[Report 1905] / Medical Officer of Health, Kirkby-in-Ashfield U.D.C.

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KIRKBY-IN-ASHFIELD

Urban District Council.

Annual Report

For 1905,

BY

JOHN MACKENZIE,

Medical Officer of Health.

EAST KIRKBY:

W. HOLLINGSWORTH, PRINTER, LOW MOOR ROAD.

Kirkby-in-Ashfield

URBAN DISTRICT COUNCIL.

Chairman :

W. H. HENSON, Esq., J.P.

Vice-Chairman :

JOSEPH SMITH, Esq.

Councillors :

EAST WARD.

W. DAVISON
J. G. SHACKLOCK
JOHN MERCER
ENOCH BOWEN
WILLIAM BIRD

WEST WARD.

W. H. HENSON
GEORGE HY. HUNT
T. RILEY
FRANK RAWSON
HY. HOLT.

SOUTH WARD.

JOHN TATE
JOSEPH SMITH
GEO. KNOWLES
FRED. W. ABBOTT
MOSES WEBSTER.

Clerk :

E. B. HIBBERT, Esq.

Medical Officer of Health :

JOHN MACKENZIE.

Sanitary Inspector :

WILLIAM MASSEY.

Surveyor :

W. DODSLEY.

Collector of General and District Rates :

SAMUEL UNWIN.

Water Manager :

L. LEIVERS.

Gas Manager :

H. SHADBOLT.

REPORT.

To the Chairman and Members of the

Kirkby-in-Ashfield Urban District Council.

GENTLEMEN,

I beg to submit the Annual Report on the Health and Sanitary circumstances of your district.

A retrospect of the last 10 years

This being the 10th Annual Report since the Parish was created an Urban District, it seems to me a suitable occasion for retrospect. To review the past with the knowledge acquired from experience is a wise step in sanitary work; and however much may have been accomplished will show what still remains to be done.

Mr. Hibbert's death.

May I preface this review by an expression of unfeigned sorrow at the sudden death of your Clerk, Mr, G. H. Hibbert, to

Cases of Infectious Diseases notified during the last 10 years with (a) rate per 1000 notified; (b) Zymotic death-rate including Diarrhœa; (c) Zymotic death-rate not including Diarrhœa.

WHOLE DISTRICT.							LOCALITIES OR WARDS.				
Years.	Population.	Number Notified.	Rate per 1000 Notified.	Deaths.	Deathrat. per 1000 including Diarrhœa	De'th r'te per 1000 not includ Diarrhœa	Numb'rs notified in Wards.		Population	Deaths,	Zymotic death rate including Diarrhœa.
1896	8520	78	9.1	42	4.9	4.1	35	East Ward	4000	20	5.0
							25	West ,,	2194	8	3.6
							18	South ,,	2326	14	6.0
1897	8898	84	9.4	18	2.0	1.3	39	East Ward	3545	7	1.9
							21	West ,,	2300	4	1.7
							24	South ,,	3200	7	2.1
1898	9277	108	11.6	30	3.3	1.6	58	East Ward	3540	13	3.6
							23	West ,,	2620	4	1.5
							27	South ,,	3415	13	3.8
1899	9655	223	23.0	33	3.4	2.1	88	East Ward	3590	10	2.7
							101	West ,,	3060	15	4.9
							34	South ,,	3515	8	2.2
1900	10034	65	6.4	17	1.8	0.6	19	East Ward	3705	9	2.4
							24	West ,,	3225	3	0.9
							22	South ,,	3610	5	1.3
1901	10412	43	4.1	24	2.3	1.3	16	East Ward	3872	10	2.5
							25	West ,,	3173	9	2.8
							2	South ,,	3273	5	1.5
1902	11495	42	3.6	24	2.0	1.9	15	East Ward	4548	9	1.9
							15	West ,,	3444	13	3.7
							12	South ,,	3549	2	0.5
1903	12660	94	7.4	14	1.1	0.7	43	East Ward	5325	11	2.0
							26	West ,,	3705	0	0
							25	South ,,	3630	3	0.8
1904	13755	160	11.6	25	1.8	0.8	42	East Ward	5965	13	2.1
							30	West ,,	4020	4	0.9
							38	South ,,	3770	8	2.1
1905	14465	161	11.1	34	2.3	1.7	44	East Ward	6335	13	2.0
							72	West ,,	4260	12	2.8
							45	South ,,	3870	9	2.3

WHOLE DISTRICT.						FOR EACH WARD.					
Years.	Houses.	Population.	Birth rate.	Death rate at all ages.	Infant Death Rate.		Houses.	Population	Birth Rate.	Death rate at all ages.	Infant death rate
1896	1704	8520	39.5	18.5	186.9	East Ward	684	3420	45.2	19.3	184.6
						West ,,	420	2100	35.1	18.2	170.5
						South ,,	600	3000	43.1	18.1	176.9
1897	1809	8898	44.7	14.4	140.7	East Ward	709	3545	50.2	16.3	118.0
						West ,,	460	2300	34.3	10.4	88.6
						South ,,	640	3200	44.0	14.6	198.5
1898	1915	9277	38.1	15.0	152.5	East Ward	708	3540	44.3	15.8	184.7
						West ,,	524	2620	34.7	13.3	87.9
						South ,,	683	3415	31.0	14.3	160.3
1899	2033	9655	42.6	16.4	140.7	East Ward	718	3590	50.1	16.1	127.7
						West ,,	612	3060	35.2	18.3	194.4
						South ,,	703	3515	35.2	12.5	112.9
1900	2108	10034	39.9	18.9	204.4	East Ward	741	3705	48.8	23.7	243.0
						West ,,	645	3225	33.1	20.4	214.9
						South ,,	722	3610	31.3	9.9	132.7
1901	2177	10412	41.2	15.9	167.8	East Ward	756	3872	43.6	15.3	147.9
						West ,,	625	3173	39 3	17.3	200.0
						South ,,	674	3273	41.2	15.2	162.9
1902	2299	11495	40.5	15.3	173.8	East Ward	906	4548	45.5	14.3	137.2
						West ,,	686	3444	37.4	17.7	237.0
						South ,,	707	3549	34.8	14.1	187.9
1903	2532	12660	39.1	12.1	111.1	East Ward	1065	5325	39.8	10.0	113.2
						West ,,	741	3705	39.4	14.0	83.1
						South ,,	726	3630	37.8	12.3	138.6
1904	2751	13755	37.8	12.6	165.0	East Ward	1193	5965	39.9	11.5	163.8
						West ,,	804	4020	30.3	11.6	180.3
						South ,,	754	3770	42.7	15.6	155.2

Vital Statistics of England and Wales, 1905, for comparison :—

	Birth rate.	Death rate.	Zymotic.	Infant Mortality.
England and Wales	27.2	15.2	1.52	128
76 Great Towns	28.2	15.7	1.88	140
141 Smaller Towns	26.9	14.4	1.50	132
England and Wales less 217 Towns.	26.3	14.9	1.09	113

1905	2893	14465	34.2	11.1	127.2	East Ward	1267	6335	33.3	9.7	113.7
						West ,,	852	4260	37.7	10.5	130.4
						South ,,	774	3870	31.8	12.1	146.3

It will be seen that the Birth-rate in 1896 was 39.5, that is 39½ babies were born for every 1,000 of the population living at Midsummer of that year. In 1897 the Birth-rate is 44.7, that is a gain over 1896 of 5.2, but in 1898 we find a loss of 1.4 as compared with 1896. In 1899 there is an increase of 3.1, but in 1900 the rate is practically the same as 1896.

1896 Birthrate compared with 1897-8-9.

A further comparison of the Birth-rate for each year in the next five years shows a steady decline; thus in 1901 the rate is 41.2 per 1.000, but 1902 is less by .8, and 1903 2.1 less, whilst years 1904 and 1905 show the big drops of 3.4 and 7.0, and lastly there is a difference of 5.3 between 1896 and 1905, that is to say in 1905 five and one-third fewer children were born to every 1,000 of the population than in 1896, when the parish was made an Urban District, so that we are unable to claim that local self-government increases the birth-rate. We shall see by further study of this table where local self-government and sanitary improvements affect the increase of population by a very great reduction in the general Death-rate.

1901 Birthrate compared with 1902-3-4.

It must be borne in mind that taking this country as a whole, independent of local fluctuations, our population is almost entirely derived from the excess of births over deaths—natural increase—this being so the Death-rate becomes a leading factor in the maintenance of a healthy equilibrium between the national gains and losses.

Natural increase excess of births over deaths.

Again taking the general Death-rate, and for the sake of simplicity dividing the decade into two periods of five years, for the first period, 1896-1900, we find in 1896 a Death-rate at all ages of 18.5 per 1,000; 1897 is less by 4.1, 1898 by 3.5, and 1899 by 2.1, whilst in 1900 there is an increase in the rate of 0.4.

Reduction in the death rate at all ages.

In the second period, 1901-1905, a steady decline is noticeable. Thus in 1901 the rate is 15.9 per 1,000, 1902 is less by 0.6, and again years 1903-1904 less by 3.8 and 3.3, whilst in 1905 there is a considerable drop of 4.8. That is to say, taking 1901 rate as our standard of comparison, we find a reduction of an average of 3.1. Practically, the Death-rate of 1901 is reduced by one-fifth, whilst the average reduction on the 1896 Death-rate for the first period is 2.3, or one-eighth.

Turning now to the other great spending department, Infant Mortality, and assuming for the sake of illustrating the figures that 1,000 babies were born in the District in 1896, then 186.9 died before they were one year old, and on the same basis each succeeding year, of course, taking 1896 as our standard of comparison, we reduce the Infant Death-rate thus :—

Reduction in the Infant deathrate

1897 by 46.2 per 1,000 births.
1898 ,, 34.4 ,,
1899 ,, 46.2 ,,
1900 increased by 17.5 per 1,000 births.
1901 reduced by 19.1 per 1,000 births.
1902 ,, 13. ,,
1903 ,, 75.8 ,,
1904 ,, 21.9 ,,
1905 ,, 59.6 ,,

This is the expression of stating the reduction of our Infant Mortality in decimals per 1,000 births, but what actually took place was as follows :—

337 Infants were born in 1896, of whom 63 died under one year.

398	,,	1897	,,	56	,,
354	,,	1898	,,	54	,,
412	,,	1899	,,	58	,,
401	,,	1900	,,	82	,,
429	,,	1901	,,	72	,,
466	,,	1902	,,	81	,,
495	,,	1903	,,	55	,,
521	,,	1904	,,	86	,,
495	,,	1905	,,	63	,,

We further see that during the first five years 1902 Infants were born alive, of whom 313 died under one year of age, equivalent to an average Annual Mortality of 164.5 per 1,000 births, but during the last five years 2,406 were born alive, of whom 357 died under one year, equal to 148.3 per 1,000 births.

Continuing our study of the same figures, Birth-rate, Death-rate, and Infant Mortality for the various Wards or localities, we find the same general results, that is as Sanitary improvements advance a declining Birth-rate pari passu with a declining Death-rate at all ages, and also a declining Infant Death-rate.

The effect of Sanitary Improvement.

Taking the first five years, when the new Sanitary Authority had to grapple with large schemes of Sewerage and Water Supply, when again Scavenging was done by the neighbouring farmers, and often not done for long intervals, Pail Closets and Water Closets not yet introduced, and many other details of Sanitary organization wanting. In the nature of things time must be allowed for such improvements to affect our Vital Statistics and enable us to state in decimals the benefit to the Public Health. We should also expect to find if one Ward received earlier attention in the matter of sanitation than the others that the same Ward should show corresponding good results. In comparing the Ward Statistics we find for the first five years but little difference, but during the last five years, 1901-1905, the East Ward leads with a distinct decrease in the Death-rate at all ages and Infant Death-rate thus :—

Death rate less in the East Ward and why ?

	Death-rate at all Ages.	Infant Death-rate.
1901.—East Ward	15.3	147.9
West Ward	17.3	200.0
South Ward	15.2	162.9
1902.—East Ward	14.3	137.2
West Ward	17.7	217.0
South Ward	14.1	187.9
1903.—East Ward	10.0	113.2
West Ward	14.0	82.1
South Ward	12.3	138.6
1904.—East Ward	11.5	163.8
West Ward	11.6	180.3
South Ward	15.6	155.2
1905.—East Ward	9.7	113.7
West Ward	10.5	130.4
South Ward	12.1	146.3

It is well-known that East Kirkby, or the East Ward, the business centre of the district, is in advance of the other Wards, not only as regards the early adoption of sanitary measures, but also their extent. Here we had first introduced such improvements as scavenging done by the Council's own men and horses, new streets sewered, ventilated, and flushed, old streets kerbed, paved, metalled, and channelled, the early adoption of the lighting of streets, asphalting of backyards, the use of pail closets and water closets instead of vaulted midden privies.

The result has been, as already pointed out, a reduction in the Death-rate in the East Ward as compared with the West and South Wards.

Lastly, the Zymotic incidence—attack-rate and death-rate—presents the same uniformity to the general principles, i.e., improvements will take time to effect a change in the Vital Statistics of a district.

Thus years 1896-1900 the total number of Infectious cases notified were 557, a yearly average of 111.4, whereas 1901-1905 total number 500 cases, average 100.0. Again the Zymotic Death-rate

	(a) Including Diarrhœa.	(b) Not Including Diarrhœa.
1896-1900 average	3.08	1.94
1901-1905 ,,	1.9	1.48

Tables prepared for (a) L.G.B. (b) County Council (c) Home Office (d) Rainfall.

In an Appendix to the Report will be found Tables dealing with :—

(a) Administration of Factory and Workshops Act, 1901.

(b) Houses condemned as unfit for human habitation under the Housing of the Working Classes Act, 1890, Sec. 32.

(c) Summary of Sanitary Work done in the Inspector of Nuisances Department.

(d) Tables I., II., III., IV., and V., prepared for the Local Government Board and County Council.

Vital Statistics for 1905.

One hundred and sixty-two Deaths were registered during the year, equivalent to an Annual Mortality of 11.1 per 1,000 of the population, occurring Quarterly as follows :—

Deaths at all ages.

	Males.	Females.
First Quarter	29	31
Second Quarter	17	17
Third Quarter	20	16
Fourth Quarter	20	12
Totals 1905	86	76
Totals 1904	101	74
Totals 1903	69	85
Totals 1902	90	86

Table II.

Table showing Deaths in Wards:—

	East Ward	West Ward	South Ward
1st Quarter ...	23	18	19
2nd „ ...	12	11	11
3rd „ ...	15	11	10
4th „ ...	14	10	8
Totals 1905 ...	64	50	48
„ 1904 ...	69	47	59
„ 1903 ...	57	52	45
„ 1902 ...	65	61	50
„ 1901 ...	61	55	50
„ 1900 ...	88	66	36
„ 1899 ...	58	56	45
„ 1898 ...	56	35	49
„ 1897 ...	58	24	47

Deaths occuring Quarterly in Wards.

DEATH-RATE FOR THE LAST TEN YEARS.

1896	...	18.5 per 1,000 of the Population.	
1897	...	14.7 „ „	
1898	...	15.0 „ „	
1899	...	16.4 „ „	
1900	...	18.9 „ „	
1901	...	15.9 „ „	
1902	...	15.2 „ „	
1903	...	12.1 „ „	
1904	...	12.6 „ „	
1905	...	11.1 „ „	

Corrected Death-rate according to Census 1901

Four hundred and ninety-five Births were registered, equivalent to an Annual Birth-rate of 34.2 per 1,000 of the population, occurring Quarterly as follows:—

Birthrate.

	Males.	Females.
First Quarter	71	65
Second Quarter	61	66
Third Quarter	66	56
Fourth Quarter	61	49
Totals 1905	259	236
Totals 1904	284	240
Totals 1903	244	251
Totals 1902	239	227
Totals 1901	214	215
Totals 1900	202	199
Totals 1899	219	193
Totals 1898	199	155
Totals 1897	190	208

Table III.

Showing Births in each Ward:—

Births Occurring Quarterly in Wards.

	East Ward.	West Ward.	South Ward.
1st Quarter ...	64	49	23
2nd „ ...	56	31	40
3rd „ ...	45	43	34
4th „ ...	46	38	26
Totals 1905 ...	211	161	123
„ 1904 ...	238	122	161
„ 1903 ...	212	146	137
„ 1902 ...	204	129	133
„ 1901 ...	169	125	135
„ 1900 ...	181	107	113
„ 1899 ...	180	108	124
„ 1898 ...	156	91	106
„ 1897 ...	178	79	141

BIRTH-RATE FOR THE LAST TEN YEARS.

Comparative Birthrate corrected according to Census 1901.

1896	...	39.5	per 1,000.
1897	...	44.7	,,
1898	...	38.1	,,
1899	...	42.6	,,
1900	...	39.9	,,
1901	...	41.2	,,
1902	...	40.4	,,
1903	...	39.1	,,
1904	...	37.8	,,
1905	...	34.2	,,

Sixty-three Deaths were registered under one year of age, equivalent to an Annual Mortality of 127.2 per 1,000 Births, 385.2 per 1,000 total Deaths, and 4.3 per 1,000 of the Population, occurring Quarterly as follows:—

Infant Mortality.

	Males.	Females.
First Quarter	12	10
Second Quarter	4	4
Third Quarter	12	9
Fourth Quarter	7	5
Totals 1905	35	28
Totals 1904	54	32

Table IV.

Showing Deaths under one year of age occurring quarterly in Wards :—

Ward Infant Mortality.

	East Ward.	West Ward.	South Wa-d.
1st Quarter ...	9	6	7
2nd „ ...	2	3	3
3rd „ ...	8	8	5
4th „ ...	5	4	3
Totals 1005 ...	24	21	18
„ 1904 ...	39	22	25
„ 1903 ...	24	12	19
„ 1902 ...	28	28	25
„ 1901 ...	25	25	22
„ 1900 ...	44	23	15
„ 1899 ...	23	21	14
„ 1898 ...	29	8	17
„ 1897 ...	21	7	28
„ 1896 ...	35	12	16

INFANT DEATH-RATE FOR THE LAST TEN YEARS.

Infant deathrate for the last 10 years.

1896	...	185.9 per 1,000 Births.
1897	...	140.7 „
1898	...	152.5 „
1899	...	140.7 „
1900	...	204.4 „
1901	...	167.8 „
1902	...	173.8 „
1903	...	111.1 „
1904	...	165.0 „
1905	...	127.2 „

Average, 1896-1905, 156.9.

Table V.

Notifiable Zymotic Diseases occurring in each month :—

	Scarlet fever	Diptheria	Typhoid Fever	Puerperal Fever	Erysipelas	Smallpox	Membranons Croup	Chickenpox	Typhus Fever
January	6	1	2		2				
February	6		2		2				
March	5	3	5		3				
April	3		4	1	1				
May	5		7		1				
June	3		2		1				
July	11		1	1	2				
August	5		2		2				
September	15	1	2		1				
October	16	1	3		3				
November	6	1	5		1				
December	11	1	3		1				
Totals 1905	92	8	38	2	20				
,, 1904	79	6	18	3	12	3	1	38	
,, 1903	41	4	26	1	17	5			
,, 1902	17		16	3	4				
,, 1901	11	2	19	2	8	1			
,, 1900	23	9	18		15				
,, 1899	163	19	22	5	13		1		
,, 1898	65	5	23		14		1		
,, 1897	27	2	37		11		6		1
,, 1896	12	7	12	2	3				

Zymotic Disease occurring in each Month.

Table VII.

Showing Notifiable Zymotic Diseases occurring in each Ward:—

Notifiable Zymotic Diseases in Wards.

	East Ward	West Ward	South Ward
Diptheria ...	4	4	
Erysipelas ...	6	5	9
Scarlet Fever ...	19	57	16
Typhoid Fever ...	15	5	19
Puerperal Fever ...		1	1
Totals 1905 ...	44	72	45
„ 1904 ...	42	30	88
„ 1903 ...	43	26	25
„ 1902 ...	15	15	12
„ 1901 ...	16	25	2
„ 1900 ...	19	24	22
„ 1899 ...	88	101	34
„ 1898 ...	58	23	27
„ 1897 ...	39	21	24

Table VII.

Showing deaths from Zymotic Diseases occurring in each month :—

	Scarlet fever	Diphtheria	Typhoid Fever	Typhus Fever	Zymotic Enteritis	Puerperal Fever	Whooping Cough	Erysipelas	Measles	Influenza.
January									4	3
February									1	
March									8	
April									1	
May									1	
June					2					
July					1		2		1	
August					4					
September					1		1			
October							1			
November							1			
December							2			
Totals 1905					8		7		16	3
,, 1904		3	3		13	2	3		1	
,, 1903	1	1	6		4			2		
,, 1902			2		1	2	6		13	
,, 1901			1		10	2	3	2	6	
,, 1900	2	1			10	1	3			
,, 1899	5	3	4		12	2	1		6	
,, 1898	3		3		15		4	1	4	
,, 1897	1	1	4	1	6		5			
,, 1896		2	4		7		2		5	

Table VIII.

Showing Deaths from Zymotic Diseases occurring in each Ward:—

Deaths from Zymotic Diseases in Wards.

	East Ward.	West Ward.	South Ward.
Influenza ...	2		1
Measles ...	6	5	5
Whooping Cough ...	2	4	1
Diptheria ...			
Zymotic Enteritis ...	3	3	2
Totals 1905 ...	13	12	9
„ 1904 ...	13	4	8
„ 1903 ...	11		3
„ 1902 ...	9	13	2
„ 1901 ...	10	9	5
„ 1900 ...	9	3	5
„ 1899 ...	10	15	8
„ 1898 ...	13	4	13
„ 1897 ...	7	4	7

Zymotic Death-rate for the last 10 years.

Comparative Zymotic Death-rate corrected according to Census 1901.

1896	... 4.1	per 1,000 of the Population.
1897	... 1.3	„ „
1898	... 1.6	„ „
1899	... 2.1	„ „
1900	... 0.6	„ „
1901	... 1.3	„ „
1902	... 1.9	„ „
1903	... 0.7	" "
1904	... 0.8	„ „
1905	... 1.7	„ „

Average years 1896—1905 1.6

Not including Diarrhœa and Dysentery.

INFANT MORTALITY.

Infant Mortality.

The Infant Death-rate this year, 127.2 per 1,000 Births, is the lowest yet recorded save 1903, when it was 111.1.

The figures in Infant Mortality are always reliable, since they are based on the total Births and are not subject to any error due to fluctuations in the population as the general Death-rate might possibly be.

Again, the Infant is of all human beings the most sensitive to environment, air-space, food and clothing, so that it can be safely asserted that no community is in a flourishing condition whose Infant Mortality is abnormally high. No subject can better illustrate the influence of domestic relations on the life of the off-spring than illegitimacy.

Illegitimacy in relation to Death-rate.

Of the 495 births registered, 13 were illegitimate; five of these died before attaining one year of age, equivalent to a mortality of 384.6 per 1,000 Births, whereas the total Death-rate for legitimate children is only 120.3. That is to say, for every child born in wedlock dying under one year three illegitimate die, and the proportion is often even greater.

For the Infant of tender years the first condition is a healthy home; in slum dwellings, close alleys and contracted backyards, littered with pens and boxes for all sorts of animals, even in semi-rural districts like ours, the child is pale and stunted with flabby muscles and decalcified bones.

Ages and causes of Infant Deaths.

This subject of Infant Mortality is of first importance, and everything calculated to shed light on it is of great value. Let us look at it then under two headings:—(1) Ages at which they died, (2) Causes of death.

(1) Five died under the age of one week, three under two weeks, three under three weeks, and three under four weeks; that is to say 22 per cent. died before they were a month old. Practically half this number died from Premature Birth; antenatal conditions of a complex nature in which the mode of life of the parents and early marriages play an important part, predispose an offspring prematurely born, physiologically imperfectly developed, wanting in stamina and vital resistance.

One often wonders, in studying these Infants, as the vital powers show signs of early exhaustion, what resources civilization has to preserve them. The odd ones that survive this early struggle for existence, often remain weaklings throughout and can scarcely be said to be an acquisition to the race.

But if this is so with reference to the prematures and maldeveloped a far different conclusion must be arrived at in the case of the great majority of Infants dying under one year of age. Of the remaining 49, one died under two months, six under three months, four under four months, five under five months, eight under six months, five under seven months, six under eight months, four under nine months, five under ten months, one under eleven months, and four under twelve months.

Diet in relation to Infant Death-rate.

CAUSES:—(1) Infant Feeding.—Perhaps no cause contributes more to Infant Mortality than improper feeding. Careful enquiry into the method of feeding each of the 63 Infants who died this year under one year of age has elicited the following facts:—Four died within 24 hours of birth, so that in their case diet could scarcely be considered a factor in the causation of their death.

Of the remaining 59, 19 were exclusively fed on their mother's milk, and 40 were hand fed. This gives 32.2 per cent. for the breast fed, against 67.9 per cent. for the hand fed.

Then again, in the 63 families represented here, the total Births were found to be 229, of whom 86 died under one year of age, yielding an Infant Death-rate of 375.5 per 1,000 Births. This, of course, is not an annual rate.

High Infant death-rate in certain families.

Further, in twenty families the total Births were 132, an average of 6.6, and the total Deaths under one year of age were 49, 371.2 per 1,000 Births; but in the thirteen families with the highest Birth-rate the Infant Mortality was found to be alarmingly high,equivalent to 600 per 1,000. This distinctly shows that in certain families, over a long series of years, the Infant Death-rate is high.

Another interesting fact brought out by the inquiry was, that of the 63 mothers, 13 were young wives who lost their first child, and five unmarried women the mothers of illegitimate children, that is 28.5 per cent. were the first and only babies, so that small families contribute to Infant Mortality as well as large ones.

The influence of sanitation on Infant Mortality

(2) Sanitary Surroundings.—In damp, dirty yards, where young Infants of tender years share with dogs, hens, pigeons, and rabbits as playground, the high-walled, dust-laden and

vegetable strewen Courts, Infant Mortality will always be abnormally high. In this connection the value of general Sanitary Improvements can hardly be over-estimated. As bearing on the point, I beg again to refer to the East Ward Infant Death-rate figures.

East Kirkby is more town like in the general formation of its Streets and density of Population than any of the other Wards. Here, too, one finds the casual labourer and out of work gravitating, but Sanitary measures were early carried out in the East Ward, in particular the early advent of the Council's own Scavengers with Carts, Spades and Shovels. The results are obvious in the following Statistics :—

Comparative Infant Vital Statistics in Wards.

1901.—East Ward	147.9	per 1,000 Births.
West Ward	200.0	,,
South Ward	162.9	,,
1902.—East Ward	137.2	,,
West Ward	217.0	,,
South Ward	187.9	,,
1903.—East Ward	113.2	,,
West Ward	82.1	,,
South Ward	138.6	,,
1904.—East Ward	163.8	,,
West Ward	180.3	,,
South Ward	155.2	,,
1905.—East Ward	113.7	,,
West Ward	130.4	,,
South Ward	146.3	,,

Epidemics.

(3) Epidemics which will at all times play an important role in Infant Mortality; but even in epidemics we see the weaklings, ill-fed, ill-housed, and ill-clothed, often the offspring of vicious, ignorant and careless parents, swept away when better favoured children of the same age weather the storm. Still many more of the children of the poor would recover under more favourable conditions. In the crisis of acute diseases, poverty and ignorance terribly weigh them down.

The value of the careful mother in comparison with the careless in the treatment of infants.

How often one sees one or two young children with Pneumonia, Measles, or Whooping Cough, first huddled together in the corner of a cold cheerless kitchen, then when night comes the sick ones are bundled off to share a bed with two or three others—as yet healthy—in a cold, damp-walled

room, where the jerry builder has arranged that the winter rains will find free access along the angles of low pitched roofs and badly cemented walls.

During the long hours of the night none attends to the dying infant and sustains his exhausted powers by frequent feeding, or sees that in his feverish tossing he does not get uncovered and chilled; not till daylight next morning reveals the livid look and laboured breathing are the parents alarmed. A doctor is sent for in great haste, and then they consider with a good conscience that their whole duty has been fulfilled.

How different with the intelligent mother in equally poor circumstances, who at a glance quickly sees that the baby is ill. Everything is instantly thrown aside that the child may be properly attended to. The best bedroom in the house is selected, soon trimmed, aired and heated, and medical aid sent for. Many such mothers are to be found among the working classes of this district, who despite the lack of training are nurses by nature.

Measles.

Measles accounts for seven deaths under one year of age. A severe epidemic of Measles passed over the district in the early part of the year. As always happens, the less robust of the Infants attacked soon succumbed to Pneumonic complications. The West Ward was first attached, and the Elementary Schools were closed from December 10th, 1904, to January 8th, 1905. This outbreak did not extend to either of the other Wards, but early in March the South Ward experienced a similar outbreak, derived from a neighbouring parish, and again the Kirkby Woodhouse Elementary Schools had to be closed from February 24th to March 17th. The gradual extension of the epidemic to the East Ward necessitated the closing of the East Kirkby Infant Schools from March 13th to 31st.

Closing of Day and Sunday Schools.

By the courtesy of their Superintendents, the various Sunday Schools were simultaneously closed, which step aided not a little in stamping out the epidemic.

Whooping Cough.

(5) Whooping Cough.—Four Infants under one year of age died from this disease, which has been prevalent in scattered cases throughout the district for the whole of the year.

Bronchitis, Pneumonia, and other diseases of the respiratory organs.—Twelve deaths, mostly in the first and last quarters of the year. Respiratory Diseases.

It has often been pointed out in these Reports that young children are subject to very great danger, especially after convalescence from acute diseases, by our absurd and irrational way of dressing them with their arms and the most vulnerable parts of their bodies absolutely exposed.

Zymotic Diarrhœa.—Eight deaths, three in the East Ward, three in the West, and two in the South. Diarrhœa, the most fatal of diseases for the hand fed infant, is an infectious disorder prevalent in Summer and Autumn. There are at least two conditions which if we could obtain would greatly reduce the number of deaths from Diarrhœa. The first of these is a pure milk supply, with an improved means of storage in the homes of the working classes. The second, easily accomplished, the asphalting or paving of yards and courts. Infantile Diarrhœa. Suggessions for decreasing Infantile Diarrhœa.

I am afraid that in Kirkby we are far removed in thought as well as practice from the idea of Creches and Infant Incubators, but there is surely nothing extreme in suggesting to you the great utility for the lessening of Infant Mortality of (1) Municipal Milk Depots, now so common in many of our large towns. This would be an incalculable boon in Summer and Autumn; (2) a Children's Hospital Trained Nurse, whose duty would consist of visiting and superintending the rearing of Infants in health and disease. A Children's Hospital trained Nurse.

Such a Nurse would, of course, give her time exclusively to improving the home life of young infants, food, clothing, and above all the education in the duties of motherhood of the scores of women here, mothers of lusty and healthy born children; of whom, alas, one can predict with every assurance that by the end of a year not a few will have succumbed to improper feeding or exposure.

The Children's Nurse should be in constant touch with the less robust, and also the babies of careless and indifferent mothers from their birth.

Precious opportunity for doing good is lost if she is only called in by the parents when the child has already been ill perhaps for several days.

Information regarding births could be easily obtained from the now well organised Certified Midwives and Medical Practitioners of the District.

ZYMOTIC DISEASES.

Scarlet Fever.

SCARLET FEVER.—This disease has been more or less prevalent in scattered cases throughout the district during the whole year, first in the South Ward, then in the East Ward, and lastly in a serious outbreak at Mayfield district of the West Ward. In all, 92 cases were notified, against 79 in 1904.

The outbreat at Mayfield, necessitating the exclusion of all the children from that part of the parish from School from October 1st till October 23rd, 1905, requires a more detailed description.

Origin of the outbreak traced.

Mayfield was free from Scarlatina, when early in August a family came from Sutton to live at 8, Mayfield Street, with three of the children actually suffering from the infection. The cases were mild, the parents obstinate, and the greatest difficulty was experienced in inducing them to practice even the semblance of isolation.

Spread of infection through the carelessness and indifference of the people.

Then, too, the habits of the people lend themselves to the spread of infection, visiting each other absolutely indifferent to the danger of contracting this or any other disease.

As the cases at first were very mild, the parents could not be convinced of the necessity for isolation. Not infrequently have I found, in visiting some of their houses, two or three young children as yet free from the infection sent by the next door neighbour to keep company with the youngsters who were isolated and kept in a room by themselves because suffering from Scarlet Fever.

In a very short time every family in Mayfield with young children had some one ill. Many of the adult members were attacked with virulent sore throats. As the number of Scarlet Fever cases increased the infection underwent a marked change of type, from very mild to severe, with throat angina, and three well developed cases of Post Scarlutina—Diptheria.

Contrary to anticipation, this sharp outbreak cleared up without a single death and but a few trivial sequelae.

Number of cases of Scarlet Fever in 10 years.

In ten years 531 cases of Scarlet Fever were notified, with 12 deaths (see Tables V. and VI.), giving a case mortality of 2.2 per cent., an exceptionally low mortality, lower than the figures of any Scarlet Fever Hospital I have seen published.

Considerable doubt has been thrown lately on the usefulness of Scarlet Fever Hospitals. Statistics show that even in poor localities children can be treated at home with less risk and a lower death roll than at large Isolation Hospitals, and further that the removal of cases to Hospital increases rather than diminishes the number subsequently attacked.

Value of Isolation Hospital doubtful.

That a community like ours will be free from Scarlatina for any length of time is very doubtful. Just think, a large working class population with frequent changes, one family going, another coming, almost a daily occurrence. Then again, during our feasts and wakes whole country sides migrate and over-run the place for a week on end. Strange people from all the parishes in the next two or three counties, hawkers and showmen with their retinue and innumerable vans, carrying in their trail Zymotic Infection from almost every great town in England. And of course we, as a polite people, return their visits.

Difficulty of stamping out Scarlet Fever.

Witness, for instance, our Railway Stations on the occasion of the opening days of the Mansfield, Sutton, and Pinxton Wakes, to say nothing of the great carnival, Nottingham Goose Fair. Have we not beside all this our time honoured Demonstrations, Processions, and Workmen's Excursions, Railway Carriages and Public-Houses, with our Elementary Schools as concentration camps, where the young and highly susceptible part of the community must of necessity come together as if it were to focus this miscellaneous collection of infected germs.

Socialgatherings and Schools in relation to infection.

This also largely applies to most of the Infectious Disorders, but specially to Scarlet Fever, Whooping Cough, Measles, and Influenza.

DIPHTHERIA.—Eight cases were notified, four in the East Ward and four in the West Ward. No deaths.

Diptheria in Wards.

The first case notified in the East Ward was imported. The other three in this Ward occurred in young children under school age, with sanitary surroundings above the average. In the West Ward three of the cases were Post Scarlatinal, occurring during the Mayfield outbreak, and the fourth at a house in Church Street, where the insanitary condition of the yard and house drainage was to all appearance the cause. The circumstances regarding this house have been duly reported to you through the Sanitary Inspector, and is being seen to.

Typhoid Fever in Wards.

TYPHOID FEVER.—Thirty-nine cases were notified and no deaths, against 18 in 1904 with three deaths. The cases were distributed in Wards as follows:—East Ward 15, West Ward 5, and South Ward 19.

Dealing first with the East Ward, a second case occurred in one house with a w.c. This w.c., like most w.c.'s in the district, is not provided with a ventilating shaft and inspection chamber, contrary to your Bye-laws, Section 63 (Sub. Sec. a). Of the remainder, five were in houses with Pail Closets and eight in houses with Midden Privies.

Bye-laws disregarded.

In the West Ward, three cases in houses with Pail Closets and two in houses with Midden Privies.

South Ward, one case in a house with a Slop Closet, nine in four houses with Pail Closets, and nine in nine houses with Midden Privies.

Sanitary surroundings of the Typhoid and personal habits of the inmates.

With few exceptions the sanitary surroundings of what may be justly termed the Typhoid type of houses are extremely defective, and the inmates, corresponding with their environments, are of careless habits, difficult to advise, obstinate in their own opinions, blank unbelievers in every form of infection save such as providence may send as the measure of one's luck.

Condition of backyards and gardens.

They—the inmates—are severe economists in the use of soap and water, and carry infection in their trail as they change from one street to another. Their backyards are always damp by continual irrigation with kitchen slops; notwithstanding the near proximity of properly grated gullies for the reception of kitchen waste; not only so, but the curtilage to the rear of their houses, let it be a court or uncultivated piece of land, is taken up with fowl pens, rabbit hutches, pigeon cotes, vegetable and tea leaves, fish bones, and mussel shells freely scattered about. To keep this class of houses and their occupants in good sanitary condition would need a Sanitary Inspector posted to each house all the year round.

Measures of prevention removal of excreta in Typhoid pails to Furnace

Typhoid cases are carefully isolated, the excreta removed every morning in a special typhoid pail by a servant of the Council, and carried in a closed van to a furnace built for the purpose, where they undergo complete cinderization.

Last year, while commenting in my Annual Report on the wisdom of the Council in detailing off a man to flush the sewers twice weekly, this year this very necessary measure has been

discontinued from June to October owing, I believe, to the scarcity of water. It should be remembered that the drier the season the greater the need for flushing sewers, drains, and catch-pits.

Sewers not regularly flushed

The following figures may represent more graphically the local distribution and sanitary conveniences of those houses from which typhoid cases were notified :—

	(a) W.C.	(b) Pails.	(c) Privies.
East Ward, houses with	1	5	8
West Ward ,,	0	3	2
South Ward ,,	1	4	9

Relative number of cases in (a) w.c.'s (b) pails (c) privies

This illustrates the great advantage of the water carriage system. 48.7 per cent. were in houses supplied with midden privies, 30.7 in houses with pail closets, and only 5.1 per cent. in houses with w.c.'s, one of which was unventilated, the other of the filthy slop type.

Percentages.

The chief increase this year has been in the South Ward, easily traceable to two sources. (1) Early in March seven cases were notified from the village of Nuncargate, mostly in young children, whose milk supply without exception was from the same Dairy. Leaflets were distributed to every house in the village warning the people to boil the milk before use. (2.) After this we find no more cases from Nuncargate till November 6th, when a case occurred in a house with a dilapidated Midden Privy and house waste drainage communicating directly with the sewer untrapped.

The case, a young married woman, was an obscure one, and ill several weeks before being notified. The members of her father's family freely visited her, and her mother and grandmother nursed her. By and by one of the brothers contracted the disease, and, through imperfect means of isolation and extremely careless habits of the inmates, within a fortnight five others were down in this family.

Many of the cases in the other Wards were as already pointed out, due to careless personal habits, coupled with faulty sanitary conditions. Do what we may, the personal equation will remain an important factor in the causation of Typhoid Fever. Not so long ago Sanatarians preached that good and wholesome water supply to every village would banish Typhoid, but so long as we can point to yards, courts, and back gardens as described above, so long will Typhoid Fever remain with us.

Increased supervision of mid-wives.

PUERPERAL FEVER.—Two cases were notified, one in the South Ward and one in the West Ward. No deaths. The increased supervision now exercised by the County Council over Certified Midwives, and the educational value of the Nurse Superintendent's visits to these, Practitioners is calculated in the future to render the lot of the parturient woman much safer.

Measles.

MEASLES.—As already explained, when dealing with Infant Mortality, a severe epidemic of Measles passed over the District in the First Quarter of the Year, resulting in 16 deaths, six in the East Ward, five in the West, and five in the South Ward.

The incidenceof the attack fell entirely on the younger portion of the population, seven deaths under one year, eight deaths one year and under five years, and one death between five and fifteen years. The type of disease was very severe, and often complicated by a fatal pneumonia. Warmth in a room of even temperature is the safest treatment by far for Measles, however mild in its outset. The majority of deaths were directly due to exposure, either in the early stage when pneumonia was found to be present with the development of the rash, or undue exposure during early convalescence.

Whooping Cough

WHOOPING-COUGH accounts for seven deaths, two in the East Ward, four in the West, and one in the South Ward. Four of these were under one year of age, and three between one and five years.

Erysipelas.

ERYSIPELAS.—Twenty cases were notified, six in the East Ward, five in the West, and nine in the South. They were mostly trivial cases, occurring in old and feeble people, and in no case associated with traumatic conditions.

Phthisis.

PHTHISIS and other Tubercular Diseases.—Eight deaths from Phthisis were registered, five in the East Ward, one in the West Ward, and two in the South Ward. Other Tubercular Diseases, three in the West Ward and one in the South Ward.

The following figures will show that in this district Phthisis, like other Zymotic Disease, has yielded to sanitary improvements. For the first five years, 1896-1900, average deaths 8.8, last five years average 7.0 :—

Years.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
Deaths	7	7	6	12	12	7	6	8	6	8

Rate per 1,000 of the Population for each Year.

1896	0.82	,,	,,
1897	0.78	,,	,,
1898	0.64	,,	,,
1899	1.22	,,	,,
1900	1.19	,,	,,
Average	0.93	,,	for the first five years.
1901	0.67	,,	for each year.
1902	0.52	,,	,,
1903	0.63	,,	,,
1904	0.43	,,	,,
1905	0.55	,,	,,
Average	0.56	,,	for the last five years.

Reduction in the Phthisical deathrate.

CONSUMPTION is spread through expectoration, or spitting. This fact can't be too strongly insisted on. One can't help thinking as he watches the freedom with which the Consumptive often spits, both in the house and in the streets, that a radical reform is required in some of our habits, particularly this one of spitting.

How Consumption is spread.

In this way a person suffering from advanced Consumption will throw off millions of the tubercle bacilli in a day. Now these bacilli and spores are amongst the most difficult to destroy of all germs, and can almost live and thrive under any condition. Such, for example, as in the dust on the floor and on the walls of rooms occupied by the Consumptive. Again they, the tubercle bacilli, stick to the cups, saucers, and other vessels used by the Consumptives; clothing, carpeting, and other furniture in the sick room get quickly loaded with them.

Tubercle baccilli live and thrive in dust and mix with food, air, etc.

Being light as air and infinitely small, so that the unaided human eye cannot see them, the bacilli get easily mixed with the solid and liquid foods we take, and also the air we breath, and in this way the healthy by a prolonged exposure to this kind of danger become infected in their turn.

The great thing then to do is to destroy the sputum of the phthisical by either burning it or mixing it with strong disinfectants such as strong solutions of Carbolic Acid 1 in 20 Izal or Creolin. Of these methods burning is by far the best.

Use of disinfectants.

Value of air and light,

Consumptives carefully and intelligently attended to in this way do not spread the disease. Of course, no one should sleep in the same bedroom as a Consumptive, particularly if the case is advanced. Sunlight and free ventilation of the bedroom and other rooms in which such a person lives are an absolute necessity.

Influenza.

INFLUENZA.—Three deaths were registered as due to this complaint. Early in the year Influenza in epidemic form visited the district, and as usual passed through the community with great rapidity. Many people were ill, and a sudden rise took place in the number of deaths, no doubt due to the indirect influence of this treacherous disease.

NON-ZYMOTIC DISEASES.

Heart disease.

HEART DISEASE.—Seven deaths were registered, three in the East Ward, three in the West, and one in the South, against seven last year. Four of this number were aged 70 years and upwards; it is evident that the heart lesion in their case allowed them to live more than the full period of the average man's life.

Enteritis.

ENTERITIS.—Seven deaths were registered from such causes as "Gastro-Enteritis," "Gastritis," and "Enteritis." They are included under the above heading, inasmuch as enquiry showed that they were not Diarrhœal in origin. Two of the cases were under one year of age, two were one to five years, two 25 to 65 years, and one overe 65 years.

Bronchitis and Pneumonia.

BRONCHITIS, PNEUMONIA, PLEURISY, and other Diseases of the Respiratory Organs account for 32 deaths. East Ward 11, West Ward 10, and South Ward 11. Twelve of these were infants under one year of age, 12 between one and five years, two 15 to 25 years, two 25 to 65 years, and four were 65 years and upwards.

ACCIDENTS AND SUICIDES.—Five deaths were certified as due to Accidents and one to Suicide. On these six inquests were held. Verdicts:—

Accidents.

3 "Accidentally Killed."
1 "Burnt."
1 "Scalded."
1 "Suicide."

CANCER.—Six cases were certified as having died from this disease, two in the East Ward, three in the West, and one in the South. Cancer.

The following figures show the deaths registered from malignant diseases since 1896 :—

Years.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
Deaths	2	4	0	3	4	3	0	5	6	6

Two deaths were regeistered from Alcoholism, one from Venereal Disease, three from Nephritis, two from Meningitis, and from all other causes 40, distributed in Wards as follows : East Ward 21, West Ward 13, and South Ward 14. Deaths from Alcoholism, etc.

Having thus far considered almost exclusively Vital Statistics, Diseases, their variations, distributions, and incidences, there yet remains for consideration a variety of subjects of first-class importance, such as bad streets, unventilated sewers, impure milk supply, etc., etc., or what may not be inaptly termed the morbid anatomy of Public Health. Morbid anatomy of Public Health

In last year's Report, on Page 33, reference is made to the Private Streets Works Act, 1892, and a list of streets given completed under the Act and taken over by the Council. This year, again in the East Ward, St. Thomas' Avenue, St. John Street, Oxford Street, and Beulah Road have been completed and taken over, but no further progress in this direction has taken place in either the West or South Wards; although the following Private Streets are still waiting to be dealt with, some of which are exceedingly bad :—West Ward : Bentinck Town, Princes Street, Mayfield Street Hartley Road, and Southwell Lane. Thesee last two are mere swamps in wet weather. South Ward : Sansome Street, Fox Street, Reform Street, Bentinck Street, and James Street. The majority of these South Ward Streets are also of the bog variety and urgently require your attention. Arrears.

SEWAGE FARM.—The Park Lane outfall has been substantially improved this year by the addition of three new filter beds and one very large settling tank. To one of the primary filter beds an automatic distributing arm has been provided of a very serviceable kind, invented by the Council's capable caretaker, Mr. I. Moss. Portland Row Sewage Works are also working well. Sewage Farms, new beds added.

Over-crowding the schools in abated.

The over-crowding reported last year as existing in the Elementary Schools has to a certain extent been relieved by the temporary premises provided for the younger children at East Kirkby and Kirkby Woodhouse, but the Kirkby Schools are still in statu quo.

Portland Row dirty towels and drinking vessels.

May I in this connection draw the Managers attention to the need of object lessons in cleanliness in at least one of their Schools. Late in the year, I had occasion to visit Portland Row Infants' School—a rather out of the way place. There were 82 scholars on the roll—present 62. In the cloak room there was a small dirty little piece of canvas, described as a towel, hanging on a roller. The School Mistress informed me that the Caretaker was responsible for this article, and that that worthy supplied a clean one every Monday morning. Three drinking cups were suspended on the water taps, but the cups and basins underneath were coated internally with a thick incrustation of grit or some other precipitate, so thick that when one drew his finger along it left a deep track revealing in pleasing contrast the white enamel of the vessels. Having said to much on this subject last year, I leave the simple facts to your consideration.

Unventilated closets & sewers.

On Pages 35-36, 1904 Report, the filthy slop closet is condemned and attention is drawn to the necessity for proper ventilation of sewers at given points in the district, and further that, according to your Bye-laws, every w.c. should be provided with a separate ventilator and inspection chamber. The slop closets were forthwith converted into regular wash down w.c.'s, but nothing has been done so far to remedy the evil of unventilated sewers and water closets.

Drain-testing not carried out.

Drain testing, another matter of very great importance to which your attention was drawn in last year's Report, but nothing done. When careless workmen and builders in a hurry lay down faulty drain pipes—their connections and seals never tested—nothing further is known till suspicion is aroused by continued illness in the house. Here very aptly the old proverb, "Prevention is better than cure," suggests itself. Another requirement not yet supplied, namely, Steam Disinfector.

IMPROVED MILK SUPPLY.—In order to better supervise the Milk Supply of the District the Council has resolved to put in force the powers conferred on Sanitary Authorities under the Contagious Disease (Animals) Act, 1886, and Dairy, Cowsheds and Milk Shop Order, 1886.

Regulations for Milk supply.

In Mid-Summer regulations were drawn up (a) for prescribing and regulating the Lighting, Ventilating, Cleansing, Drainage, and Water Supply of Cowsheds and Dairies in the occupation of persons following the trade of Cowkeepers or Dairymen; (b) for securing the cleanliness of Milk Stores, Milk Shops, and Milk Vessels used for containing milk for sale by persons following the trade of Cowkeepers, Dairymen, or Purveyors of Milk; (c) prescribing precautions to be taken by Purveyors of Milk and Persons selling Milk by retail against infection or contamination. These Regulations have now been for some time in the hands of the Local Government Board waiting their sanction.

Bye-laws for cowsheds and dairies

Any steps calculated to improve the Milk Supply of this District is of enormous importance to the community. As often remarked in these Reports, I believe our disorganised Milk Supply to be a great menace to the Public Health.

Present milk supply a danger to public health

LINDLEY LANE.—Report 1896, Page 8. That is ten long years ago. This Lane is reported as follows:—"The piece of land belonging to the Midland Railway Company in the angle between the Railway and Lindley Lane, and having the County Council Highway as its base, forms a stagnant filthy bog, which during rain storms overflows the Lane." Very little has been done to remedy this nuisance. So also King Street and Queen Street at the South end of Lindley Lane require to be properly sewered. At present their sewerage system is carried along their back gardens and actually under some of the houses. There is no defence of this state of things. The present arrangement should cease and new sewers should be made in the streets and the house connections joined direct.

State of Lindley's Lane.

RECREATION GROUNDS.—We are still as a community without lungs and gymnastia where the young can without let or hindrance romp, rove, and jump. In recent years the question of physical degeneration has received considerable

Need for a recreation ground

attention, and the value of physical drill and gymnastics emphasised. For the young and growing of our race no drill or exexrcise equals playing in the open field, where every muscular contraction and rhythmic movement of veins and arteries act in response to agreeable cerebral impressions. Of what physiological value are the set figures of the schoolyard and dingy barrack square, where the dreaded sentorian commands of the drill master or mistress produce blanched faces and contracted capillaries in the nervous child. Compared with the joy and vivacity of running, jumping, and skipping in the open air or country lane, where the tints and shades of Summer and Autumn scenery combine with pure air to infuse new life and energy into children reared in damp, dirty yards and ill-ventilated homes.

Cricket and football are excellent in their way for the few who practice, but for the thousands as here who are simply lookers on there is no exercise, rather a good deal of shivering by long stands in not infrequently cold and wet weather.

INSPECTOR OF NUISANCE'S DEPARTMENT.

Work done in Inspector of Nuisance's Department.

A good deal of useful work has been done during the year in this department. From a Summary in the Appendix it will be seen that this excellent official has brought under your notice 314 cases, and except in three instances every one of these nuisances were remedied with but little loss of tmie.

Lack of bedroom accommodation at Portland Row.

The exceptions are:—(1) Portland Row, bedroom accommodation is deficient in these houses, very seriously felt when Infectious disease occurs in any of them. When a family, as here, has only two small bedrooms, isolation is impossible.

As an example of what can be done with houses of this class, I should like to point out to you the alterations effected in the tenements known as "Zulu Row," East Kirkby. Originally built like Portland Row, without sculleries and with two small bedrooms, but this year, through the exertions of the Sanitary Inspector and myself, the owner built new sculleries to each house, with an additional bedroom above, also drained, channelled, and blue bricked the yards to their back.

(2) Mackinley's Cowshed. The improvements carried out here are very incomplete. When your new regulations for Milk Shops and Dairies are confirmed, you will have power to insist on further improvements to these premises.

(3) Wilson's Slaughter-house, Main Road, Annesley Woodhouse. The manure hole and pigsty are too near to the Slaughter-house and should be removed. The floor of the Slaughter-house should be blue bricked, the yard asphalted and drained.

NEW MARKET.—This piece of ground would be much improved by asphalting, and on no account should be used as a rendezvous for showmen, their vans, and all the other paraphernalia of "Wakes Week."

The association of this unsavory crowd with the food supply of the people is most uninviting. Once, if not twice, this Autumn (for we keep the old and new "Wakes") the Market stand was used for several days as camping ground for an army of showmen and their miscellaneous following. When we reflect on the habits of these people going from one carnival to another, often carrying Infection in their trail, settling down for nearly a week in the Market Place with no sanitary conveniences for man or animal, on their departure leaving the place literally covered all over with their refuse and filth, to be in turn within say 12 hours covered with stands for the sale of every form of edibles, we are justly entitled to call the association not only uninviting, but unclean.

The market should not be let to showmen.

THE FACTORY AND WORKSHOP ACT, 1901 (S. 132).

Medical Officers of Health are required to report specifically to their Councils on the administration of this Act.

A list of Factories, Workshops and Workplaces is given in the Appendix with a Summary of Visits and Reports in tabular form. You will see that there are within your District four Factories, six Workshops, and seven Workplaces. To these over 30 official visits were paid during the year by the Sanitary Inspector and myself. You will further observe that at one Factory improvement in sanitary conveniences are suggested, at another they are required, and the thing is being done, to provide separate sanitary accommodation for male and female workers, and at a third—Ærated Water Works—the question of smoke nuisance and frequent removal of manure heap is being enforced.

Factory and Workshop Act, 1901.

At one of the Workshops the owner is required to remove a fowl pen and keep the premises generally cleaner. In every other respect, such as air space, fire escape, ventilation, and drainage, things are in a satisfactory condition. Infectious Disease—Scarlet Fever—was notified from seven houses used as domestic Workshops. Work was prohibited for a specified time and the articles disinfected.

May I again thank you, gentlemen, on behalf of the Sanitary Officials, for your consideration and courtesy during the year.

I remain,

Your obedient servant,

J. Mackenzie.

APPENDIX.

Summary of Work done in the Inspector of Nuisances' Department during the year 1905 :—

Summary of Work done in the Inspector of Nuisances' Department during the year 1905 :—

	Inspections made	Informal notices served by Insp't'r.	Legal Notices by authority of the Council	Nuisances abated after notice.	In statu quo.
Dwelling Houses :—					
Insanitary ...	32	32	1		32
Overcrowding ...	3	3	1	3	
Ashpits & Privies	66	66		66	
Defective Pail Closets	67	67		67	
Defective w.c.'s...	39	39		39	
House Drainage :—					
Defective Traps & no connections	100	100		100	
Water Supply ..	1	1			1
Offensive trades & other nuisances	6	6	2	4	2

The foregoing cases were submitted to the Council monthly as follows :—

Jan.	Feb.	Mar.	April	May	June
17	23	23	23	15	27
July	Aug.	Sept.	Oct.	Nov.	Dec.
35	29	31	19	27	34

Houses disinfected after infectious diseases ... 120

Schools " " " ... 5

Vital Statistics of separate Localities in 1905 and previous years.

YEAR.					East Ward.				West Ward.				South Ward.			
	Population estimated to middle of each year.	Births registered.	Deaths at all ages	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
1896	9520	337	159	96		120	41	35		60	26	12		61	26	16
1897	8898	398	129	56		178	58	21		79	24	7		141	47	28
1898	9277	354	139	54		157	56	29		91	35	8		106	49	17
1899	9655	412	158	58		180	58	23		108	56	21		124	45	14
1900	10034	401	190	82		181	88	44		107	66	23		113	36	15
1901	10412	429	166	72	3912	169	61	25	3193	125	55	25	3307	135	50	22
1902	11495	466	180	81	4530	204	65	28	3430	129	61	28	3535	133	50	25
1903	12660	495	155	55	5325	212	57	24	3705	146	52	12	3630	137	45	19
1904	13755	521	177	86	5965	238	70	39	4020	122	47	22	3770	161	60	25
Average 1906 to 1904	105228	423 6	160.7	71.1	2192.4	182.1	61.5	29.7	1594.2	107.4	46.8	17.5	1582.4	12£.4	46.3	20.1
1905	14465	495	162	63	6435	211	64	24	4260	161	50	21	3870	123	48	18

Vital Statistics of Whole District during 1905 and previous years.

Year	Population estimatad to middle of each year	Births		Deaths undet 1 year of age		Deaths at all ages.		Deaths in Public Institutions.	Deaths of non-residents registered in the district	Deaths of residents registered beyond district	Deaths at all ages. Nett	
		Number	Rate	Number	Rate per 1000 births registered	Number	Rate				Number	Rate
1896	8520	337	39.5	96	284.8	158	18.5		2	3	159	18.5
1897	8898	398	44.7	56	140.7	129	14.4		1	1	129	14.4
1898	9277	354	38.1	54	152.5	140	15.0		2	1	139	15.8
1899	9655	412	42.6	58	140.7	159	16.4		2	1	158	16 7
1900	10034	401	39.9	82	204.4	190	18,9		2	2	190	18.9
1901	10412	429	41.2	72	167.8	166	15.9				166	15.9
1902	11495	466	40.5	81	173.8	176	15.3			4	180	15.6
1903	12660	495	39.0	55	111.1	154	12.1	2		1	155	12.1
1904	13755	521	37.8	86	165.0	175	12.6			2	177	12.8
Averages for 1906-1904	105228	423.6	40.3	71'1	171.2	160.7	15.4	0.2	1.0	1.6	161.3	15.6
1905	14465	495	34.2	63	127.2	154	10.6			8	162	11.1

Cases of Infectious Diseases Notified during the Year 1905.

NOTIFIABLE DISEASE.	Cases Notified tn Whole District.						Total cases notified in each locality.		
	At all ages.	At Ages—Years.							
		1 to 5	5 to 15	15to25	25to65	65 and up.	East Ward.	West Ward.	South Ward.
Diphtheria ...	8	3	5		2		4	4	
Erysipelas ...	20			3	15	2	6	5	9
Scarlet Fever ...	92	22	60	3	7		19	57	16
Enteric Fever ..	39	6	14	7	12		15	5	19
Puerperal Fever	2				2			1	1
Totals ...	161	31	77	13	38	2	44	72	45

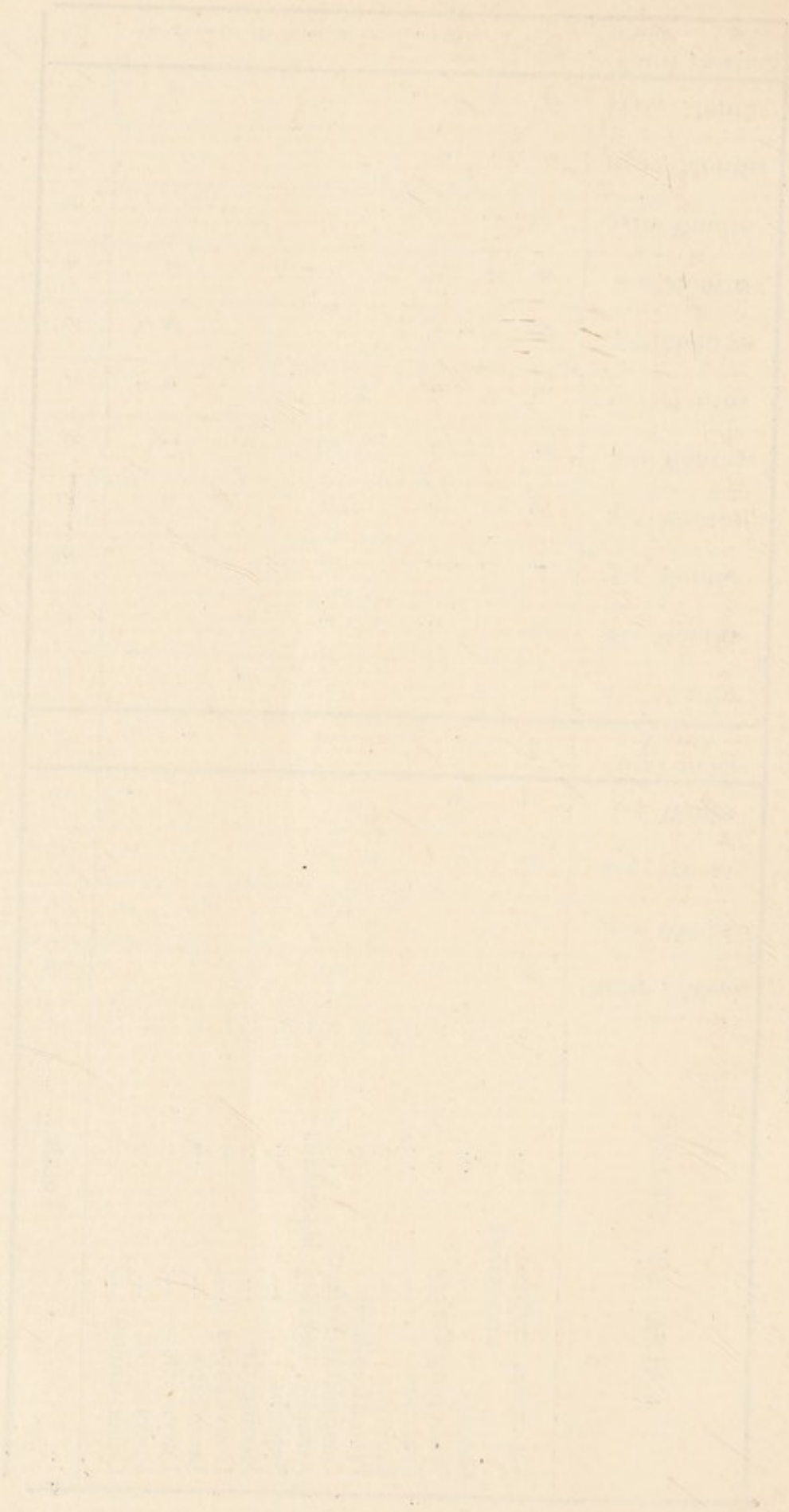
NAME AND SITUATION WORKSHOP.	NAME AND ADDRESS OF OWMER.	WORK CARRIED ON.	NUMBER OF WORKERS	NO. OF ROOMS.	CUBIC SPACE.	WATER CLOSETS. M	WATER CLOSETS. F	DATE OF INSPCTION	SUMMARY OF REPORTS
FACTORIES—					cubic ft.			Jan. 10	
Hosiery Factory, Nuncargate	Geo Cook, Esq, Nuncargate, Kirkby, Notts.	Hosiery	19	2	11035	1		Mar. 1 Dec. 9	Only males employed Space and ventilation good.
Station Street, East Kirkby	Walker & Sons, Station St., East Kirkby, Notts	do.	71	2	63000	3	3	Mar. 3 Oct. 9	Further improvements in sanitary conveniences suggested
Kirkby Manufacturing Co.s Prospect Street, East Kirkby	Kirkby Manufacturing Co, Prospect Street, East Kirkby, Notts.	do.	29	4	31360			Mar. 3 Oct. 9	To have separate closets for male nnd female workers
Aerated Water Works. The Park, Kirkby	Hardy & Martin, The Park, Kirkby, Notts.	Areated Waters		2	16800			Mar. 3 June 10 Oct. 9	Manure heap should be covered in, too near and seldom removed
Workshops-Bakehouses									
Low Moor Road, East Kirkby	T. Wilson, Dast Kirkby	Baking	3	2	1232	1		Mar. 3 Oct. 9	Ventilation & space good
The Hill, Kirkl y	J. Bond, the Hill. Kirkby	do.	1	1	1032	One Pail		Feb. 17 Oct. 9	Notice to remove fowl pen as too near, and keep premises cleaner.
Diamond Avenue, East Kirkby	E. Wilbourn, East Kirkby	do.	2	2	1040	do.		Sept. 10	
Prospect Street, East Kirkby	R. Bains, Prospect St., East Kirkby, Notts.	do.	1	1	1233	do.		Feb. 2 Oct. 9	Ventilation and premises in good condition
Low Moor Road, East Kirkby	J. Burton & Sons, East Kirkby, Notts.	do.	1	1	1452	do.		Mar. 3 Oct. 9	ditto.
The Hill, Kirkby	Co-operative Society, Kirkby, Notts.	do.	3	3	1675	do.		Feb. 2 Sept. 10	ditto.
WORKPLACES —									
Tailoring, Station Street East Kirkby	Fred King, Station Street East Kirkby	Tailoring	2	1	1040	do.		Feb. 9	ditto.
DRESSMAKING —									
Gladstone Street, East Kirkby	Mrs. Scothern, East Kirkby	Dressmking		1	1680	One Privy		Feb. 9 Oct. 1	ditto.
Diamond Avenue	Miss Chadburn, East Kirkby	do.		1	1321	do.		Feb. 9 Sept. 10	ditto.
Victoria Road	Miss Sharley, Kirkby	do.	3	1	1496	do.		Feb 9 Oct. 10	ditto.
Fisher Street	J. Beet, Fisher Street, Kirkby	do.	3	1	768	do.		Feb. 9	
Cemetery Road	Miss Saywell, East Kirkby	do.	3	1	1152	do.		Oct. 10	ditto.
Low Moor Road	Miss Hoyland. East Kirkby	do.		1	1014	do.		Feb. 9	ditto

Causes of, and Ages at Death during year 1905.

Causes of Death.	Deaths in or belonging to District at subjoined ages.							Deaths at all age in localities.		
	All ages.	Under 1.	1 and under 5.	5 and under 15	15 and under 25	25 and under 65	65 and upwards.	East Ward	West Ward	South Ward
Measles	16	7	8	1				6	5	5
Whooping Cough	7	4	3					2	4	1
Epidemic Influenza	3	1					2	3		
Diarrhœa	8	8						3	3	2
Enteritis	7	2	2		2	2	1	2	2	3
Phthisis	8		1		1	5		5	1	2
Other tubercular diseases	4		2			1			3	1
Cancer	6					5	1	2	3	1
Bronchitis	7	3	1		2	0	3	1	3	3
Pneumonia	24	9	11			2	0	10	6	8
Pleurisy	1						1		1	
Alcoholism	2					1	1	1	1	
Veneral diseases	1	1						1		
Premature Birth	2	2							1	1
Diseases and Accidents of parturition ...	1					1				1
Heart Disease	8					4	4	4	3	1
Accidents	6		1	1		4		4	1	1
Suicides	1					1			1	
Debility	5	5						2		3
Nephritis	3					2	1	1	2	
Marasmus	2	1			1			1	1	
All other causes	40	20	2	1		4	13	16	9	15
All causes ...	162	63	31	3	6	32	27	64	50	48

Infant Mortality during the Year 1905.

CAUSE OF DEATH.	Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month.	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under 1 year.
All causes, certified	5	3	3	3	14	1	6	4	5	8	5	6	4	4	1	4	62
,, uncertified														1			1
Measles								1					1	3		2	7
Whooping Cough				2	2			1				1					4
Diarrhœa							1	1	1	2	1	1			1		8
Enteritis								1								1	2
Premature Birth			1		6		1										7
Congenital Defects	5	1			1												1
Atrophy, Debility, Marasmus ...			1		2		1	1	2	3							8
Syphilis													1				1
Meningitis													1				1
Convulsions						1	3			2							6
Bronchitis														2			3
Laryngitis		1			1												1
Pneumonia									2	1	2	2	1			1	9
Other Causes		1	1	1	3						1	1					5
Totals...	5	3	3	3	14	1	6	5	5	8	5	5	4	5	1	4	63



List of Houses condemned as unfit for human habitation from several causes 1902-05.

YEAR.	East Ward.	West Ward.	South Ward.	RESULTS.	
				In statu quo.	Remedied.
1902	7	25	61		93
1903	14		49	49	14
1904			49	49	
1905			49	49	