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NORTH RIDING OF YORKSHIRE.

Report of the Medical Officer of Health for the year 1913.

To the County Council of the North Riding of Yorkshire.

Mr. Chairman, my Lords, and Gentlemen,

I have the honour of presenting to you my Report on the health and sanitary condition of the Riding for the year 1913.

The Riding consists of 18 Urban Districts, with a population at the 1911 Census of 137,975, the estimated population at the middle of 1913 was 145,311, against 143,249 at the middle of 1912, giving an increase of 2,062 on the year, against an increase of 6,078 from 1911 to 1912, when for the first time the Borough of Richmond with a population of 3,934 was included. And 21 Rural Districts with a population at the 1911 Census of 136,601, the estimated population at the middle of 1913 was 136,329, against 136,273 at the middle of 1912, giving an increase of 56 on the year, against an increase of 228 from 1911 to 1912. The increase of the whole Riding on the year 1912 is 2,118, against an increase of 6,306 from the year 1911 to 1912. The area of the Riding is 1,358,101 acres, and the total population estimated at the middle of 1913, 281,640, equal to 0.207 persons per acre.

The Helmsley Rural District is divided into two Districts, making a total of 40 reports for consideration.

During the year Dr. Robertson, Pickering Urban, died, and is succeeded by Dr. Kirk; Dr. Hime, Aysgarth, resigned, and is succeeded by Dr. Dunbar; Dr. Colby, Malton Rural, died, and is succeeded by Dr. Shaw; and Dr. Devey, Reeth, resigned, being succeeded by Dr. Want.

Under the Scarborough Order 1913, three hundred and four and a quarter acres with a population of twenty-three persons were transferred from the Scalby Urban District to the Municipal Borough of Scarborough.

Under the Middlesbrough Order 1913, 1,465 acres with a population of 15,143 persons have been transferred from the County to the County Borough of Middlesbrough, including North Ormesby in the Urban District of Ormesby with a population of 14,213, the Parish of Linthorpe with a population of 420, and part of the Parish of Marton, in which is situated the Middlesbrough Borough Asylum, with a population of 510, in the Rural District of Middlesbrough. The portion of the Ormesby Urban District with an area of 1,999 acres which has not been transferred to Middlesbrough is added to the Middlesbrough Rural District.

During the year there were registered 6,751 births; 4,062 Urban and 2,689 Rural, against 6,876 in 1912, giving an Urban Birth Rate of 27.95 per thousand and a Rural Birth Rate of 19.72 per thousand, against 28.94 and 20.03 respectively for 1912.

The Urban Birth Rate is the lowest recorded, it is 0.99 lower than that for 1912, 3.23 lower than the average for the previous ten years for the County, 1.85 higher than the average for England and Wales for the same period, and 4.05 higher than the rate for England and Wales in 1913.

The Rural Birth Rate is the lowest on record, it is 0.31 lower than that for 1912, 2.63 lower than the average for the previous ten years for the County, 6.38 lower than the average for England and Wales for the same period, and 4.18 lower than the rate for England and Wales in 1913. There is a decrease of 84 Urban Births and a decrease of 41 Rural Births on the year 1912, total decrease 125, against a decrease of 225 from the year 1911 to 1912.

Of deaths there were registered 3,911, 2,102 Urban and 1,809 Rural, against 3,877 in 1912, giving an Urban Death Rate of 14.46 per thousand, and a Rural Death Rate of 13.26 per thousand, against 14.84 and 12.84 respectively for 1912.

The Urban Death Rate is 0.38 lower than that for 1912, 1.60 lower than the average for the previous ten years for the County, 0.24 lower than the average for England and Wales for the same period, and 0.76 higher than the rate for England and Wales in 1913.

The Rural Death Rate is 0.42 higher than that for 1912, 0.36 lower than the average for the previous ten years for the County, 1.44 lower than the average for England and Wales for the same period, and 0.44 lower than the rate for England and Wales in 1913. There is a decrease of 25 Urban Deaths and an increase of 59 Rural Deaths on the year 1912, total increase 34, against a decrease of 163 from the year 1911 to 1912.

Of deaths due to the "Chief Epidemic Diseases" there were 298, 220 Urban and 78 Rural, against 314, 246 Urban and 68 Rural, giving an Urban Death Rate from these diseases of 1.51 per thousand, and a Rural Death Rate of 0.57 per thousand, against 1.71 and 0.49 respectively in 1912.

The Urban Rate is 0.20 lower than that for 1912, 0.34 lower than the average for the previous ten years for the County, 0.10 higher than that for England and Wales for the same period, and 0.31 higher than the rate for England and Wales in 1913.

The Rural Rate is 0.08 higher than that for 1912, 0.06 lower than the average for the previous ten years for the County, 0.84 lower than that for England and Wales for the same period, and 0.63 lower than the rate for England and Wales in 1913.

Of deaths due to Phthisis there were 206, against 207 in 1912, giving a Phthisical Death Rate of 0.73 per thousand against 0.74 in 1912. This rate is the lowest recorded.

Of deaths of Infants under one year of age there were 619, against 634 in 1912, and 741 in 1911, giving an Infantile Mortality per one thousand births registered of 91.68, against 92.20 and 105.36 respectively for 1912 and 1911. This is the lowest rate recorded. That for England and Wales in 1913 was 109.0

Phthisis Death Rate and Infantile Mortality per one thousand Births, 1899-1913.

PHTHISIS DEATH RATE.			INFANTILE MORTALITY.	
1899	...	1.08	153.10	
1900	...	0.87	134.00	
1901	...	0.86	124.60	
1902	...	0.79	112.31	
1903	...	0.88	122.16	
1904	...	0.78	126.91	
1905	...	0.94	116.93	
1906	...	0.91	127.68	
1907	...	0.87	113.16	
1908	...	0.84	118.05	
1909	...	0.76	105.95	
1910	...	0.74	110.44	
1911	...	0.83	105.36	
1912	...	0.74	92.20	
1913	...	0.73	91.68	

DEATHS FROM THE CHIEF EPIDEMIC DISEASES.

				TOTAL.		Rate per thousand.	
				1913.	1912.	1913.	1912.
	Urban.	Rural.					
Small Pox	...	...	...	...	...	...	...
Measles	33	5	...	38	96	0.13	0.34
Scarlet Fever	23	13	...	36	23	0.12	0.08
Diphtheria and Membranous Croup	32	20	...	52	73	0.18	0.26
Whooping Cough	18	12	...	30	47	0.10	0.16
Typhoid Fever	5	5	...	10	21	0.03	0.07
Continued Fever	...	...	...	...	...	...	...
Diarrhoea and Enteritis	109	23	...	132	54	0.46	0.19
Total	220	78	...	298	314		

Table showing the variations in the number of Deaths from the Chief Epidemic Diseases from the year 1912.

INCREASE—Scarlet Fever 13, Diarrhoea and Enteritis 78.

DECREASE—Measles 58, Diphtheria and Membranous Croup 21, Whooping Cough 17, Typhoid Fever 11.

TABLE OF RATES, 1889-1913.

		Birth Rate.		Death Rate.		Death Rate of Chief Epidemic Diseases.	
		Urban.	Rural.	Urban.	Rural.	Urban.	Rural.
1889.	North Riding		24.88		14.71		0.4
	England & Wales		30.5		17.9		0.1
1890.	North Riding	28.37	24.06	15.81	15.31	1.89	0.91
	England & Wales		30.5		19.5		2.17
1891.	North Riding	37.5	27.21	16.0	17.68	1.63	0.95
	England & Wales		31.4		20.2		1.83
1892.	North Riding	31.8	25.18	16.50	15.81	1.43	0.77
	England & Wales		30.5		19.0		1.90
1893.	North Riding	31.01	25.70	16.94	16.93	2.30	1.44
	England & Wales		20.8		19.2		2.47
1894.	North Riding	28.97	23.89	14.09	14.56	0.89	0.79
	England & Wales		29.6		16.6		1.76
1895.	North Riding	30.30	25.64	16.09	15.37	2.05	0.83
	England & Wales		30.3		18.7		2.14
1896.	North Riding	30.65	24.57	15.82	14.19	2.00	0.75
	England & Wales		29.7		17.1		2.18
1897.	North Riding	30.30	25.00	16.32	14.83	1.77	0.88
	England & Wales		29.7		17.4		2.15
1898.	North Riding	31.21	23.41	15.86	14.70	1.62	0.61
	England & Wales		29.4		17.6		2.22
1899.	North Riding	30.31	21.14	17.37	14.82	1.93	1.11
	England & Wales		29.3		18.3		2.21
1900.	North Riding	31.66	22.25	17.60	15.23	1.78	0.70
	England & Wales		28.9		18.3		2.00
1901.	North Riding	32.79	23.42	17.02	14.23	1.49	0.97
	England & Wales		28.5		16.9		2.05
1902.	North Riding	31.92	24.12	15.96	14.06	1.58	0.47
	England & Wales		28.6		16.3		1.64
1903.	North Riding	32.53	23.02	16.84	13.78	1.66	0.55
	England & Wales		28.4		15.4		1.46
1904.	North Riding	32.24	22.85	17.07	15.52	1.92	0.90
	England & Wales		27.9		16.2		1.94
1905.	North Riding	31.85	23.30	16.99	14.69	1.74	0.46
	England & Wales		27.2		15.2		1.52
1906.	North Riding	32.64	22.63	16.88	14.17	2.21	0.78
	England & Wales		27.0		15.4		1.73
1907.	North Riding	30.65	21.73	16.72	13.72	1.72	0.68
	England & Wales		26.3		15.0		1.26
1908.	North Riding	31.85	23.35	15.67	13.64	1.90	0.67
	England & Wales		26.5		14.7		1.26
1909.	North Riding	31.16	22.34	14.45	12.78	1.46	0.64
	England & Wales		25.6		14.5		1.12
1910.	North Riding	30.31	22.58	14.12	12.65	1.32	0.46
	England & Wales		24.8		13.4		0.99
1911.	North Riding	29.72	21.72	17.08	12.46	2.87	0.73
	England & Wales		24.4		14.6		1.88
1912.	North Riding	28.94	20.03	14.84	12.84	1.71	0.49
	England & Wales		23.8		13.3		0.98
Average 1903-1912—							
	North Riding	31.18	22.35	16.06	13.62	1.85	0.63
	England & Wales		26.1		14.7		1.41
1913.	North Riding	27.95	19.72	14.46	13.26	1.51	0.57
	England & Wales		23.9		13.7		1.20

The Birth Rate in England and Wales in 1913 was 23·9 per thousand of the population, which is 0·1 higher than the rate in 1912, which is the lowest on record.

The Death Rate in 1913 was 13·7 per thousand, which is 0·4 higher than the rate in 1912, and with the exception of that year and 1910 is the lowest on record.

The Rate of Mortality among infants under one year of age to 1000 births registered was 109, which is 14 higher than the rate in 1912, which was the lowest on record.

The Death Rate from the Chief Epidemic Diseases was 1·20 per thousand, which is 0·22 higher than the rate in 1912, and with the exception of that year and 1910 is the lowest on record.

Number of cases of Notifiable Diseases reported:—

	Urban.	Rural	Total.		Attack rate per thousand.	
			1913.	1912.	1913.	1912.
Small Pox ...	—	—	—	1	—	—
Scarlet Fever ...	781	356	1137	1246	4·03	4·46
Diphtheria and Mem- branous Croup ...	332	161	493	519	1·75	1·85
Typhoid Fever ...	31	23	54	125	0·19	0·44
Continued Fever ...	2	1	3	4	—	—
Erysipelas ...	74	56	130	141	0·49	0·50
Puerperal Fever ...	—	1	1	4	—	0·01
Pulmonary Tuberculosis	182	126	308	399	1·09	1·42
Other Tubercular Disease	116	47	163	—	0·57	—
TOTAL ...	1518	771	2289	2489		

INCREASE.

DECREASE.—Small Pox 1, Scarlet Fever 109, Diphtheria and Membranous Croup 26, Typhoid Fever 71, Continued Fever 1, Erysipelas 11, Puerperal Fever 3, Pulmonary Tuberculosis 91.

Districts in which the following Epidemic Diseases have occurred.

Measles.	Scarlet Fever.	Diphtheria and Membranous Group.	Typhoid Fever.	Whooping Cough.	Small Pox.
Whitby Urban Ormesby Guisborough Urban Loftus Eston Northallerton Urban Pickering Rural Northallerton Rural Thornaby-on-Tees Startforth Stokesley Helmley Thirsk Kirkmoorside Richmond Rural South Bank in Normanby	Reeth Whitby Urban Ormesby Guisborough Urban Loftus Redcar Saltburn Skelton and Brotton Guisborough Rural Malton Rural Croft Eston Leyburn Northallerton Urban Wath Middlesbrough Rural Flaxton Pickering Rural Northallerton Rural Malton Urban Masham Pickering Urban Thornaby-on-Tees Startforth Aysgarth Stokesley Easingwold Helmley Helmley (Oswaldkirk Division) Thirsk Kirkmoorside Richmond Rural Richmond Urban Scarborough Rural South Bank in Normanby Bedale	Whitby Urban Ormesby Guisborough Urban Loftus Redcar Saltburn Skelton and Brotton Guisborough Rural Malton Rural Eston Northallerton Urban Middlesbrough Rural Flaxton Pickering Rural Northallerton Rural Malton Urban Thornaby-on-Tees Stokesley Easingwold Thirsk Richmond Rural Richmond Urban Scarborough Rural South Bank in Normanby Bedale	Whitby Urban Ormesby Redcar Skelton and Brotton Northallerton Urban Flaxton Malton Urban Thornaby-on-Tees Aysgarth Stokesley Scalby Thirsk Richmond Rural South Bank in Normanby Bedale	Ormesby Guisborough Urban Redcar Saltburn Skelton and Brotton Malton Rural Eston Northallerton Rural Thornaby-on-Tees Startforth Stokesley Easingwold Thirsk Richmond Rural South Bank in Normanby Bedale	

Measles and Whooping Cough are notifiable in the Thirsk District.

The following Authorities have not yet made provision for the Isolation of Infectious Diseases:—

URBAN.—Hinderwell, Kirklington and Upsland, Malton, Pickering.

RURAL.—Easingwold, Helmsley, Kirbymoorside, Leyburn, Malton, Pickering, Reeth, Richmond.

SPECIAL REPORTS.

DATE.	MEDICAL OFFICER.	DISTRICT.	SUBJECT.
May 6th	Dr. Scott	Pickering Rural	Measles
June 9th	Dr. Fawcett	Middlesbrough Rural	Whooping Cough
June 11th	Dr. Eddison	Bedale	Scarlet Fever
August 16th	Dr. Stainthorpe	Guisborough Urban	Water
September 25th	Dr. Want	Reeth	Scarlet Fever
October 30th	Dr. Laverick	Whitby Rural	Measles, Diphtheria

SCARLET FEVER occurred in 36 Districts, 1,137 cases being reported with 36 deaths. The attack rate per thousand of the population being 4·03, the death rate per thousand 0·12, and the death rate of persons attacked 3·16 per cent.

Two cases in the Reeth District, one imported, and as the other occurred in the Head Teacher's house the school was closed. Sixteen in the Whitby Urban District, all removed to hospital. Two hundred and twenty-three in the Ormesby District, thirty-eight removed to hospital, four deaths, the epidemic commenced in August, 1912. Dr. Jackson writes, "The Ormesby District is not provided with a Fever Hospital of their own, and it has been the practice for many years only to remove to hospital patients from business premises and houses where a separate room could not be provided for isolation. Until this year this method had worked fairly satisfactorily from a public health standpoint, although the ideal method would be to isolate in hospital all cases from a working-class population. Many medical men are opposed to the present-day principle of herding together in one ward or block large numbers of patients with diseases of a septic order. It is not many years ago that general hospitals did the same thing, and with the same (for the patients) harmful consequences." Twelve cases in the Malton Rural District, one death. One case at Stapleton in the Croft Rural District. Fifty-two in the Eston District, thirty-nine removed to hospital, one death. Six cases in the Leyburn District. Twenty-eight in the Northallerton Urban District, all of a mild type, twenty-four removed to hospital. One in the Wath District. Five in the Middlesbrough Rural District, two removed to hospital. Eighteen in the Flaxton District, nine removed to hospital, eleven occurred at Haxby, school closed. Sixteen cases in the Pickering Rural District, school at Newton closed. Fifty in the Northallerton Rural District, twenty-two removed to hospital, one death, Brompton school closed. Three mild cases in the Malton Urban District. Three in the Masham District. Five in the Pickering Urban District, one death. Sixty-nine at Thornaby-on-Tees, seventeen removed to hospital, five deaths. One hundred and thirty-three in the Guisborough Rural District, of which eighty-two occurred in New Marske, twenty-four in Marske, and twenty-two in the parish of Easington, New Marske school closed, eight deaths. Twenty-eight cases in the Guisborough Urban District, thirteen removed to hospital. Seventy in the Loftus District, thirty-five being in eighteen houses at Loftus, twenty-one in fifteen houses at Liverton Mines, ten in nine houses at Carlin How, and four in four houses at Skinningrove. Eighty-six in the Redcar District, forty-eight removed to hospital, six deaths. Thirty-seven in the Saltburn District, school closed, one death. Sixty-five in the Skelton and Brotton District, one removed to hospital. Eight in the Startforth District, four removed to hospital. One in the Aysgarth District. Eighteen in the Stokesley District, twelve removed to hospital, one death, nine of the cases were members of one family at Nunthorpe. Five in the Easingwold District. One in the Helmsley District, and one in the Oswaldkirk Division of the Helmsley District. Thirty-six in the Thirsk District, eight being in one house, eighteen removed to hospital. Five in the Kirbymoorside District. Seventeen in the Richmond Rural District seven being in one house at Tunstall, one death. Ten in the Richmond Urban District, all removed to hospital, six of the cases occurred in a family who had just previously removed into the town from the neighbourhood of Thirsk, one of the members having recently been discharged from an Isolation Hospital when she had been treated for the disease. Eight in the Scarborough Rural District, school at Hackness closed. Sixty-one in the South Bank in Normanby District, one death. Dr. Glen writes, "The question of proper isolation apart from hospital treatment is one difficult to solve. Fortunately many of the cases of both Scarlet Fever and Diphtheria are slight. As a result of this the patients after the first few days—sometimes not more than two or three—feel well and will not lie up, but will insist on having the run of the house. . . . It has been noticed in years gone by that it is the newer parts that have the most cases of infectious disease. It is the same during the last year, comparatively few of the newer streets have escaped having one or more cases occurring in them. . . . It is to be noticed that only two streets in the oldest part of the town had each three cases." Twenty-five cases in the Hinderwell District, one death. Six in the Whitby Rural District, one death. Six in the Bedale District, three removed to hospital.

DIPHTHERIA AND MEMBRANOUS CROUP occurred in 25 Districts, 493 cases being reported with 52 deaths. The attack rate per one thousand of the population being 1.75, the death rate per thousand 0.18, and the death rate of persons attacked 10.54 per cent.

Eighteen cases in the Whitby Urban District, three of which were contracted outside the district, twelve removed to hospital, three deaths. Twenty-three in the Ormesby District, two deaths. Seven in the Malton Rural District, one death. Twenty-eight in the Eston District, seventeen removed to hospital, one death. Dr. Thomson writes, "I have tried unsuccessfully to find a common source of the diphtheria cases, and I fear that the infection is in nearly all cases from a pre-existing one. None of the cases could be described as severe ones, so that it is very possible that these are some cases not seen by a doctor and attending school, and so infecting others." Six cases in the Northallerton Urban District, all removed to hospital, no deaths. Dr. Baigent writes, "It is now well recognised that persons, particularly children, may have the germs of Diphtheria in their throats, without themselves actually suffering from the disease, and still be capable of spreading Diphtheria to others, particularly in schools." One in the Middlesbrough Rural District. Twenty-nine in the Flaxton District, seventeen removed to hospital, two deaths, twenty-five occurred in Haxby and Wigginton, twenty-four being notified between August 19th and October 6th. Dr. Raimes writes, "The disease varied in severity, in some instances being exceedingly virulent, whilst in others it was very mild. The beginning of the epidemic coincided with the disturbance of old drains in connection with the carrying out of the Housing and Town Planning Act, and rapidly spread amongst the school children." Haxby and Wigginton Schools closed. Three cases in the Pickering Rural District. Eleven in the Northallerton Rural District, nine removed to hospital, two deaths, school at Thornton-le-Beans closed. Nine in the Malton Urban District, of which seven were notified in December. Seventeen at Thornaby-on-Tees, five deaths. Eleven in the Guisborough Rural District, one death. Dr. Stainthorpe writes, "It does not follow when the specific bacilli of diphtheria invade a body that the disease will manifest itself (if ever it does so) after the ordinary incubation period. Diphtheria is first a local disease, then a general. If the local conditions, that is the state of the mucous membrane of the throat, mouth, nose, etc., are unfavourable to the growth of the bacilli at the time of invasion, they fail to produce the disease. But the bacilli may remain in contact with the membrane for a considerable time ready to take effect should the condition change in such a way as to favour their growth and the production and absorption of the poison which renders the disease general." Eighteen in the Guisborough Urban District, one death. Thirty-three in the Loftus District, sixteen being in fourteen houses at Loftus, ten in ten houses at Carlin How, and seven in four houses at Skinningrove, twenty-one removed to hospital, one death; Loftus Infant School closed. Dr. Stainthorpe writes, "The pencils used by the scholars were bacteriologically examined, and though the specific bacilli were not found thereon, allied bacilli (Hoffman's) were. I communicated with the Local Education Authority recommending that such steps be taken as would prevent any one child's pencils, etc., being used by any other child. That Authority provided paper bags for the purpose." Fifty-nine in the Redcar District, four deaths, fifty three of the cases occurred in Redcar and six in Coatham. Dr. Stainthorpe writes, "Some years ago I arrived at the conclusion, after considerable experience of diphtheria in the several districts in the Guisborough Union, that between insanitary conditions and the prevalence of diphtheria there exists no direct connection. . . . It has always been a puzzle to me why diphtheria, an infectious disease, should be supposed to be due to or spread by defective sanitation any more than scarlet fever, measles or whooping cough. . . . In my opinion the isolation of cases of diphtheria is of greater importance than those of scarlet fever." Two cases in the Saltburn District. Sixty-seven in the Skelton and Brotton District, of which forty-six occurred at Brotton, eight deaths. Sixteen in the Stokesley District, six removed to hospital, two deaths, four of the cases occurred at Great Ayton, seven at Yarm, one at Crathorne, and four in one house in Bilsdale concerning which Dr. Yeoman writes, "There was a similar outbreak in the same house a few years ago. It is a damp one, and had an underground cellar, the sanitary condition of the house has been improved." Four cases in the Easingwold District, two deaths. Seven in the Thirsk District, five being in one house at Thornton-le-Moor, three removed to hospital, one death. Twelve in the Richmond Rural District, six being in one house at Skeeby, the owner of the village repaired and furnished an empty cottage, also supplying fuel and other necessities for the use of the healthy members of the family, school closed, two deaths. Twenty in the Richmond Urban District, nineteen removed to hospital, four deaths, the incidence of the disease fell almost equally on all the Elementary Schools. A full time medical officer devoted his attention to bacteriological examinations, throat drill and tracing contacts, swabs were taken from the throats of all the children attending the Elementary Schools and contacts. After a time it was considered that the epidemic was at an end, but unfortunately it broke out again. Dr. Williams took swabs from the school children, teachers and contacts, with the result that thirty-three carriers were discovered, these were isolated in the Fever Hospital and the Isolation Hospital on the Race Course and not discharged until three consecutive negative swabs had been taken. Every precaution was taken to prevent the spread of the disease, including disinfection of the infected houses, in some cases the walls being stripped and limewashed, articles requiring to be destroyed being burnt. One case in the Scarborough Rural District. Twenty-nine in the South Bank in Normanby District, one death. Three cases in the Hinderwell District. Twenty-nine in the Whitby Rural District, the outbreak at Snainton being spread from school attendance, six deaths. Thirty in the Bedale District, fourteen removed to hospital, one death, schools at Kirkby Fleetham and Snape closed.

TYPHOID FEVER occurred in 15 Districts, 54 cases being reported with 10 deaths. The attack rate per one thousand of the population being 0.19, the death rate per thousand 0.03, and the death rate of persons attacked 18.51 per cent.

One case of Continued Fever in the Reeth District. Dr. Tinley, Whitby Urban, writes, "As usual, we have had no case during the year. One was reported in a visitor, who came to the town ill, but it turned out to be something much more simple. We ought to be proud, as a health resort, that we do not get this disease, year after year goes past, and we rarely get any cases unless they are imported." Nine cases of Typhoid and one of Continued Fever in the Ormesby District, two deaths, Dr. Jackson writes, "The eating of shellfish, especially mussels from the mouth of the Tees is supposed to be the cause of much Enteric Fever in this neighbourhood, but I have not found any evidence of it, although special attention has been paid to this matter for several years. Only one of the above patients was in the habit of eating shellfish." Dr. Baigent, Northallerton Urban, writes, "This disease, which some years ago was so prevalent in the town as to be regarded almost as an annual visitor, has now practically disappeared, and for several years the number of cases have been few. One case was imported from Middleham, where the man had been working for some months and came to Northallerton suffering from the disease. He was isolated in the hospital here at the expense of this Council." Two in the Flaxton District, one removed to hospital. Three in the Malton Urban District, of which one was notified in May and the remaining two in October all in the same house. Eight at Thornaby-on-Tees, four removed to hospital, one death. Three in the Redcar District, one probably due to infected shell-fish. One in the Skelton and Brotton District. Eight in the Aysgarth District, three removed to hospital, one death. Two cases, both fatal, at Great Ayton in the Stokesley District, Dr. Yeoman writes, "This is a water-borne disease, which makes one anxious about the water supply, which is chiefly from wells which are easily polluted." One case in the Scalby District. Two in the Thirsk District. One in the Richmond Rural District. Four in the South Bank in Normanby District, two deaths. Five in the Whitby Rural District, one death. Three cases in the Bedale District, one removed to hospital.

MEASLES were reported from 16 Districts, the number of deaths being 88, giving a death rate of 0.18 per thousand.

Two outbreaks in the Whitby Urban District, three deaths, St. John's Infants, the Secondary, and Green Lane schools closed. Four deaths in the Ormesby District, Dr. Jackson writing on Measles and Whooping Cough, says, "They have caused much mischief during the last three years and there should not be many susceptible children in the district." Outbreaks at Manfield and Cleasby in the Croft Rural District, schools closed. Two deaths in the Eston District. Prevalent at Middleham in the Leyburn District, school closed. Three deaths in the Northallerton Urban District. Outbreak at Dishforth in the Wath District, school closed. One death in the Pickering Rural District. One in the Northallerton Rural District, schools closed at Great Langton, Northallerton, Ainderby Steeple, and Danby Wisse. Two at Thornaby-on-Tees. Prevalent during the first quarter of the year in the Guisborough Urban District, five deaths. Prevalent during the second half of the year at Loftus, Liverton Mines, and Skinningrove, Loftus Infants, Roman Catholic, Liverton Mines, and Skinningrove schools closed, eleven deaths. A few cases in the Startforth District. One death in the Stokesley District. Two in the Helmsley District. Two hundred and eleven cases in the Thirsk District, at Thirsk, Sowerby, Knayton, Topcliffe, Cowesby, and Kirby Knowle, school closed, no deaths. Epidemic in the Kirbymoorside District. Prevalent in the Richmond Rural District, schools at Bolton-on-Swale, Gilling West, and Caldwell closed. Epidemic at South Bank in Normanby, three deaths. Prevalent during the early months of the year in the Hinderwell District.

WHOOPING COUGH was reported from 16 Districts, the number of deaths being 30, giving a rate 0.10 per thousand.

Four cases in the Reeth District. Three deaths in the Ormesby District. Two in the Malton Rural District. Prevalent in the Eston District, two deaths. Epidemic at Stainton in the Middlesbrough Rural District, school closed. One death in the Northallerton Rural District and six at Thornaby-on-Tees. One in the Guisborough Urban District, two in the Redcar District, two in the Saliburn District, and one in the Skelton and Brotton District. A few cases in the Startforth District. One death in the Stokesley District, one in the Easingwold District, and seventy-one cases in the Thirsk District, Dalton school closed, four deaths. Prevalent in the Richmond Rural District, school at Hudswell closed. One death in the South Bank in Normanby District. Three in the Bedale District.

DIARRHOEA AND ENTERITIS caused 132 deaths, giving a rate of 0.46 per thousand.

Four deaths in the Whitby Urban District. Twenty-seven in the Ormesby District, Dr. Jackson writes, "I can only repeat here what has been said in many previous reports, that the only way of diminishing this sad loss of life is the abolition of insanitary conditions especially middens and pans, and the education of mothers in the rearing of infants by Health visitors." Four in the Malton Rural District, seven in the Eston District, and one in the Northallerton Urban District. Two in the Middlesbrough Rural District, one in the Flaxton District, one in the Pickering Rural District, and two in the Northallerton Rural. Five in the Malton Urban District and nineteen at Thornaby-on-Tees. One in the Guisborough Urban District, nine in the Loftus District, six in the Redcar District, and ten in the Skelton and Brotton District. One in the Startforth District, two in the Aysgarth District, three in the Stokesley District, two in the Easingwold District, and two in the Oswaldkirk Division of the Helmsley District. One in the Thirsk District, one in the Richmond Rural, and seventeen in the South Bank in Normanby District, Dr. Glen writes, "Nearly one fourth of the total of infantile deaths were due to these diseases. They are much more fatal than all the other Zymotic diseases combined." Three in the Hinderwell District, and one in the Bedale District.

WATER SUPPLIES.

Dr. Want, Reeth, writes, "The new water supply for Muker is reported to be one of the best, derived from a well-known source called 'Dr. Wood Spring.'" Dr. Shaw, Malton Rural, writes, "The success of the boring operations at Amotherby has at last brought a water supply for the street villages within the range of a practicable scheme." Dr. Walker, Croft Rural, writes, "The village pumps have been kept in proper working order, but one or two are liable at times to surface contamination, and this takes place occasionally at Eryholme, where the pump has received repeated attention for it, and the water at other times has been found to be pure and wholesome." Several wells in the Eston District were found to be polluted and were closed. In the Leyburn District the supply to Finghall is from shallow wells which are unsatisfactory, at Middleham seventy-five per cent. of the water has been running to waste and there was great scarcity during the drought, at Garriston the supply is from a well which runs dry in summer, that of Horsehouse is not protected, and that of the upper part of the village of West Witton is unsatisfactory. Dr. Baigent, Northallerton Urban, writes, "The water supply coming as it does from the Hambleton Uplands is free from all risks of contamination and is an ideal supply as to its purity, clearness and softness. The quantity, however, has not been sufficient for the district's demands for some time past. This is especially felt during a season such as the year we are reviewing, when the shortage has amounted in some cases to want, and in others to serious inconvenience, considering all things it is nothing short of remarkable that a flow of this magnitude, which is not large at its best, should hold out at all during such a season when even larger supplies in wetter counties have given out in large numbers. To provide against this shortage in future years, the new scheme (1909), consisting of a works for impounding the water of an upland beck at a level above the present compensating reservoir, has long been in hand. It was the full expectation of the Council that this would be in operation before the close of the present year. Delays of various kinds have kept back this scheme, and the works are not in the advanced state the Council had good reason to anticipate. Work is now being carried on at a more rapid rate, and it is hoped the period of suspense and anxious delay is now a thing of the past, and that it may soon be possible to gauge the date when the works will be completed and opened." Dr. Raimes, Flaxton Rural, writes, "Many parts of the district need a better water supply than they have at present. Most of the villages are so far away from any source of public supply that it is difficult for me to suggest to the Council how this should be done. Skelton and Rawcliffe are, however, within a reasonable distance of York, and the York Main extended to those villages would be of great advantage to the inhabitants." In the Pickering Rural District there was a shortage at Thornton-le-Dale, but steps are being taken to augment the supply, the scheme for Middleton, Wreton, and Aislaby is almost completed, Newton and Lockton are dependent on rain water collected in cisterns. In the Northallerton Rural District there was a shortage during the summer at Brompton, but this should be obviated when the extension of the Northallerton Urban Council are completed, at East Cowton the supply gave out, also at Appleton Wiske, the mains at Osmotherley have been extended forty yards. Dr. Holt, Malton Urban, writes, "The water supply of the district is obtained from a deep well sunk in the middle oolite. The position of the well is to the east of the town of New Malton, on the north bank of the River Derwent. Adjacent to the well is a large pool fed by a number of underground springs, and containing a luxuriant growth of various pond weeds. When these springs are weak in yield, the water in the pool sinks to a low level, and the vegetation becomes exposed. Commenting upon this in my monthly report for September, I expressed the opinion that 'the area of the pool is far too extensive, and that the greater portion of it might be filled up with distinct advantage in the direction of protection.'" Dr. Stainthorpe, Guisborough Rural, writes, "Hitherto no action has been taken to ascertain whether or not any water (at present used) acted on lead, it is proposed to make such tests and examination as will enable this information to be obtained. A proposal was made to convey water from a spring to supply the village of Westerdale, the cost to be defrayed by the persons interested. The water from this spring was found to have a marked action on lead, as was that from a second spring, in consequence the proposal fell through. Regarding the supply to Guisborough, Dr. Stainthorpe writes, "In June I was informed by one of the medical practitioners that he had a number of cases of lead poisoning under treatment. On June 31st I took samples of the water from taps in four houses which I handed to a firm of analytical chemists. Traces of lead were found in three of the samples. In July a handbill was issued by the Water Company. The statements made therein were such as to render it necessary for me to make a special report to the Council on the subject, a copy of this report was forwarded to the Local Government Board. . . . In August, Dr. Frank Seymour, one of the Medical Officers of the Local Government Board, visited Guisborough for the purpose of obtaining information on the matter. Dr. Seymour's report, received recently, deals so fully with every point connected with the subject of the enquiry as to render it unnecessary for me to make any statement. I will however quote the following from his report—'no supposition other than the action of an agency such as the drinking water, common to the whole community, would meet the case.'" At one period of the year, the late summer and early autumn, the water contained such an amount of earthy and vegetable matter as to render it absolutely unfit for domestic use. During this time the inhabitants obtained their supply from two springs and from private wells. The water in some of the wells had not been used for some time. Under the circumstances it was deemed necessary to have these waters analysed. This was done, in two instances the analyses indicated sewage pollution, a bacteriological examination of these waters showed one to be unfit for use, steps were taken to prevent the public using it. To improve the quality of the water the Company has made the following alterations and additions:—removed the filters to a higher point, nearer the reservoir; increased the number of

"(Candy) filters from two to three; constructed a service tank of 80,000 gallons capacity into which the filtered water passes; provided means for so treating the water as to make it non-plumbo-solvent." In the Loftus District owing to want of pressure a constant supply was not available in the higher parts of Loftus, but this has been remedied by the provision of two tanks. In the Skelton and Brotton District tanks have been erected at Brotton and Skelton Green in order to ensure a constant supply to the higher parts of the district. In the Startforth District some shortage occurred from leakages in pipes but these were repaired, at Barningham the dip wells were raised above the ground level, closed in and pumps connected. In the Aysgarth District an efficient supply has been provided for Nappa Scar. In the Stokesley District notice has been given by the Tees Valley Water Board of their intention to apply for Parliamentary Powers to lay pipes and supply Great Ayton, Little Ayton with Tunstall, Kirby, Nunthorpe, and Stokesley. Sir Hugh Bell is having a supply from the hills laid on to Ingleby Arncliffe, Ingleby Cross, and East Rounton, a storage tank being provided at Ingleby Arncliffe. In the Easingwold District three deep wells have been sunk at Brafferton. A Local Government Board Enquiry was held concerning a proposal to supply a considerable portion of the district with water. In the Helmsley District satisfactory supplies are required at Coulton, Cawton, Old Byland, Cold Kirby, Olstead, Sproxton, and Rievaulx, a supply has been provided during the year for Murton. There was a shortage at Thirsk, and water from Dalton Moor, Sandhutton School, and Sinderby was found to be unfit for consumption. In the Kirbymoorside District a scheme for augmenting the supply to Kirbymoorside by tapping springs on Rudland Moor and connecting them with the existing mains at Gillamoor received the sanction of the Local Government Board after an enquiry in October, 1912, but the work has been deferred owing to the advance in the price of materials, the villages of Gillamoor and Fadmoor receive their supply from an open race, that of Great Edstone from two shallow wells, when these fail, the water is used from the river Dove, the supply to Ness and Muscoats is unsatisfactory. In the Richmond Rural District a supply will probably be provided for the village of Newsham, at Middleton Tyas the water from the Tumbling Well is of good quality, but there is some danger of pollution from drains which are on a higher level, it is suggested that these be taken up and relaid in concrete or iron pipes provided. Dr. Williams writes, "Although no material progress has yet been made towards giving the inhabitants of Melsonby an ample supply of wholesome water owing to the opposition of the Parish Council, it is some satisfaction to think that at last you are now after much forbearance contemplating over-riding their opposition, and the sooner the work is taken in hand the better, for the inhabitants have no water fit to drink within reasonable distance." In the Scarborough Rural District progress is being made in works for the supply of Snainton, East and West Ayton suffered from a shortage. Dr. Laverick, Hinderwell, writes, "In the summer we were again threatened with a water famine, and for some weeks Port Mulgrave suffered severely from want of a drinking supply. Fortunately the works which the Council undertook at Ellerby proved successful, and we were able to meet all demands in the late summer and early autumn." In the Whitby Rural District a supply at a reasonable cost has not yet been found for Ugthorpe, that at Glaisdale is not quite satisfactory but is having consideration, the main at Goathland has been extended two hundred and sixty yards.

SANITARY WORK.

Dr. Tinley, Whitby Urban, writes, "Sewerage, there is nothing to add to my last report under this heading. We hear very few well-founded complaints about the condition of these sewers, and the alteration in the way of ventilation, cleansing, and so forth, which have been carried out of late years have produced such a condition that, when the channel in the harbour is deepened, so that there is more water in the harbour at low tide, I consider that there will be no need for the Council to contemplate doing anything further in the direction of carrying the sewerage further out to sea." In the Croft Rural District the sewerage of Barton is to be dealt with. In the Eston District five additional ventilating shafts are to be provided. Nine cases of overcrowding occurred, four of which were remedied. In the Leyburn District some progress has been made in the drainage of Middleham. Dr. Baigent, Northallerton Urban, writes, "The New Sewage Disposal Works have now been in continuous working order for nearly three years. The first and last of these years being dry and droughty in the extreme, and the other abnormally wet. Both the character and quantity of the sewage to be treated has therefore varied much, and the works have been given a most severe test over a very wide range of varying conditions, having to treat sewage at markedly different temperatures, varying much in its composition, the amount of dilution and volume to be treated. It is most pleasing to be able to report that all that was expected of these works has been amply fulfilled, that they have worked without any difficulty or hitch, and that their management has been efficient and economical." One case of overcrowding occurred at Cundall in the Wath District. In the Middlesbrough Rural District a length of new sewer with settling tank has been provided. In the Flaxton District the sewerage scheme at Strensall has been completed and is now in use, but the drainage of Heworth Without and a portion of Huntington remain in an unsatisfactory condition, the Council are considering an agreement with the York Corporation for the reception of the sewage into the City sewers. Dr. Raimes writes, "It is with a feeling of intense disappointment to me that Public Scavenging has not been adopted by this Council. If the individual members of the Council would only accompany the Inspector and myself on our visits of inspection in connection with the Housing and Town Planning Act, they would see for themselves the advisability of this measure being adopted. The ash pits and privies we frequently find in a disgusting and filthy condition through neglect. It is the duty, and I speak seriously, of this Council, in the interests of the Public Health, to see that this long-neglected grievance should come to an end." Dr. Scott, Pickering Rural writes, "There is no efficient or recognised system of sewage disposal within your district. For

"the most part the houses in the villages empty their drains into larger main drains, which in their turn either flow into the village stream or else into some open gutter which runs into the adjacent field. With the advent of water supplies to some of our villages, it has made it possible to place water closets within the houses, and in many cases this has been done with great danger to the health of the district, as the present system of sewage disposal is not suitable for excreta from water closets." In the Northallerton Rural District the outfall of the Smeaton sewer was blocked, at Osmotherley eighty yards of 6in. sewer have been laid, a new 6in. sewer for twelve houses at Cock Pit Hill, Brompton, one hundred and ten yards of 9in. sewer at Nether Siltion, seventy yards of 18in. at Borrowby, and work is being proceeded with for a new sewer at Harlsey. At Osmotherley workmen employed on the new waterworks have been accommodated in an empty linen warehouse. Dr. Hutchinson writes, "Town refuse is still brought in considerable quantity to some of our country stations, and from time to time we receive complaints of serious nuisance arising therefrom. It has again been necessary to post notices calling upon farmers to remove and plough in without delay all such manure brought into the area by them. Attention has frequently been called to the records of infectious disease and death attributable to this traffic. . . . Burial Grounds, Brompton Churchyard is now full and should be closed. Danby Wiske Churchyard—In wet seasons it is frequently impossible to inter in this burial ground in graves that do not contain water at the regulation depth." Ten cases of overcrowding were reported in the Malton Urban District. During March a Local Government Board Enquiry was held concerning the housing of the working classes, a scheme for the provision of fifty houses is in hand, building operations having already commenced. In the Pickering Urban District the direction of flow and the prevention of deposition of sewage at the outlets of the drains in the centre of the town has been improved. In the Guisborough Rural District a new sewer to accommodate a few houses at Marske has been constructed. Dr. Stainthorpe writes, "It is a matter for congratulation that Education Authorities have at last realised the necessity of teaching cooking and house work. Much of the unhealthy condition existing proceeds from lack of nourishment, not from lack of means to obtain that nourishment but of lack of knowledge of the feeding value of the various foods and of the best means of so cooking foods as to render them digestible. This teaching requires to be carried further, general hygiene should be taught practically." Twenty-seven houses were built in the Loftus district. Dr. Stainthorpe, Redcar, writes, "A large number of tents were in use during the summer months. The majority were on land at the east end of the town. These tents and their surroundings were inspected from time to time. It was found necessary to serve several notices to comply with one or more of the Bye-laws. The occupant of some of the tents who go to work daily in neighbouring towns shut them up completely during the day, thus retarding efficient ventilation. Some better method for the ventilation of tents than that in use at present is desirable." Twenty-seven houses were built during the year. In the Saltburn District the pollution of the stream flowing into the sea at Saltburn, which resulted from a break in a branch sewer caused by mining subsidences, in the Skelton and Brotton District, has ceased, a new length of sewer having been constructed. Nineteen houses were built during the year. In the Skelton and Brotton District eighty-five houses were built during the year. In the Startforth District the main sewer at Bowes has been extended twenty yards and one hundred and twelve yards of branch sewer laid, one case of overcrowding occurred. In the Aysgarth District a sewerage scheme for West Burton is being provided, one case of overcrowding occurred. In the Stokesley District the number of water closets in Stokesley is being increased and complaints are made of the offensive smells from the street gulleys, at Great Ayton the sewage works during the spring were water-logged, but are now working satisfactorily, and at Pictou the open sewer has been piped and settling tanks provided. In the Easingwold District branch drainage has been laid at Easingwold and Tollerton and connections made at Huby and Sutton. Dr. Hicks writes, "For many years I have pointed out to you that the drainage of most of the villages throughout the district is primitive in provision and by no means meets the requirements of sanitation as it is understood to-day. It has seemed to me that the building of new houses or extensive alterations in old ones is a little previous when the sites upon which they rest are saturated with the organic accumulation of centuries, and that sewerage is of primary importance. What I want to point out in this report is that simultaneous action in sewerage provision and in housing accommodation are inseparably connected." In the Scalby District inspection chambers are required for many of the house drains. In the Oswaldkirk Division of the Helmsley District the sewerage of Ampleforth is unsatisfactory. In the Thirsk District a new length of sewer has been laid and portions of the old sewer relaid at Carlton Miniott, plans are being considered for the extension of the Isolation Hospital. In the Kirbymoorside District it is proposed to proceed with an extension of sewers in Kirbymoorside to replace the rubble sewer in Railway Street, the drainage of Nawton, Wombledon, and Fadmoor discharges into open gutters. In the Richmond Rural District the drainage of Melsonby, Brompton, and the south side of Scorton requires attention, Dr. Williams points out that the absence of a proper system of sewerage debars the inhabitants from the convenience of water closets. In the Richmond Urban District several drains have been relaid, and six additional ventilating shafts erected, several privy closets have been converted into water closets which are now almost universal in the town. Dr. Williams recommends that every household be provided with a covered iron receptacle for refuse. In the Scarborough Rural District several plans have been submitted for improving the outfall at East Ayton, but none have met with the approval of the Parish Council, one hundred and fifty yards of 9in. new drains have been laid at Cayton, and two hundred and fifty yards of 6in. and two hundred and fifty yards of 9in. at Hutton

Buscel. In the South Bank in Normanby District it has been decided to abolish ashpits and pan closets and establish the water carriage system, some progress having already been made. Commenting on the result of the application of the Middlesbrough Authority for the extension of their boundary, Dr. Glen writes, "It now remains for the district to shew that it is capable of managing its own affairs in a manner superior to Middlesbrough. It is the bounden duty for the district to be kept as far ahead of Middlesbrough in the future as it is now and has been in the past." Dr. Laverick, Hinderwell, writes, "The fouling of the beach at Runswick with crude sewage will be more marked than ever in the immediate future, and the position is bound to become acute." In the Whitby Rural District a scheme for the sewerage and sewage disposal of Sleights has been adopted by the Council, and it has been decided to deal with that of Goathland in sections, one of which has been completed.

THE HOUSING, TOWN PLANNING, ETC., ACT, 1909.

In the Reeth District three hundred and ten houses were inspected of which five were found to be defective but were repaired. In the Whitby Urban District one hundred and thirty-three houses were inspected, seventy-one of which had defects, nineteen closing orders were made but in four cases the defects were remedied. Forty-three houses inspected in the Ormesby District, no closing orders made. Seventy-six in the Malton Rural District of which thirty-one were found to be defective, twenty-five were repaired, and six closing orders were issued. Fifty-one in the Croft Rural District, twenty-three of which were found to be defective but were remedied, no closing orders issued. One hundred and ninety-nine in the Eston District, sixty-two found to be unfit for habitation, eighteen closing orders issued. In the Leyburn District eighty-eight houses were inspected and twenty-eight defects remedied without order. Seventy in the Northallerton Urban District, no closing orders issued. Sixty-nine in the Wath District, one closed. Fifty-six in the Middlesbrough Rural District, no closing orders issued. One hundred and thirty-six in the Flaxton District, four unfit for habitation, two rectified, two closing orders made. Fifty in the Pickering Rural District, thirty-eight improved, Dr. Scott writes, "Many houses in your district undoubtedly require attention, and some will have to be condemned as unfit for habitation. It is impossible to move too rapidly in this matter as cottages are not too plentiful, and it would mean turning families out of their homes with no possibility of securing a new one in the neighbourhood." One hundred and fifteen in the Northallerton Rural District, two closing orders made. Four hundred and fifteen in the Malton Urban District, twenty-five closing orders made. Two hundred and four in the Masham District, no closing orders made. No action has been taken by the Pickering Urban Council. Two hundred and eighty at Thornaby-on-Tees, no closing orders made. One hundred and twenty-seven in the Guisborough Rural District, no closing orders made. Ninety-five in the Guisborough Urban, no closing orders made. One hundred and twenty-nine in the Loftus District, no closing orders made. Seventy-five in the Redcar District, no closing orders made. Twenty-two in the Saltburn District, no closing orders made. Two hundred and forty-three in the Skelton and Brotton District, no closing orders made. Eighty-five in the Startforth District, no closing orders made. Twenty-six in the Aysgarth District. One hundred and forty in the Stokesley District, no closing orders made. Ten in the Scalby District, Dr. Forman writes, "There is a decided shortage of cottages at a reasonable rent for a working man, but there are plenty of houses to be had for any one able to afford the rent." Two hundred and twenty-one in the Helmsley District. Two hundred and forty-three in the Thirsk District, thirteen closing orders made. Two hundred and eighty-two in the Kirbymoorside District, three closing orders made. Dr. Williams, Richmond Rural, writes, "During the year fifty-two houses were inspected, and it is satisfactory to be able to state that the majority of the owners acquiesce in the improvements ordered, but some of them strongly object to incur the necessary expense which in some instances is nearly as much as the property is worth. Generally speaking it is the well-to-do that give the most trouble, and at times it is necessary to issue a closing order before they will do anything." In the Richmond Urban District satisfactory progress continues to be made with the Inspection under the Act. Ninety-two in the Scarborough Rural District, one closing order made. Considerable progress has been made with the inspections in the South Bank in Normanby District and a number of closing orders made, sixty new houses have been erected. Seventy-two in the Hinderwell District, no closing orders made. Twenty-two in the Whitby Rural District, no closing orders made.

POLLUTION OF STREAMS.

In the Whitby Urban District there is pollution of a boundary stream between the Urban and Rural Areas. In the Ormesby District the sewage of the houses at Marton, after passing through interception tanks, passes into Ormesby Beck, and that of Ormesby Village into Middle Beck. In the Croft Rural District a tributary of the Tees is polluted by the sewage of Barton. None in the Eston District. Some in the Leyburn District. Very little in the Northallerton Urban District. None in the Wath District and Middlesbrough Rural. In the Flaxton District the drains from the houses in several villages eventually discharge into the Rivers Ouse and Foss, but owing to the completion of the works at Strensall the Foss is no longer polluted by the sewage of that village. Dr. Scott, Pickering Rural, writes, "All the streams in your district eventually flow into the Derwent, and in some portion of their course receive either the sewage from villages or from isolated houses. In some cases the sewage empties directly into the stream, in others it flows along field gutters and becomes somewhat purified." In the Northallerton Rural District the sewage of Osmotherley is discharged untreated into a stream. In the Malton Urban District the sewers discharge into the River Derwent at various points, through a distance of about one and a half miles. In the Masham District a portion of the sewage

of Masham discharges into the River Yore, there is also slight pollution of the River Burn from Swinton. Dr. Kirk, Pickering Urban, writes, "The beck passing through the centre of the town takes the crude sewage, this is not very detrimental but much improvement might be made by directing the flow and by scavenging the bed of the stream at least twice a year. There is much unsightly flotsam and jetsam." None in the Startforth District. Some in the Aysgarth District from West Burton, but works are in process of construction. Considerable in the Easingwold District. None in the Scalby District. Some in the Helmsley District. Considerable in the Thirsk District, the Codbeck, Swale, Wiske, and Ure being affected, along with streams at Pickhill, Kilburn, and Sutton. Some in the Kirbymoorside District. Some in the Richmond Rural District. In the Richmond Urban District the sewage is discharged untreated into the river. Very little in the Scarborough Rural District. None in the South Bank in Normanby District. Some in the Hinderwell District. Considerable in the Whitby Rural District.

MIDWIVES ACT, 1902.

During the year the names of fifty-five Midwives were placed on the roll against seventy-five in 1912 and seventy-seven in 1911. Six were registered for the first time against four in 1912.

In January 1912, sixteen were transferred to the jurisdiction of the Scarborough Authority, and ten ceased to practise in the County.

During 1913 the following ceased to practise in the County:—

March 4th—Elizabeth Robson (No. 15869), Lingdale.
November 10th—Ada I'Anson (No. 4338), Yarm-on-Tees.
December 31st—Annie Ada Orme (No. 25681), Middleton Tyas.
" 31st—Ellen Mary Vincent (No. 37796), Rural Nursing Association,
Northallerton.

On November 8th three Midwives resident in North Ormesby were transferred to the jurisdiction of the Middlesbrough Authority.

RECORDS RECEIVED.

Medical Aid 5, Still-birth 11, Premature Birth 3, Illness of Child 1, Death of Child 3.

On January 2nd, Sarah Annie Robinson, No. 12973, Eldon Street, Thornaby-on-Tees, was suspended from practice for ten days on account of a case of Puerperal Fever.

During the year eighty-three visits of inspection were made, and it is gratifying to note the continued improvement in the procedure of the Midwives. The work of the younger Midwives who have undergone training, and have either passed the examination of the Board or hold certificates from Examining Bodies recognised by the Board is most satisfactory, whilst that of the elder ones who registered on the claim of having been in practice previous to the passing of the Act is as satisfactory as can be expected, seeing that they lack proper training. On each visit I impress upon them the necessity of cleanliness of their persons, clothing, and appliances, and on the importance of cleanliness of the mother and her surroundings. Of the 6,751 births registered, 1,027 were attended by Certified Midwives, equal to 15.2 per cent., yet of the 6,751 births only one mother was notified as suffering from Puerperal Fever, which occurred in the practice of the Midwives. One thousand and twenty-seven cases were attended during the year. One midwife at Thornaby-on-Tees attended 173 cases, a second 99, and a third 63, one at North Ormesby 145, and a second 82, one at Grangetown 75, and one at Redcar 57.

Notices of removals, suspensions, deaths, and copies of all reports to the Local Supervising Authority are sent to the Central Midwives Board. Copies of the official roll were sent to the Local Supervising Authority and the Central Midwives Board on January 1st, 1914.

I have the honour to be,
My Lords and Gentlemen,
Your obedient Servant,

W. H. CHEETHAM, M.D., D.P.H.

Guiseley, 14th May, 1914.

APPENDIX. **NORTH RIDING OF YORKSHIRE.**

URBAN AUTHORITIES.

Deaths.

Cases notified.

DISTRICT. Area in Acres.	Population at all ages		Birth Rate.	Death Rate.	Zymotic Death Rate.	Infantile Mor- tality per 1000 Births	Measles.	Scarlet Fever.	Diphtheria and Membranous Croup.	Whooping Cough.	Small Pox.	Enteric Fever.	Other or doubt- ful Fevers.	Dysentery and Enteritis.	Cholera.	Croup.	Krysipelas.	Puerperal Fever.	Isolation Hospital.	Scarlet Fever.	Diphtheria and Membranous Croup.	Typhoid Fever.	Continued Fever.	Krysipelas.	Puerperal Fever.	Small Pox.	Pulmonary Tuberculosis.	Other Tubercular Disease.			
	Census, 1911.	Estimated to middle of 1913.																													
Eston (2,520) J. S. Thomson, M.B., CH.B.	...	12,026	12,220	29.78	17.67	1.06	93.4	2	1	1	2	...	...	7	...	...	...	...	...	Yes	52	28	...	...	...	...	...	16	9	Influenza, 3 deaths
Guisborough (6,120) W. W. Stainthorpe, M.D., D.P.H.	...	7,062	7,100	29.71	14.22	1.12	109.0	5	...	1	1	...	...	1	...	...	...	...	...	Yes	28	18	...	...	...	...	...	12	8	Influenza, 2 deaths
Hinderwell (1,600) J. B. Laverick, M.B., D.P.H.	...	2,491	2,500	24.80	11.60	1.60	00.0	...	1	...	...	...	...	3	...	...	...	...	...	No	25	3	...	...	...	...	...	...	...	Influenza, 1 death
Kirklington and Upsland (2,000) ... T. Sayer, M.B.C.S., L.R.C.P.	...	244	250	12.00	16.00	0.00	166.6	...	...	...	...	...	...	...	...	...	...	...	...	No	...	...	...	...	...	...	...	...	...
Loftus (2,658) W. W. Stainthorpe, M.D., D.P.H.	...	8,872	9,800	30.00	13.97	2.58	132.6	11	3	1	...	...	...	9	...	...	...	...	...	Yes	70	33	...	...	...	...	...	11	4	Influenza, 2 deaths
Malton (4,130) H. M. Holt, M.B.C.S., D.P.H.	...	4,822	4,822	19.70	10.99	1.24	84.2	...	...	1	...	...	...	5	...	...	...	...	...	No	3	9	3	...	...	...	...	18	5	
Masham (16,758) H. M. Cockcroft, M.B.C.S., L.R.C.P.	...	3,110	3,110	15.43	9.00	0.00	62.5	Yes	3	4	3	
Northallerton (3,367) W. Baigent, M.D.	...	4,806	4,946	23.25	11.52	0.80	104.3	3	...	1	...	...	...	1	...	...	...	...	...	Yes	28	6	1	...	...	...	...	...	...	Influenza, 2 deaths
Ormesby (4,403) ... H. W. Jackson, M.D., D.P.H.	...	14,568	15,150	36.70	17.60	2.77	146.0	4	4	2	3	2	...	27	Yes	223	23	9	1	6	11	6	Influenza, 1 death	

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	Census, 1911.	Estimated to middle of 1913.																										
Pickering (14,280) J. L. Kirk, B.A., M.B., M.C.	8,674	8,674	22-31	14-97	0-27	97-5	...	1	1	No	5	2	3
Redcar (1,630) W. W. Stainthorpe, M.D., D.P.H.	10,509	11,500	22-46	12-95	1-56	108-5	...	6	4	2	6	6	...	Yes	86	59	3	18	10
Richmond (2,520) H. Williams, M.B., M.C., L.R.C.P.	3,984	3,984	13-21	12-70	1-01	40-5	4	1	...	Yes	10	20	5	...
Saltburn (600) W. W. Stainthorpe, M.D., D.P.H.	3,324	3,500	15-08	11-14	0-86	94-4	...	1	...	2	1	...	Yes	37	2	2	4
Scalby (3,333) E. G. Forman, M.B.	1,630	1,725	8-11	6-95	0-00	00-0	1	...	Yes	2	...
Skelton and Brotton (16,699) W. W. Stainthorpe, M.D., D.P.H.	15,202	16,000	29-06	12-31	1-18	124-7	8	1	10	6	...	Yes	65	67	1	15	20
South Bank-in-Normanby (1,781) J. Glen, M.B.	14,976	15,750	33-58	17-84	1-58	137-9	3	1	1	1	...	2	17	11	...	Yes	61	29	4	20	5
Thornaby-on-Tees (1,993) T. Watson, M.D.	18,605	18,700	36-57	17-64	2-03	152-0	2	5	5	6	...	1	19	17	...	Yes	69	17	8	32	29
Whitby (2,009) W. E. F. Tinley, M.B.	11,189	11,180	22-36	12-66	0-39	48-2	3	...	3	4	9	...	Yes	16	18	1	23	10

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	Census, 1911.	Estimated to middle of 1913.																							
Aysgarth (81,012) D. Dunbar, M.B., B.S.	...	4,262	4,262	18.77	15.49	0.70	75.0	1	...	2	8	...	1	9	...	Influenza, 5 deaths
Bedale (40,530) F. R. Eddison, M.B.C.S., L.R.C.P.	...	6,939	6,939	19.02	13.69	0.72	61.6	...	1	3	1	3	5	1	1	Influenza, 3 deaths
Croft (19,814) C. E. Walker, M.D.	...	2,236	2,236	19.67	11.62	0.00	45.4	3	...	
Easingwold (70,208) E. B. Hicks, M.B.C.S., L.R.C.P.	...	10,214	10,360	22.10	14.76	0.48	69.8	...	2	1	2	9	9	...	Influenza, 3 deaths
Flaxton (30,309) A. Raines, M.D.	...	8,469	8,469	20.20	8.61	0.35	66.0	...	2	1	2	...	5	9	6	
Guisborough (50,754) W. W. Stanthorpe, M.D., D.P.R.	...	7,858	7,860	24.17	15.77	1.14	89.4	...	8	1	1	11	6	Influenza, 3 deaths
Helmley (51,598) J. F. Porter, M.D.	...	3,334	3,334	21.88	19.52	0.59	109.6	2	3	...	
Helmley (16,043) (Oswaldkirk District) J. F. Porter, M.D.	...	1,820	1,820	19.78	14.28	1.09	166.6	2	2	1	

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	Census, 1911.	Estimated to middle of 1913.																				
Kirbymoorside (58,681) T. Walsh Tetley, M.R.C.S., L.R.C.P.	4,870	4,870	21.14	11.90	0.00	77.6	5	Influenza, 1 death
Leyburn (51,202) G. Cockcroft, M.B., B.S.	6,808	6,808	16.81	18.16	0.00	47.1	3	Influenza, 4 deaths, Mumps, and Chicken Pox.
Malton (48,890) W. V. Shaw, M.A., M.B., B.CH.	6,190	6,195	16.30	14.68	1.29	79.8	...	1	1	2	4	12	1	Influenza, 1 death
Middlesbrough (11,048) H. Fawcett, M.D.	2,578	2,086	16.77	8.14	0.95	57.1	2	...	1	2	...	
Northallerton (68,850) J. A. Hutchinson, M.D.	7,745	7,777	17.87	19.63	0.90	86.3	1	1	2	1	2	10	3	Influenza, 5 deaths
Pickering (68,803) R. A. Scott, L.R.C.S., L.R.C.P.	6,458	6,458	20.74	14.24	0.30	67.1	1	1	1	3	4	Influenza, 7 deaths
Reeth (74,538) K. Want, L.R.C.P., L.R.C.S.	2,896	2,896	18.86	18.77	0.00	45.4	1	6	6	8	
Richmond (76,228) H. Williams, M.R.C.S., L.R.C.P.	8,082	8,082	21.65	11.38	0.49	91.4	...	1	2	1	...	1	8	...	Mumps

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	Census, 1911.	Estimated to middle of 1913.																											
Scarborough (60,225) G. J. B. Candler-Hope, M.B.	...	6,390	6,248	18.25	11.42	0.00	92.1	Yes	8	1	4	18	Influenza, 2 deaths
Startforth (97,402) J. C. Neligan, L.R.C.S., L.S.A.	...	4,929	4,997	21.01	11.10	0.20	95.2	...	1	Yes	8	3	8	
Stokeley (88,010) W. M. Yeoman, M.B.	...	12,114	12,114	22.20	18.45	0.82	78.0	1	1	2	1	2	...	3	1	...	Yes	18	16	2	...	3	16	6	Influenza, 9 deaths
Thirsk (64,024) W. G. MacArthur, M.B., CH.B.	...	12,793	12,793	20.63	18.60	0.54	79.5	1	4	1	...	1	Yes	36	7	2	...	4	14	...	Influenza, 4 deaths
Wath (16,997) T. Collier, M.B.O.S., L.R.C.P.	...	2,180	2,180	21.55	10.55	0.00	43.4	Yes	1	1	...	One case of human Anthrax
Whitby (89,000) J. B. Laverick, M.B., D.P.H.	...	8,501	8,550	18.47	13.68	0.93	38.0	1	6	1	1	...	Yes	6	29	5	...	1	