24	..	24	57	58	230
	1143	368	20	335	868	780	3514

Table of New Cases examined each Month.

1918.	Military M.	Insured. M.	Insured F.	Non-Insur. M.	Non-Insur. F.	Dependants. M	Dependants F	Total
January .	2	6	4	..	3	8	10	33
February.	3	3	1	..	3	21	16	47
March ...	6	13	3	..	8	14	11	55
April	9	6	1	..	6	5	6	33
May	17	10	1	..	4	2	16	50
June	21	6	2	1	6	5	14	55
July	17	5	2	..	..	2	8	34
August ..	26	6	1	..	2	5	4	44
September	1	3	3	..	..	3	6	16
October ..	1	5	4	..	4	4	7	25
November	..	1	1	..	2	7	6	17
December	..	1	..	..	2	2	8	13
	103	65	23	1	40	78	112	422

TABLE SHEWING BIRTHS, AGE GROUPS AND CAUSES OF DEATH IN SPECIAL AREAS FOR YEARS 1915, 1916, 1917 AND 1918.

	South-East Ward.											South Ward.								Totals
	Baker St.	Raywood Row	Park Row	John St.	Thomas St.	Joseph St.	Wood St.	Wilson St.	Burleigh St.	Heelis St.	New St.	Lower Thomas St.	Lower Joseph St.	Princess St.	Pall Mall	Silver St.	New St.	Foundry St.	Wellington St.	
TOTAL BIRTHS	27	2	19	22	18	33	19	35	15	38	22	9	16	6	9	54	40	1	...	385
Illegitimate Births	9	...	1	1	4	2	3	6	1	2	...	1	2	...	1	11	8	1	...	53
AGES AT DEATH—																				
0—1 year	1	...	3	5	3	7	3	4	...	4	6	1	2	2	2	11	18	...	...	72
1—2 years	3	...	2	3	...	4	1	5	1	3	4	2	...	...	1	3	8	...	...	40
2 5 years	3		3	...	1	2	...	3	1	4	1	2	2	...	...	3	1	...	...	26
5–15 years	2	...	1	...	3	..	...	2	1	3	...	2	1	1	1	...	3	...	...	20
15–25 years	1	1	...	...	.	..	..	1	...	1	1	...	1	...	...	1	2	...	...	9
25—45 years	8	1	5	...	...	1	3	2	1	1	1	...	...	1	...	3	1	...	...	28
45—65 years	12	1	4	3	2	5	4	6	5	2	3	2	1	5	1	5	7	...	...	68
65 years and over	12	...	7	1	3	6	...	3	1	1	7	2		3	...	6	3	...	...	55
CAUSES OF DEATH—																				
Measles	...	...	2	1	1	1	2	2	1	4	1	4	...	1	1	2	4	...	...	27
Whooping Cough	1		...	1	...	...	1	1	...	...	1	...	1	...	...	...	2	...	...	8
Diphtheria	1	..	...	..	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	2
Influenza	1	...	2	...	3	2	...	2	1	1	1	1	1	1	..	3	5	..	...	24
Phthisis Pulmonalis	5		1	1	...	1	1	2	1	...	3	...	1	...	...	1	2	..	...	19
Tuberculous Meningitis	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	3
Other Tuberculous Diseases	...	...	...	...	1	1	..	...	...	...	...	..	..	...	...	...	...	...	...	2
Cancer	3	..	2	...	...	1	2	3	...	...	...	2	1	...	...	...	...	...	...	14
Meningitis	..	...		...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	..	3
Organic Heart Disease	3	2	2	...	...	1	1	3	...	...	..	1	...	2	...	2	...	...	...	17
Bronchitis	4	...	2	2	1	2	1	2	1	2	4	1	...	...	...	6	7	...	...	35
Pneumonia	7	1	3	1	2	3	1	2	1	4	3	...	1	2	2	3	5	...	...	41
Other Diseases of Respiratory Organs	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...		1	...	...	3
Diarrhœa and Enteritis	1	...	...	2	...	3	...	...	...	2	3	...	...	...	1	3	7	...	...	22
Alcoholism	..	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Nephritis and Bright's Disease	5	...	2	1	...	1	...	1	1	...	...	1	...	...	...	2	...	...	...	14
Other Accidents and Diseases of Pregnancy and Parturition	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Congenital Debility and Malformation (including Premature Birth)	1	...	1	1	1	3	...	5	...	2	1	...	1	1	1	1	4	..	...	23
Violent Deaths (excluding Suicide)	2	...	1	...	1	...	...	1	...	.	...	...	...	1	...	2	2	...	...	10
Suicide	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Other Defined Diseases	7	...	5	2	1	6	2	2	2	1	5	...	...	3	...	6	4	...	...	46
Diseases Ill-defined or unknown	...	...	...	...	...	...	...	...	1	...	..	...	..	...	...	1	..	...	..	2
Totals	42	3	25	12	12	25	11	26	10	19	23	11	7	12	5	32	43	...	..	318

Contacts, including New Cases :—

Insured.		Non-Insured.		Dependants.	
M.	F.	M.	F.	M.	F.
10 ..	6	— ..	20	39 ..	71

Positive, 45
Negative, 75. Total, 146.
Doubtful, 26.

Table of attendances at the Dispensary for the years 1916–1917–1918 :—

Year.	Insured.	Non-Insured.	Dependants.	Totals.
1916	426	186	916	1528
1917	918	216	1290	2424
1918	1511	355	1648	3514

Return of Barnsley Cases treated in Sanatorium during 1918 :—

		On Books, 1917.	Admitted, 1918.	Discharged 1918.	On Books, 1918.
Insured ..	M.	7	19	22	4
,, ..	F.	4	7	9	2
Non-Insured	M.	3	9	7	5
,,	F.	6	20	17	9
Total ..		20	55	55	20

NOTE.—Of the 55 under the discharged column, 5 Deaths are included.

After history of Barnsley patients treated in the Sanatorium since opening in January, 1915 :—

Year.	Admitted.	Doing Old Work.	Open-Air Work.	Not Working.	Returned to School.	Not attending School.	Left the District.	Dead.
1915	62	17	2	8	5	4	4	22
1916	56	21	..	3	5	..	4	23
1917	49	20	..	4	7	2	5	11
1918	55	26	2	9	7	4	2	5
	222	84	4	24	24	10	15	61

Excluding the 15 whose after history is unknown, it appears that 29 per cent. have died, and 54 per cent. have returned to their work or school.

VENEREAL DISEASE.

I have again to report that no local facilities for treatment have been provided. I have been unable to get any return as to the use made of the Clinics at Sheffield and Leeds, but as an indication I may state that nearly 30 free railway vouchers to either of the above towns have been issued by the department during the last month.

SPECIAL AREA.

I include separate tables relating to an area which has received much attention from your Committee. This area was the subject of a special report in May, 1916 and 1917, and is one scheduled for re-construction in the report of Mr. J. H. Taylor, the Borough Surveyor.

The area is bounded by Baker Street, part of Heelis Street, part of Wood Street, part of Princess Street, Foundry Street, and part of Wellington Street. It is situated in the South and South-East Wards, being bi-sected by New Street.

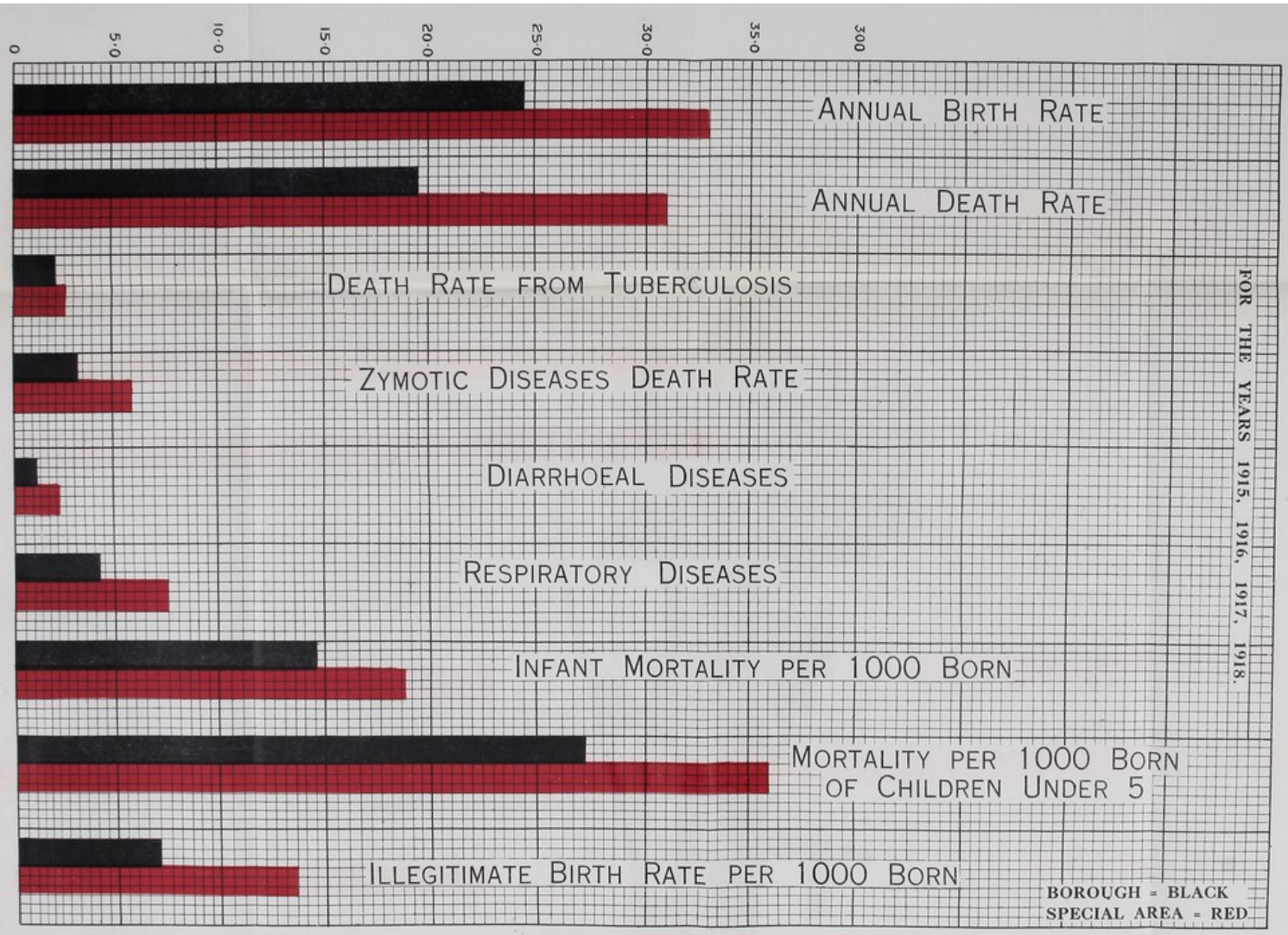
For reasons already dealt with, alterations and repairs are practically at a standstill, with a consequent increased rate of deterioration in the condition of yards and houses constituting the area.

The figures, dealing with four years, have more value than when previously given.

The Total and Civilian population for the Borough is the average of the annual population supplied by the Registrar General.

The civilian population in the special area was enumerated in May. 1916, the total population being estimated to be in the same proportion to the civilian population as it is in the Borough as a whole.

The average population for the special area for the four years is calculated to be in the same proportion as it is in the Borough as a whole.


0
5·0
10·0
15·0
20·0
25·0
30·0
35·0
300
ANNUAL BIRTH RATE
ANNUAL DEATH RATE
DEATH RATE FROM TUBERCULOSIS
ZYMOTIC DISEASES DEATH RATE
DIARRHOEAL DISEASES
RESPIRATORY DISEASES
INFANT MORTALITY PER 1000 BORN
MORTALITY PER 1000 BORN OF CHILDREN UNDER 5
ILLEGITIMATE BIRTH RATE PER 1000 BORN
FOR THE YEARS 1915, 1916, 1917, 1918.
BOROUGH = BLACK
SPECIAL AREA = RED

Summary of Vital Statistics for the years 1915, 1916, 1917 and 1918, for the whole Borough and the Special Areas.

	Borough.	Special Areas.
Average Population—		
(*a*) Total	53,500 ..	2,909
(*b*) Civilian only	48,735 ..	2,569
Annual Birth Rate per 1,000 living ...	24·40 ..	33·00
Illegitimate Birth Rate per 1 000 born ..	68·5 ..	138·00
Annual Death Rate per 1,000 living ..	19·35 ..	30·94
Annual Death Rate from—		
(*a*) Tuberculosis	1·62 ..	2·33
(*b*) The Seven principal Zymotic Diseases	2·85 ..	5·74
(*c*) Diarrhœal Diseases	0·97 ..	2·14
(*d*) Respiratory Diseases	3·92 ..	7·69
Infant Mortality per 1,000 born ..	146 ..	187
Mortality per 1,000 born of children under five years	272 ..	358

KENDRAY HOSPITAL.

The number of Cases admitted of those diseases ordinarily treated was slightly lower than the number in 1917, which year constituted the lowest on record.

The Table following shews the numbers treated during the past sixteen years.

SUMMARY OF CASES TREATED AT THE ISOLATION HOSPITALS, 1903-1918.

	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	TOTALS. Cases	TOTALS. Deaths	TOTALS. Mortality percent.	1918 Mortality percent.
Small-Pox ..	59	105	126	..	..	..	..	..	..	..	..	..	..	..	..	290	13	4·48	..
(Lund Wood)																			
Enteric Fever ..	101	91	98	94	87	146	123	66	76	53	55	88	21	10	23	1132	168	14 84	19·51
Diphtheria ..	47	75	21	34	40	27	27	45	102	86	194	138	104	98	83	1121	80	7·13	4·87
Scarlet Fever ..	215	462	572	494	467	587	346	310	364	362	443	555	456	198	76	5907	150	2·54	1·42
Measles	..	..	..	..	..	..	..	..	..	..	..	19	2	..	1	22	..	0·00	17 80
Influenza ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	25·00
Cerebro-Spinal Meningitis..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	2	2	100·00	100·00
Puerperal Fever..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	100·00
Mumps	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..
German Measles..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4	..	..	..
Chicken Pox ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	2	..	..	..
Summer Diarrhoea..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	13	1	7·69	..
Total	422	733	817	622	594	760	496	421	542	501	692	800	586	309	199	8494	414	4·87	12·43
Barnsley Cases..	140	310	289	250	239	297	146	109	179	231	131	206	163	97	69	2856	..	..	..

Cases of Measles were admitted for the first time, 146 cases being treated in the Long Block. Towards the end of the year a few cases of Influenza were admitted, and at various times one case each of Meningitis, Puerperal Fever and German Measles.

The admissions and discharges, etc., allocated to the various contributing authorities are set out in the main Table following, while the two subsidiary Tables deal with the extent to which the accommodation was utilised.

MORTALITY.

	No. of Cases Admitted.	No. of Deaths.	Mortality per cent.	1903 to 1917.
Enteric Fever ..	41	8	19·51	14 34
Diphtheria ..	82	4	4·87	7·13
Scarlet Fever ..	70	1	1·42	2·54
Measles	146	26	17·80	..
Influenza ..	12	3	25·00	..
Meningitis ..	1	1	100·00	..
Puerperal Fever.	1	1	100·00	..
German Measles.	1	..	..	..
Totals ..	354	44	12·43	4·87

Four cases of Laryngeal Diphtheria required tracheotomy, of whom two died.

For the second year in succession there were no "return" cases of Scarlet Fever.

The total Bed-days occupied in 1918 (the days of admission and discharge being regarded as one day) and the daily average number of beds occupied are as follows :

	Total Days.	Average Beds Occupied.		
		1918.	1917.	1916.
Enteric Fever ..	1186	3·25	2·33	1·07
Diphtheria ...	2584	7·08	7·31	7·7
Scarlet Fever ..	2565	7·00	6·49	26·15
Measles	2111	5·76	..	0·1
Other Diseases..	95	0·26	0·73	..
Totals ..	8541	23·40	16·86	35·02

KENDRAY FEVER HOSPITAL. REPORT FOR YEAR ENDED DECEMBER 31st, 1918.

CONTRIBUTING AUTHORITIES.	Remaining in Hospital, 31/12/17.			ADMITTED.							DISCHARGED.							DIED.							Remaining in Hospital, 31/12/18.			
	Diphtheria	Scarlet Fever	TOTAL	Enteric Fever	Diphtheria	Scarlet Fever	Measles	Influenza	Other Diseases	TOTAL	Enteric Fever	Diphtheria	Scarlet Fever	Measles	Influenza	Other Diseases	TOTAL	Enteric Fever	Diphtheria	Scarlet Fever	Measles	Influenza	Other Diseases	TOTAL	Diphtheria	Scarlet Fever	Influenza	TOTAL
Ardsley	3	1	4	1	11	3	17	..	..	32	1	11	4	13	..	..	29	..	..	..	4	..	..	4	3	..	..	3
Barnsley	3	3	6	8	48	26	126	12	3	223	8	51	27	10	2	1	194	..	..	..	21	3	2	26	..	2	7	9
Barnsley Rural ..	..	..	..	..	1	7	..	..	..	8	..	..	7	..	..	..	7	..	1	..	..	..	..	1	..	..	..	..
Cudworth	..	..	..	2	1	..	..	..	..	3	..	..	..	..	..	..	..	2	1	1	..	..	..	4	..	..	..	..
Darfield	..	1	1	..	3	1	..	..	..	4	..	3	1	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..
Darton	..	..	..	2	3	8	..	..	..	13	1	..	7	..	..	..	8	1	2	..	..	..	..	3	1	1	..	2
Dodworth	..	..	..	..	..	1	..	..	..	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Hoyland	..	..	..	1	3	4	..	..	..	8	1	3	3	..	..	..	7	..	..	..	..	..	..	..	..	1	..	1
Monk Bretton ..	3	..	3	..	..	2	..	..	..	2	..	3	2	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..
Royston	..	..	..	..	2	..	..	..	..	2	..	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..
Wombwell	..	5	5	26	9	9	3	..	..	47	21	9	13	2	..	..	45	5	..	..	1	..	..	6	..	1	..	1
Worsbro'	..	..	..	1	1	9	..	..	..	11	1	1	9	..	..	..	11	..	..	..	..	..	..	..	..	..	..	..
Totals	9	10	19	41	82	70	146	12	3	354	33	83	74	120	2	1	313	8	4	1	26	3	2	44	4	5	7	16

It will be seen that the Borough contributed one-fifth of the cases of Enteric, three-fifths of the cases of Diphtheria, one-third of the cases of Scarlet Fever, and six-sevenths of the cases of Measles, while nearly two-thirds of the cases of Enteric were sent by Wombwell. One Nurse contracted Enteric and recovered, one Nurse contracted Scarlet Fever and recovered from this to fall a victim to Influenza later in the year.

The daily average number of Nursing Staff was 11·75, and Domestic Staff 7·15.

The average length of stay in Hospital of those cases who were discharged or died in 1918, whether admitted in 1918 or previously was as follows :—

	No. of Cases Discharged in 1918.	Total Days in Hospital.	Average Days in Hospital.		
			1918.	1917.	1916.
Enteric Fever ..	41	1186	28·83	37·09	39·2
Diphtheria ..	87	2751	31·62	33·09	29·5
Scarlet Fever ..	75	2528	33·70	31·43	45·49
Measles	146	2111	14·45	..	12·00
Influenza ..	5	32	6 4	..	..
Meningitis ..	1	2	2	..	..
Puerperal Fever.	1	1	1	..	..
German Measles.	1	8	8	..	..
All Cases ..	357	8619	24·14	31·46	40 5

LUND WOOD HOSPITAL.

The Hospital was opened on November 5th, 1914, as a Military Hospital. It was closed on February 5th, 1919.

Statement shewing the Total Expenditure for five years ended 31st March, 1915, 1916, 1917 and 1918, and for the period 31st March, 1918 to 28th February, 1919.

Year.	Total Expenditure.			Total Income.			Nett Cost.		
	£	s.	d.	£	s.	d.	£	s.	d
31st March, 1915...	1,670	5	11	594	1	6	1,076	4	5
31st March, 1916...	2 001	3	1	1,201	11	3	799	11	10
31st March, 1917...	2,717	10	1	2,115	7	6	602	2	7
31st March, 1918...	2,811	5	7	1 773	2	6	1,038	3	1
28th Feb., 1919...	1,487	15	5	1,264	1	0	223	14	5
Totals ...	£10,688	0	1	£6 948	3	9	£3,739	16	4

	£	s.	d.
Average Net Cost per year (4½ years) ...	831	1	5
,, ,, ,, day	2	8	3
,, , ,, bed per day		1	10
The Total Amount received from War Office...	5,763	7	9
An Average per day of	3	14	2
,, ,, bed per day		2	10

The Average Net Expenditure per year for the five years ended 31st March, 1910, 1911, 1912, 1913 and 1914 was £458, as against £831 for the period the Hospital has been used as a Military Hospital, which gives an increased average cost per year to the Corporation of £373.

WILLIAM H. ROCK,

Borough Accountant.

Borough Accountant's Office,
Manor House,
Barnsley.
3rd March, 1919.

LUND WOOD STATISTICAL ABSTRACT.

Year.	Number Admitted.	Days Open.	Total Days in Hospital.	Average Daily Beds Occupied.
1914	52	57	1296	22·73
1915	496	365	9608	26·32
1916	570	366	11842	32·36
1917	433	365	9441	25·86
1918	293	365	8416	23·05
1919	28	36	362	10·05
Total...	1872	1554	40965	26·36

Year.	Number Discharged.	Total Days in Hospital.	Average Length of Stay.
1914	38	1196	31·47
1915	482	9636	19·99
1916	561	11939	21·26
1917	423	9093	21·49
1918	336	8616	25·64
1919	32	485	15·15
Total ...	1872	40965	21·88

Pathological Examination, and Supplies of Antitoxin, etc.

	Private Practitioners.				Medical Officer of Health's Department.				Kendray Hospital.		
	Diphtheria.	Enteric Fever.	Tuberculosis.	Syphilis	Diphtheria	Enteric Fever.	Tuberculosis.	Gonnorrhœa.	Diphtheria.	Enteric Fever.	Tuberculosis.
THROAT EXAMINATION—											
Positive	4	...	6	11	...	...	12	5	76	8	...
Negative	7	2	9	19	4	..	98	4	185	28	2
ISSUES OF SUBSTITUTE FOR SALVARSAN—											
Gallyl = nil.											
ISSUES OF ANTITOXIN—	phials								phials		
By M.O.H.'s Office ...	8	...	..	...	..	...	...	...	136	...	...
Police Station	24	...	...	...	...	...	...	...	...	...	...
Sanitary Department	24	..	...	...	...	...	...	...	...	...	...

MATERNITY AND CHILD WELFARE.

I. Midwives.

Eighteen Midwives, of whom two are practising as Monthly Nurses, notified their intention to practice during the year.

Sixteen of these live in the Borough and two outside, but the latter only take occasional cases.

The experiment of subsidizing a certified trained Midwife began in November, 1917, was carried on until the end of 1918. Her services were engaged on 12 occasions only, so that it was not thought fit to advise the Committee to continue on these lines for the present.

One Midwife retired on account of age and increasing infirmity.

Twenty-nine reports were sent to the Medical Officer of Health stating that a Midwife had had to send for medical help. The reasons given for sending were stated as follows :—

Transverse Presentation, 5 ; Still Birth, 1 ; Sickness of Mother, 3 ; Prematurity of Infant, 3 ; Post Partum Hæmorrhage, 3 ; Ante-Partum Hœmorrhage, 1 ; Difficult Labour, 4 ; Lacerated Perinaeum, 5 ; Debility of Child, 2 ; Abnormalities, 2.

It was found necessary to direct the temporary suspension of a Midwife in an instance where two cases of Puerperal Fever occurred in her practice at a short interval of time.

In three cases Measles occurred in the house while the Midwife was still attending. Emergency help was provided by the Committee for the completion of the necessary attendance on the case, while the Midwife and her effects were forthwith disinfected in order that she might resume her work.

II. Work of the Health Visitors.

The permanent staff consists of three Health Visitors, viz. :— Miss Heyes (appointed in February, 1918), Mrs. Barber (October, 1917), and Miss Petford (July, 1918). The work in connection with the Tuberculosis Dispensary and the visiting in connection therewith is in the hands of Miss Blackmore (October, 1917).

Temporary Nurses have been engaged from time to time as required for the purpose of nursing Measles and Influenza cases. Their work is summarised below.

III. Infant Consultation Centre.

Total number of cases attending Clinic, 523, of whom 69 were on the books in 1917. These made 3484 attendances, an average of nearly 7 each. 402 children were seen by the Medical Officer.

Of these			Total Visits.
202	paid	1 visit	202
88	,,	2 visits	176
47	,,	3 ,,	141
22	,,	4 ,,	88
20	,,	5 ,,	100
6	,,	6 ,,	36
3	,,	7 ,,	21
5	,,	8 ,,	40
2	,,	9 ,,	18
1	,,	10 ,,	10
1	,,	11 ,,	11
2	,,	12 ,,	24
1	,,	13 ,,	13
1	,,	14 ,,	14
1	,,	15 ,,	15
Totals 402			909

45	were under	1 month	
103	between	1-2	months
69	,,	2-3	,,
92	,,	3-6	,,
23	,,	6-9	,,
15	,,	9-12	,,
55	were over	1 year	
Total 402			

Reason for Visit :—

To be Weighed	102
Atelectasis Pulmonum	1
Ophthalmia Neonatorum	17
Epilepsy	1
Scabies	7
Conjunctivitis	2
Enteritis	1
Bronchitis	10
Rickets	12
Teething	4
Whooping Cough	6
Nervous Disease	1
Impetigo	3
Thrush	3
Eczema	4
Congenital Syphilis	3
Cough	6
Otorrhœa	2
Umbilical Hernia	4
Cleft Palate and Hare Lip	1
Colic	1
Tubercular Peritonitis	4
Anæmia...	2
Nephritis	1
Dietetic Disturbance, including Marasmus, Debility, and Summer Diarrhœa ...	204
Totals	402

SUMMARY OF NOTIFICATIONS UNDER THE NOTIFICATION OF BIRTHS ACT, 1907.

Wards.	By Medical Practitioners.	By Midwives.	By Parents.	Totals.	Still Births.
North	23	118	2	143	5
South	18	155	10	183	9
East	13	115	2	130	9
West	45	157	5	207	6
South-East ...	27	440	10	477	8
South-West ...	12	116	1	129	3
Totals ...	138	1101	30	1269	40

Infants' Foods Sold during 1918.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
Glaxo .. lbs.	141	91	85	105	130	117	164	139	105	183	133	161	1554
Cow and Gate Half-Cream ,,	26	17	21	18	20	10	16	7	28	19	10	..	192
Cow and Gate Full-Cream ,,	55	86	56	51	51	62	65	73	135	122	9	97	862
Nestle's	30	21	13	21	10	7	18	13	15	23	11	29	211
Allenbury's—No. 1..	..	..	..	..	..	..	..	..	..	..	..	3	3
No. 2..	..	..	..	..	..	..	..	..	..	..	..	1	1
No. 3..	..	..	..	..	..	..	..	..	..	..	..	1	1
Total ..	252	215	175	195	211	196	263	232	283	347	163	292	2824

Foods given free since June 25th, 1918.

Glaxo	51 packets.
Cow and Gate—Full Cream	45 tins.
Do. Half-Cream	1 ,,
Nestle's	10 ,,
Total	107

Total Attendances, 1918.

Jan,	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
321	367	171	219	242	277	315	213	338	476	300	245	3,484

SUMMARY OF THE WORK OF THE HEALTH VISITORS.

	Maternity & Child Welfare.					Infectious Diseases.				Tuberculosis.		
						Measles.						
	First Visits.	Second Visits.	Midwives' Visits.	Ante-natal Visits.	Death Enquiries (1—2 years).	Enquiry and Advice.	Nursing.	Diarrhœa.	Opthalmia.	First Visit.	Re-Visits.	Death Enquiries.
North Ward.....	156	1230	3	—	36	538		5	50	50	223	10
South Ward.....	196	683	18	6	38	492		2	27	64	236	12
East Ward	131	507	—	—	13	512		4	29	39	183	7
West Ward.....	245	823	19	4	45	516		1	35	53	182	8
South-East Ward.	420	1663	16	41	69	2002		10	38	188	524	29
South-West Ward.	133	635	6	—	21	646		2	20	44	290	14
Total	1281	5541	62	51	222	4706	908	24	199	438	1638	80

Summary—Maternity and Child Welfare ... ... 7,157 Visits
Infectious Diseases ... ... 5,837 ,,
Tuberculosis ... ... 2,156 ,,

Total ... ... 15,150 ,,

Sanitary and Cleansing Department.

HEALTH COMMITTEE, 1918-1919.

Alderman Holden, J.P. (Chairman).
" Rose, J.P.
Councillor Bray, J.P.
" Chappell, J.P.
" Cotterill, J.P.
" Cretney.
Councillor England, J.P
" Foulstone.
" Plumpton, J.P.
" Tipping.
" Walker.
" Wood.

SANITARY DEPÔT MANAGEMENT SUB-COMMITTEE.

Alderman Holden, J.P. (Chairman).

Alderman Rose, J.P., Councillor England, J.P.

CHIEF SANITARY INSPECTOR.

William Savage, A.R.S.I.

ASSISTANT SANITARY INSPECTOR.

T. O'Meara, A.R.S.I.

VETERINARY SURGEON.

C. Secker Smith, M.R.C.V.S., F.E.V.M.S.

HOUSE INSPECTOR.

John Pickering.

CLERKS.

H. Spalton. G. Allemby. C. Sheardown.

The death (June 21st, 1919) of Mr. William Savage, who had been your Sanitary Inspector for sixteen years, necessitates my including in the report a Summary of the work of his department.

Mr. Savage had already prepared the material and a few notes, which are embodied in the report.

THE

ANNUAL REPORT

OF THE

SANITARY INSPECTOR,

FOR THE

YEAR ENDED DECEMBER 31ST, 1918.

CANAL BOATS.

During the year inspections have been made of 7 Canal Boats, 6 of which were in a satisfactory condition, and 1 was bad as regards cleanliness. The master was warned.

FACTORIES AND WORKSHOPS.

During the year 85 inspections of Factories and Workshops have been made, and on the whole those inspected have been found to be satisfactory.

SMOKE OBSERVATIONS.

No Smoke Observations have been made during the past year.

DAIRIES, COWSHEDS AND MILKSHOPS.

There are 12 farmers in the Borough who produce about 180 gallons of milk per day, and 30 farmers who bring milk into the Borough from the outside districts, bringing in, on an average, 938 gallons per day, making a total of 1,118 gallons of New Milk sold in the Borough daily. This estimate was obtained in January. The amount produced in the summer is considerably higher.

The sanitary conditions of the majority of the Cowsheds leaves room for considerable improvement both as regards ventilation and cleanliness.

FRUIT AND VEGETABLES.

The shops dealing in these articles have been frequently inspected, with the result that it has been found necessary to destroy, as unfit for human consumption, the following :—

Mushrooms	33 lbs.
Watercress, 5 baskets weighing ..	343 lbs.

FISH, RABBITS AND POULTRY.

It has been necessary to destroy 9½lbs. Finnon Haddock, 170lbs. Bloaters, 93½lbs. Kippers, and 63lbs. Herrings, and 74lbs. Rabbits.

MEAT INSPECTION.

The following is a list of unsound meat condemned as unfit for human consumption :—

		Stones.	Lbs.
Beast, whole 20	weighing	781	4
Beasts, portions of	,,	38	13
Frozen Beef	,,	168	6
Frozen Mutton	,,	31	12
Lungs		1 pair	
Hearts		3	
Livers		3	
Fat		3 stones	
Sausage		5¼ lbs.	
Tripe, 4 bags		24 st. 7 lbs.	
Ham		77 lbs.	
Corned Beef		118 lbs.	

Since the last report was presented the central slaughter-house system has been established at the Barnsley British Co-operative Society's premises in Perseverance Street. The value of the public slaughter-house system is amply demonstrated when the amount of meat condemned in 1916 and 1917 is compared with the amount condemned in 1918, viz., 1916, 184 stones ; 1917, 73 stones ; 1918, 1019 stones ; although the central system has only been in existence during the latter half of the year 1918.

GENERAL INSPECTIONS.

Houses inspected	2,375
Nuisances investigated	717
Water Closets attended to	1,164
Houses disinfected	456
Conversion of Privy notices served	6
Conversions undertaken	14
Informal notices served	98

506 Notices were served which related to the following defects :—

Filthy dwelling-houses	79
,, bedding	14
,, cellars	9
,, water closets	21
,, waste water closets	9
,, yards	27
Overcrowding	48
Defective drainage	94
,, water closets	64
,, sink stones	18
,, sink pipes	56

Defective waster water closets	13
,, yard drains	6
,, sink gullies	2
,, sink drains	30
,, ceilings	117
,, fall pipes	2
,, roofs	12
,, spouts	11
,, inspection chambers	4
,, chimneys	7
,, walls	9
,, ovens	2
,, fire grates	2
,, floors	3
,, windows	8
Dilapidated gable end	1
,, door steps	2
,, stair steps	1
,, ashpits	12
,, privies	3
Depositing slops in yard	2
,, ,, highway	1
,, rubbish in water closets	4
,, ,, in waste water closet ..	10
Accumulations of manure	14
	717

Number of persons supplied with Disinfectant (one pint each), 1,307

FOOD AND DRUGS.

During the year there have been 92 samples of Food and Drugs taken and submitted to the Analyst. The following is a summary of the articles taken :—

New Milk	66
Butter	7
Lard	8
Compound of Lard	1
Superfine Beef Dripping	1
Sugar	3
Tea	1
Coffee	1
Cheese	1
Vinegar	3
	92

With the result that :—

New Milk—Found to be of superior quality	.. ..	9
,, ,, genuine	.. .. ..	41
,, ,, fair quality	.. .. ..	10
,, ,, deficient in milk fat	..	6
Butter— ,, ,, genuine	.. .. ..	7
Lard— ,, ,, ,,	.. .. ..	8
Compound of Lard—Found to be genuine	.. ..	1
Superfine Beef Dripping—Found to be genuine	..	1
Sugar—Found to be genuine	.. ..	3
Tea— ,, ,, ,,	.. ..	1
Coffee— ,, ,, ,,	.. ..	1
Cheese— ,, ,, ,,	.. ..	1
Vinegar— ,, ,, ,,	.. ..	3
		92

Of the six cases of deficiency in Milk Fat, three of the vendors were fined 40/- and costs, one was fined 20/- and costs, and the other two were warned.

SCAVENGING.

	Loads
Nightsoil, Slaughter-house Refuse, etc., removed during the night-time	5,636
Refuse removed during the day-time	18,474
,, ,, ,, ,, by tradespeople ..	1,516
Total number of loads removed during the year ..	25,626

Total number of loads from privies	5,536
,, ,, ,, slaughter-houses	100
,, ,, ,, ashpits and bins	15,907
,, ,, ,, trade refuse	1,300
,, ,, ,, ,, by tradespeople..	1,516
,, ,, ,, bell-cart refuse	1,267
	25,626

Total number of loads from cesspools—Honeywell	2,035	
Pogmoor..	196	
		2,231
Total number of garbage tubs emptied		1,779

DISPOSAL OF REFUSE.

Loads sent to Warren Quarry, Taylor's Tip	12,272
,, ,, ,, Destructor	1,581
,, ,, ,, ,, by tradespeople.	1,516
,, ,, Pogmoor	7,814
,, ,, Kingstone	21
,, ,, Smithies Lane	383
,, ,, Local Farmers	345
,, ,, Farmers by rail	1'424
	25,626

From cesspools put down sewer in Honeywell lane ..	2,035
,, ,, ,, on land at Pogmoor	196
	2,231

Warren Quarry Lane Tip is full and cannot be used except for Destructor Refuse.

HORSE DEPARTMENT.

In this department we have had very little sickness amongst the horses, the Veterinary's charges being only £15 15s. 0d. for medicine and attendance, or a fraction over 3d. per horse per week, in this amount being included the charges incurred during the outbreak of influenza.

The two ambulance horses have made 248 journeys with the ambulance, and additional light work removing bedding, &c., for disinfection.