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XXVII—1915.

WEST RIDING COUNTY COUNCIL.

—•••—  
TWENTY-SEVENTH  
ANNUAL REPORT

OF THE

County Medical Officer,

1915.



—•••—  
Including an Abstract of the Annual Reports of the Medical  
Officers of Health for the Sanitary Districts  
within the Administrative County.

—•••—  
*Printed by Order of the Public Health and Housing Committee,  
19th February, 1917.*

—•••—  
Sanderson & Clayton, Printers, Wakefield.



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NOTE.—The Roman numerals refer to the Tables folded at the end.

## PREFACE.

It should be noted that the following pages make no pretence at a report, but form only a record to preserve the continuity of figures and comparisons.

AREA of Administrative County    ..    ..    1,654,895 acres.

CIVIL POPULATION, estimated at middle of  
1915    ..    ..    ..    ..    ..    1,442,650 persons.

SANITARY DISTRICTS, 151, namely :—11 Non-County Boroughs.

*(See Tables at end of Report).*

112 Other Urban Districts.

28 Rural Sanitary Districts.

The Vital Statistics for the year 1915, now under consideration, may be summarised as follows :—

	1915.
BIRTH RATE (Administrative County) .. .. .	22·8
Per 1000 estimated population, 1914.	
DEATH RATE .. .. .	15·0
Per 1000 estimated civil population.	
Zymotic Death Rate    „    ..    ..    ..	1·6
Phthisis Death Rate    „    ..    ..    ..	0·8
Respiratory Death Rate „    ..    ..    ..	2·9
INFANTILE MORTALITY, <i>i.e.</i> , Number of Deaths under one year per 1000 births.	112

**JAMES ROBT. KAYE,**

County Medical Officer.

Wakefield,  
December, 1916.

## PART I

## THE WORK OF THE BACTERIOLOGICAL LABORATORY.

January 1st to December 31st, 1915.

The total number of specimens examined in the laboratory during the year, including those from the County Boroughs of Dewsbury and Wakefield, was 16,197. The following table shows the number of specimens of different kinds examined during each month of 1915 :—

## MONTHLY RECORD OF SPECIMENS EXAMINED.

Month	Serum Reaction for Enteric Fever	Sputum for Tubercle Bacilli	Suspected Diphtheria	Miscellaneous	Total
January	55	343	905	204	1507
February ..	44	362	752	211	1369
March ..	46	408	626	310	1390
April ..	95	363	407	285	1150
May ..	76	364	470	270	1180
June ..	109	370	504	280	1263
July ..	320	346	666	300	1632
August ..	236	313	441	124	1114
September	256	274	538	240	1308
October ..	380	272	745	240	1637
November	59	252	956	239	1506
December	60	239	645	197	1141
Total ..	1736	3906	7655	2900	16197

The next table gives the figures for 1915 in comparison with those for the previous 5 years :—

## YEARLY RECORD OF SPECIMENS EXAMINED.

YEAR.	Serum Reaction for Enteric Fever	Sputum for Tubercle Bacilli	Suspected Diphtheria	Miscellaneous	Total
1910	751	842	6663	1880	10136
1911	1110	1130	7385	2492	12117
1912	687	1789	6255	2903	11634
1913	629	3500	9601	3165	16895
1914	706	4097	10985	3176	18964
1915	1736	3906	7655	2900	16197

There has been a decrease of 2,767 in the total number of specimens examined during the year 1915 as compared with the previous year. The decrease has taken place in all classes of specimens with the exception of those examined for the Serum Reaction of Enteric Fever, in which case there is a marked increase as the result of numerous special examinations for "carriers."

The number of specimens examined for the County Borough of Dewsbury was 712, and 1,125 specimens for the County Borough of Wakefield.

During the year 182 specimens were received which required biological examination.

A considerable number of specimens from soldiers were examined.

**Diphtheria.**—During the year 7,655 swabs were examined for the Diphtheria bacillus, a decrease of 3,330 compared with the number in the previous year. Medical Officers of Health and Practitioners submitted 6,148 specimens from suspected cases and convalescents, of which 1,881 were positive, and 1,384 from "contacts" of which 102 were positive.

The School Medical Officers submitted 164 swabs collected from suspected cases observed during routine School inspection and 10 of these were found to be positive.

The Central Staff collected 59 swabs in connection with School outbreaks of diphtheria and 3 of these were positive.

In 5 doubtful cases the organism was isolated and a pure culture tested for virulence; in 2 of these cases the organism proved to be virulent.

**Enteric Fever.**—Examinations for the Widal Reaction. During the year 1,736 specimens of blood were examined for the Widal Reaction and 346 were found to give a positive result. These specimens include not only samples examined for the diagnosis of enteric fever but also a large number examined as a preliminary step in the detection of "carriers." For the latter purpose 1,093 specimens were collected from the patients in one of the West Riding Asylums.

Examinations for the bacillus typhosus. The number of specimens examined for the Bacillus typhosus was 320 and these consisted chiefly of samples of urine and faeces from convalescent cases, suspected "carriers," and doubtful cases in which the Widal Reaction was negative. One hundred and sixty specimens of urine were examined and in ten the bacillus was found; a similar number of specimens of faeces were examined in 19 of which the bacillus was found.

One of the positive specimens of urine was from a female "carrier" discovered in 1911. Repeated examinations made

since that date have constantly shown the presence of the bacillus typhosus.

Three other positive specimens were from another female "carrier." Several cases of enteric fever occurred in the same household and on examining specimens from each of the inmates it was found that the mother, who had previously passed through an attack of enteric fever, was still excreting the bacillus typhosus in large numbers in the urine.

In the early part of the year a large number of specimens of blood were received from one of the West Riding Asylums and in a considerable number the result was positive, thus confirming the diagnosis of enteric fever. As the cases continued to occur in increasing numbers up till June, the County Sanitary Inspector and the County Bacteriologist visited the Asylum and accompanied by the Medical Superintendent made an investigation as to the cause of the outbreak. The cases were limited to the inmates of two blocks in the Asylum and the result of the inquiry pointed to the outbreak being caused by one or more "carriers." The drainage of the infected blocks was carefully examined and one or two minor defects were remedied on the advice of the County Sanitary Inspector. In order to deal with the outbreak it was decided to make a systematic search for "carriers" by first examining specimens of blood from all the patients in the infected blocks, and then to search for the bacillus typhosus in the urine and faeces of those giving a positive Widal Reaction. As the result of the investigation five "carriers" were discovered. When the first three "carriers" were found and isolated a marked diminution in the number of cases occurred and the outbreak quickly subsided.

The details of the examinations made in connection with the investigation were as follows:—Specimens of blood for diagnosis of enteric fever 123 of which 59 were positive, specimens of blood for detection of "carriers" 1,093 of which 125 were positive, samples of urine and faeces from suspected "carriers" 178 of which 9 were positive, and 50 samples of urine and faeces from convalescent cases of which 2 were positive.

It is worthy of notice that in the course of searching for the bacillus typhosus three dysentery "carriers" (Flexner type) were found. These "carriers" are regarded as the cause of the outbreaks of dysentery which so frequently occur in Asylums.

Five samples of milk and one specimen of pus were examined for the bacillus typhosus with negative result.

**Paratyphoid Fever.**—One specimen of urine and one of faeces were examined and the faeces was found to contain *B. paratyphosus* B. which causes a disease clinically indistinguishable from enteric fever.

**Dysentery.**—One specimen of faeces was examined and found to contain the dysentery bacillus—Shiga type.

**Tuberculosis.**—The number of specimens of sputum examined for tubercle bacilli was 3,906 and in 1,108 the bacillus was found. Medical Officers of Health and Practitioners submitted 1,761 specimens, the Tuberculosis Staff 2,014 (from Sanatoria 660 and from Dispensaries 1,354), School Medical Officers 2, and 129 specimens were received from Hospitals.

*Urine.* Seventy specimens of urine from suspected cases of tuberculosis of the kidney and bladder were examined for the tubercle bacillus and in 15 of these the bacillus was found. In each of the positive cases the result of the microscopical examination was confirmed by the biological test.

*Pleural Fluid.* Ten specimens of pleural fluid were examined and three were found to be tuberculous.

*Other Specimens.* The remaining specimens examined for the tubercle bacillus were 7 of pus of which 2 were positive, 4 of faeces, 1 of kidney and 1 of ascitic fluid.

**Bovine Tuberculosis.**—*Milk.* Ten samples of milk were examined of which 7 were from individual cows and 3 were mixed samples; in 1 sample from an individual cow tubercle bacilli were found.

*Glands.* Two specimens of glands from suspected animals were examined and both were found to contain tubercle bacilli.

**Ringworm.**—The total number of specimens of hairs and scales examined for the diagnosis of ringworm was 2,171 and a positive result was obtained in 1,236. Medical Officers of Health and Practitioners submitted 1,294 of which 589 were positive, the School Staff submitted 712 of which 532 were positive and the Central Staff submitted 165 of which 115 were positive.

**Anthrax.**—The total number of specimens examined for the diagnosis of anthrax was 25 of which 21 were from the human subject and 4 from animals.

*Human Anthrax.* In 8 of the specimens from human sources the bacillus was found to be present and the particulars of these cases were as follows :—

1. Female, aged 15. Hanker in Carpet Mill.
2. Male, aged 27. Twister. Pustule on forearm.
3. Male, aged 21. Rag Blender. Pustule on right eyebrow.
4. Female, aged 23. Twister. Pustule on wrist.
5. Male, aged 35. Overlooker at Mill.
6. Male, aged 49. Wool Blender. Pustule on forehead.
7. Male, aged 19. Woollen Fettler. Pustule on right cheek.
8. Male, —. Butcher. Malignant pustule on left forearm. This man developed the pustule after dressing a beast which died suddenly on a farm, and the nature of the disease in the animal was only suspected when he developed anthrax.

**Animal Anthrax.**—Two specimens of blood and 2 of spleen from suspected animals were examined and 1 specimen of spleen was found to contain anthrax bacilli.

**Cerebro-Spinal Fever.**—Thirty-five specimens of cerebro-spinal fluid were examined for the presence of the meningococcus. In three of the specimens the examination resulted in a definite diagnosis of cerebro-spinal fever, the organism being found both by microscopical and cultural examination. In 8 other specimens tubercle bacilli were found which proved that the patients were suffering from tubercular meningitis, a disease in which the symptoms very closely resemble those of cerebro-spinal fever.

Sixty-three swabs from the throats of persons in contact with cases of cerebro-spinal fever were examined and in 5 the meningococcus was found.

**Ophthalmia Neonatorum.**—Twelve specimens of discharge from the eyes of infants were examined for the gonococcus with positive result in 4 cases.

**Gonorrhoea.**—Twenty-two specimens of discharge and 2 of urine were examined and in 9 cases the gonococcus was found.

**Food Poisoning.**—Ten specimens were examined for organisms of the food-poisoning group. These were 1 sample of faeces, 1 sample of urine, and 8 samples of viscera from fatal cases and were examined at the request of West Riding Coroners. All the specimens gave negative results.

**Tissue for Histological Examination.**—Nine specimens were examined histologically, namely:—2 specimens of breast, 2 of testes, 2 of skin, 1 of omentum, 1 of lung and 1 of uterus. Two of the specimens were found to be cancerous.

**Water.**—Fourteen samples of water were examined of which 10 were found to be pure and 4 polluted. One sample of bath water was examined to test the effect of purification treatment.

The remaining specimens were urines for bacillus coli, albumen, sugar, casts, lead, etc., 15, pus for various organisms 15, blood for cytological examination and for organisms 8, samples of faeces for parasites and for occult blood 5, a specimen of syphilitic liver of an infant for spirochaetes, and clothing examined for blood stains at the request of one of the West Riding Coroners.

LIST OF THE SANITARY DISTRICTS IN THE WEST RIDING SHOWING THE  
NUMBER OF SPECIMENS RECEIVED FROM EACH DURING 1915.

<i>Urban Districts:—</i>			Horsforth .. ..	47	Stanley .. ..	15
Altofts .. ..	8		Hoyland Nether .. ..	33	Stocksbridge .. ..	7
Ardsley .. ..	16		Hoylandswaine .. ..	1	Swinton .. ..	8
Ardsley, East and West	36		Hunsworth .. ..	—	Thurlstone .. ..	20
Baildon .. ..	3		Ilkley .. ..	114	Thurnscoe .. ..	20
Barkisland .. ..	1		Keighley B. .. ..	137	Thurstonland .. ..	5
Barnoldswick .. ..	30		Kirkburton .. ..	9	Tickhill .. ..	7
Batley B. .. ..	188		Kirkheaton .. ..	1	Todmorden B. .. ..	32
Bentley-with-Arksey	9		Knaresborough .. ..	22	Wakefield C. .. ..	935
Bingley .. ..	161		Knottingley .. ..	41	Wath-upon-Deerne .. ..	46
Birkenshaw .. ..	—		Lepton .. ..	17	Whitley Upper .. ..	—
Birstal .. ..	14		Linthwaite .. ..	9	Whitwood .. ..	6
Bolton-upon-Deerne	57		Liversedge .. ..	42	Wombwell .. ..	140
Brighouse B. .. ..	98		Luddendenfoot .. ..	—	Worsborough .. ..	55
Burley-in-Wharfedale	10		Marsden .. ..	22	Yeadon .. ..	12
Calverley .. ..	1		Meltham .. ..	2		
Castleford .. ..	79		Methley .. ..	3		
Clayton .. ..	48		Mexborough .. ..	9		
Clayton West .. ..	9		Midgley .. ..	2	<i>Rural Districts:—</i>	
Cleckheaton .. ..	11		Mirfield .. ..	162	Barnsley .. ..	—
Cudworth .. ..	29		Monk Bretton .. ..	5	Bishopthorpe .. ..	—
Darfield .. ..	18		Morley B. .. ..	71	Bowland .. ..	—
Darton .. ..	20		Mytholmroyd .. ..	18	Doncaster .. ..	89
Denby and Cumberworth	5		New Mill .. ..	20	Goole .. ..	—
Denholme .. ..	—		Normanton .. ..	59	Great Ouseburn .. ..	107
Dewsbury B. .. ..	506		Oakworth .. ..	51	Halifax .. ..	8
Dodworth .. ..	6		Ossett B. .. ..	26	Hemsworth .. ..	100
Doncaster B. .. ..	697		Otley .. ..	64	Hunslet .. ..	29
Drighlington .. ..	10		Oxenhope .. ..	8	Keighley .. ..	2
Earby .. ..	37		Penistone .. ..	43	Kiveton Park .. ..	34
Elland .. ..	40		Pontefract B. .. ..	75	Knaresborough .. ..	10
Emley .. ..	12		Pudsey B. .. ..	4	Pateley Bridge .. ..	11
Farnley Tyas .. ..	—		Queensbury .. ..	24	Penistone .. ..	6
Farsley .. ..	8		Rawdon .. ..	24	Pontefract .. ..	33
Featherstone .. ..	58		Rawmarsh .. ..	26	Ripon .. ..	5
Flockton .. ..	18		Ripon C. .. ..	105	Rotherham .. ..	39
Garforth .. ..	22		Rishworth .. ..	2	Sedbergh .. ..	13
Gildersome .. ..	5		Rothwell .. ..	67	Selby .. ..	4
Golcar .. ..	6		Royston .. ..	2	Settle .. ..	39
Gomersal .. ..	26		Saddleworth .. ..	16	Skipton .. ..	25
Goole .. ..	122		Scammonden .. ..	—	Tadcaster .. ..	24
Greasborough .. ..	—		Selby .. ..	14	Thorne .. ..	27
Greetland .. ..	32		Shelf .. ..	12	Todmorden .. ..	2
Guiseley .. ..	4		Shelley .. ..	2	Wakefield .. ..	41
Gunthwaite and Ingbirchworth	—		Shepley .. ..	1	Wetherby .. ..	378
Handsworth .. ..	40		Shipley .. ..	56	Wharfedale N. .. ..	2
Harrogate B. .. ..	308		Silsden .. ..	31	Wharfedale S. .. ..	2
Haworth .. ..	27		Skelmanthorpe .. ..	5	Wortley .. ..	77
Hebden Bridge .. ..	74		Skipton .. ..	44	<i>Hospitals, &amp;c.</i> .. ..	7
Heckmondwike .. ..	20		Slaithwaite .. ..	18	<i>School Medical</i> .. ..	
Hipperholme .. ..	17		South Crosland .. ..	6	<i>Inspectors</i> .. ..	767
Holme .. ..	—		Southowram .. ..	11	<i>Central Staff</i> .. ..	224
Holmfirth .. ..	26		Sowerby .. ..	13	<i>Miscellaneous</i> .. ..	299
Honley .. ..	21		Sowerby Bridge .. ..	51		
Horbury .. ..	55		Soyland .. ..	4	Total No. of Specimens examined bacteriologically	16197
			Springhead .. ..	3		
			Stainland-with-Old Lindley	13		

## PART II.

### TREATMENT OF TUBERCULOSIS.

#### LIST OF STAFF.

*Chief Tuberculosis Officer* . . . **Thompson Campbell, M.D., C.M.**

Dispensary Areas.	District Tuberculosis Officer.
Barnsley .. ..	Walter C. Rivers, M.R.C.S., D.P.H.
Dewsbury .. ..	Thomas Priestley, M.R.C.S., L.R.C.P.
Doncaster .. ..	
Huddersfield ..	*Daniel Stewart, M.D., D.P.H.
Keighley .. ..	*Edward A. Wilson, M.D., B.S.
Otley .. ..	Gerrard A. Crowley, B.A., M.D., B.Ch.
Pontefract .. ..	Dudley Mackenzie, M.D., Ch.B.
Rotherham .. ..	William Barr, M.D., D.P.H., D.Sc.
Sowerby Bridge ..	George M. B. Liddle, M.B., D.P.H.
Wakefield .. ..	Peter R. McNaught, M.B., D.P.H.

\* These Members of the Staff were on Military Service during 1915.

During the past year the work of the Tuberculosis Scheme has naturally been carried on under difficulties, but in spite of the depletion of the Staff every effort has been made to prevent any relaxation of the endeavour to afford the best possible treatment to the sufferers from tuberculosis. There has been little curtailment of the opportunities for dispensary treatment, as in the cases where a branch has been temporarily closed the Council has paid the railway fares of patients to the nearest centre; and with an increased number of Sanatorium and hospital beds now available it will be possible to grant an extended period of Institutional treatment. It is an unfortunate outcome of this period of stress that the number of persons who present themselves in an advanced condition of disease has increased, and this is in great part due to the increased pressure of work and unduly long hours of labour both in the case of men and women. While a knowledge of the facilities available for treatment in the West Riding is extending, these are not so universally known as might be expected from the fact that the scheme has been in operation since 1912; and although early diagnosis of the disease is being secured in a large number of cases, an improvement in this respect can still be attained.

#### Difficulties Encountered.

*Compulsory Removal and Detention.* An important factor in the attempt to secure the isolation of advanced cases is the desire of some patients to return home when they find there

is no prospect of improvement in their condition, and as this is likely to cause dissemination of infection when there is insufficient accommodation in the home to allow of isolation, the question of compulsory detention in a Hospital forces itself upon the notice of the Public Health Authorities. The proposal to remove from home and detain patients compulsorily, particularly in a chronic disease like tuberculosis of the lungs, may be expected to meet with opposition; but under certain circumstances it is against the best interests of the patients as well as of the relatives with whom they would be brought into contact, to permit them to return to a dwelling where they could not receive the necessary attention and nursing. So long as persons in an advanced stage of tuberculosis can without hindrance return to a home where isolation cannot be carried out, and under conditions which will almost certainly lead to other members of the family being infected, the attempt to stem the torrent of the disease will be ineffectual. It may at first sight appear to savour of inhumanity to separate parents from thier children, but it cannot be considered humane to allow parents to infect their children, or to permit a helpless patient who requires constant nursing attention to return to a home where it is impossible to obtain this. Apart from such cases compulsory detention is urgently called for in the case of patients who persist, in spite of instruction and warning, in expectorating carelessly—that is, elsewhere than into a special sputum vessel. Such individuals should be summarily dealt with, as the harm they can do in spreading infection is incalculable.

*Marriage of Unfit.* Another obstacle which obtrudes itself on the notice of all who are attempting to stamp out tuberculosis is the marriage of persons who were at the time, or had recently been, suffering from the disease; and although the subject is hedged about with difficulties, it should be grappled with both in the interests of the contracting parties and of the possible issue of such a union. The certainty that the offspring of such a marriage will, at the best, enter on the struggle of life handicapped by an enfeebled body, with the likelihood of an early breakdown and much suffering, should constitute a sufficient reason for opposing the marriage of those who are obviously unfit.

*Failure to complete Treatment.* There is still at times a difficulty in persuading patients under treatment in a Sanatorium to remain until their health is quite restored, although every effort is made to impress the necessity upon them both before and after admission, by means of leaflet and exhortation. "Domestic reasons" in the case of mothers, and "the necessity of returning to work to support a family" in the case of fathers, are the chief excuses for a too-early departure from a Sanatorium, but in other instances "failure to realise the serious nature of the disease" is the cause.

*Effect of War.* Many of the patients who received treatment prior to the outbreak of the War, have joined His Majesty's Forces; and while some whose vigour had been restored have given useful service, others whose patriotic fervour has outrun their physical vigour have broken down and again come under treatment. Broken sleep, undue physical strain, and at times unavoidable shortage of rations, with insufficiently ventilated quarters and over-exposure have contributed to break down the vigour even of some who were previously in good health. The civil population has also suffered from the strain associated with such abnormal times, and symptoms indicative of the stealthy onset of tuberculosis, which would have had due weight given to them under ordinary circumstances, have been ignored often until the door of hope has closed.

*Extra Nourishment.* With the high prices ruling for articles of food, the difficulty of obtaining a sufficiently nourishing dietary has been experienced in many a tuberculous household; and the allowance up to 6s. weekly granted in necessitous cases to insured persons for extra nourishment has been of considerable benefit; 167 patients have received this grant from the West Riding Insurance Committee during the year.

### DISPENSARY TREATMENT.

The magnitude of the work undertaken by the District Tuberculosis Officers in examining, supervising and treating patients at the Dispensaries is very considerable, and when the distances to be traversed are taken into account, the total number of cases dealt with demonstrates that the scheme has been established on a basis which meets the needs of the bulk of the population in the area, although in more normal times the question of some additional facilities in certain districts will arise. Thirty-four dispensaries have been in operation during the past twelve months, and although the work was handicapped by the absence of Dr. E. A. Wilson and Dr. D. Stewart on Military service, the average aggregate weekly attendances numbered 1,130, with a maximum of 1,143. The praiseworthy example of the Hemsworth Rural District Council, in providing conveyances to enable patients to attend for treatment who could not otherwise do so, has not yet been followed by other Authorities; but such assistance is to be commended as a feeder for dispensaries in less populous districts where means of locomotion are inadequate. Among the advantages derived from the work performed at the dispensaries are:—

- (a) detection of the disease in its early stage in cases sent by the medical attendant for diagnosis, or in those who have been in close contact with persons known to be suffering from tuberculosis;
- (b) advice regarding the disposal of expectoration and means for preventing infection;
- (c) continued treatment of patients returned from a Sanatorium—if this should still be required, or supervision of those who are able to return to work;
- (d) treatment of forms of tuberculosis other than pulmonary, in so far as such

cases can be dealt with in a non-residential Institution ; (e) treatment calculated to relieve the sufferings of patients in the later stages of the malady. At two dispensaries treatment by artificial pneumo-thorax has been carried out with encouraging results in some cases ; and altogether the value of the work accomplished throughout the area is worthy of the campaign which has called the scheme into being.

Valuable assistance has been rendered by the Nurses not only in connection with the routine work at the dispensaries, but by following the patients to their homes and giving aid in carrying out the instructions of the Tuberculosis Officers, and in endeavouring to make the best of the home conditions. The qualities of tact and firmness are frequently called into play in inducing some households to faithfully submit to the open-air conditions which are necessary for their well-being ; but as a rule the advice of the Nurses is welcomed. It is necessary again to state that it is quite impossible for the dispensary Nurses to give ordinary nursing care to patients in their homes, as the question of home-nursing has been raised ; but in any case the casual attention of trained Nurses though resident in the patients' neighbourhood, would not meet the needs, and the aim should rather be to remove patients to hospitals where they can receive constant attention, than to attempt to give official sanction to a course detrimental to the good of a whole household.

Average weekly No. of Visits paid by Nurses, 307.

TABLE I.

Diagnosis of the Cases newly met with at West Riding Dispensaries during 1915.

DISPENSARY AREA.	SEX.	PREVIOUSLY NOTIFIED CASES, AND SUSPECTED CASES OTHER THAN HOUSE CONTACTS.												HOUSE CONTACTS.												TOTALS.												
		Found to be suffering from Pulmonary Tuberculosis.				Found to be suffering from Non-Pulmonary Tuberculosis.				Found to be Non-Tuberculous. Undiagnosed and remaining under observation.				Found to be suffering from Pulmonary Tuberculosis.				Found to be suffering from Non-Pulmonary Tuberculosis.				Found to be Non-Tuberculous. Undiagnosed and remaining under observation.																
		Ins.			Dep.	Other.	Ins.			Dep.	Other.	Ins.			Dep.	Other.	Ins.			Dep.	Other.	Ins.			Dep.	Other.	Ins.			Dep.	Other.							
		Ins.	Dep.	Other.	Ins.	Dep.	Other.	Ins.	Dep.	Other.	Ins.	Dep.	Other.	Ins.	Dep.	Other.	Ins.	Dep.	Other.	Ins.	Dep.	Other.	Ins.	Dep.	Other.	Ins.	Dep.	Other.	Ins.	Dep.	Other.							
Barnsley .. ..	M. F.	50 18	18 36	2 6	7 2	23 21	3 3	11 4	14 14	1 1	2 1	2 3	— 1	— —	3 6	— —	— —	— —	— —	15 13	— —	— —	— —	— —	50 18	21 42	2 6	7 2	23 21	3 3	11 4	29 27	1 1	2 1	2 3	— 1		
Dewsbury .. ..	M. F.	82 53	38 60	1 8	4 11	11 2	1 3	1 1	1 2	1 3	— 2	2 3	— —	— —	1 1	7 4	2 1	— —	— —	4 10	30 36	— 3	— —	— —	— —	83 54	45 64	3 9	4 8	11 21	1 1	5 12	31 39	1 4	5 7	20 23	2 2	
Doncaster .. ..	M. F.	47 14	15 30	4 3	8 2	21 13	— 2	— —	8 1	— —	— —	— —	— —	— —	2 3	1 —	— —	— —	— —	4 1	2 4	— —	— —	— —	— —	47 14	17 33	5 3	8 2	21 13	— 2	4 1	2 12	— 1	— —	— —	— —	
Huddersfield ..	M. F.	40 25	21 26	3 3	1 2	8 8	— —	10 4	5 7	1 1	— 2	1 2	— 2	— —	1 1	— 5	— —	— —	— —	2 2	3 13	— —	— 3	5 5	1 2	40 26	22 31	1 3	1 2	8 8	— —	12 6	8 20	1 1	— 5	6 7	1 2	
Keighley .. ..	M. F.	51 25	4 10	— —	1 5	5 13	1 1	11 4	5 9	— —	3 2	1 3	— —	— —	1 1	— 2	— —	— —	— —	3 1	8 7	— —	— —	— —	— —	51 26	5 12	1 —	5 5	5 13	1 1	14 15	13 16	— —	3 2	1 3	— —	
Otley .. .. .	M. F.	54 36	17 36	3 4	2 7	11 3	— 1	14 14	12 25	4 2	3 4	— 3	— —	— 1	— 3	— —	— —	— —	— —	3 8	39 46	4 4	— 1	— —	— —	54 37	17 39	3 4	2 7	11 3	— 1	17 22	51 71	8 6	3 5	3 5	— —	
Pontefract .. .	M. F.	73 12	22 43	5 5	4 1	26 22	3 1	31 11	12 12	— —	— 1	— 2	— —	— —	2 2	— —	— —	1 —	— —	— —	22 42	— —	— —	— —	— —	73 12	24 45	5 5	4 1	26 23	3 1	31 11	34 54	— —	— 1	2 2	— —	
Rotherham .. .	M. F.	66 19	20 48	11 8	2 2	16 17	3 —	33 6	17 20	10 4	2 1	4 5	1 3	6 4	6 14	— 1	— —	2 1	— —	3 2	16 23	3 8	— —	— 1	— —	72 23	26 62	11 9	2 2	18 18	3 —	36 8	33 43	13 12	2 1	4 6	1 3	
Sowerby Bridge	M. F.	36 35	13 15	1 —	3 4	11 6	— —	3 —	1 —	— 1	— —	— —	— —	2 5	15 13	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	38 40	28 28	1 —	3 4	11 6	— —	3 1	1 —	— —	— —	— —	— —	
Wakefield .. .	M. F.	67 34	18 69	5 10	9 3	27 28	1 1	38 4	10 46	3 2	1 —	— —	2 —	5 4	8 21	— 2	1 —	7 13	— 1	12 2	19 30	— —	— —	— —	2 —	72 38	26 90	5 12	10 3	34 41	1 2	50 6	29 76	3 2	— —	1 —	— —	2 —
Totals .. .. .	M. F.	566 271	186 373	34 47	45 36	159 152	12 10	152 49	77 145	20 12	11 13	10 21	3 4	14 17	45 73	3 4	1 —	9 15	— 1	31 26	154 214	7 15	— 4	5 6	3 2	580 288	231 446	37 51	46 36	168 167	12 11	183 75	231 359	27 27	16 22	33 47	5 8	

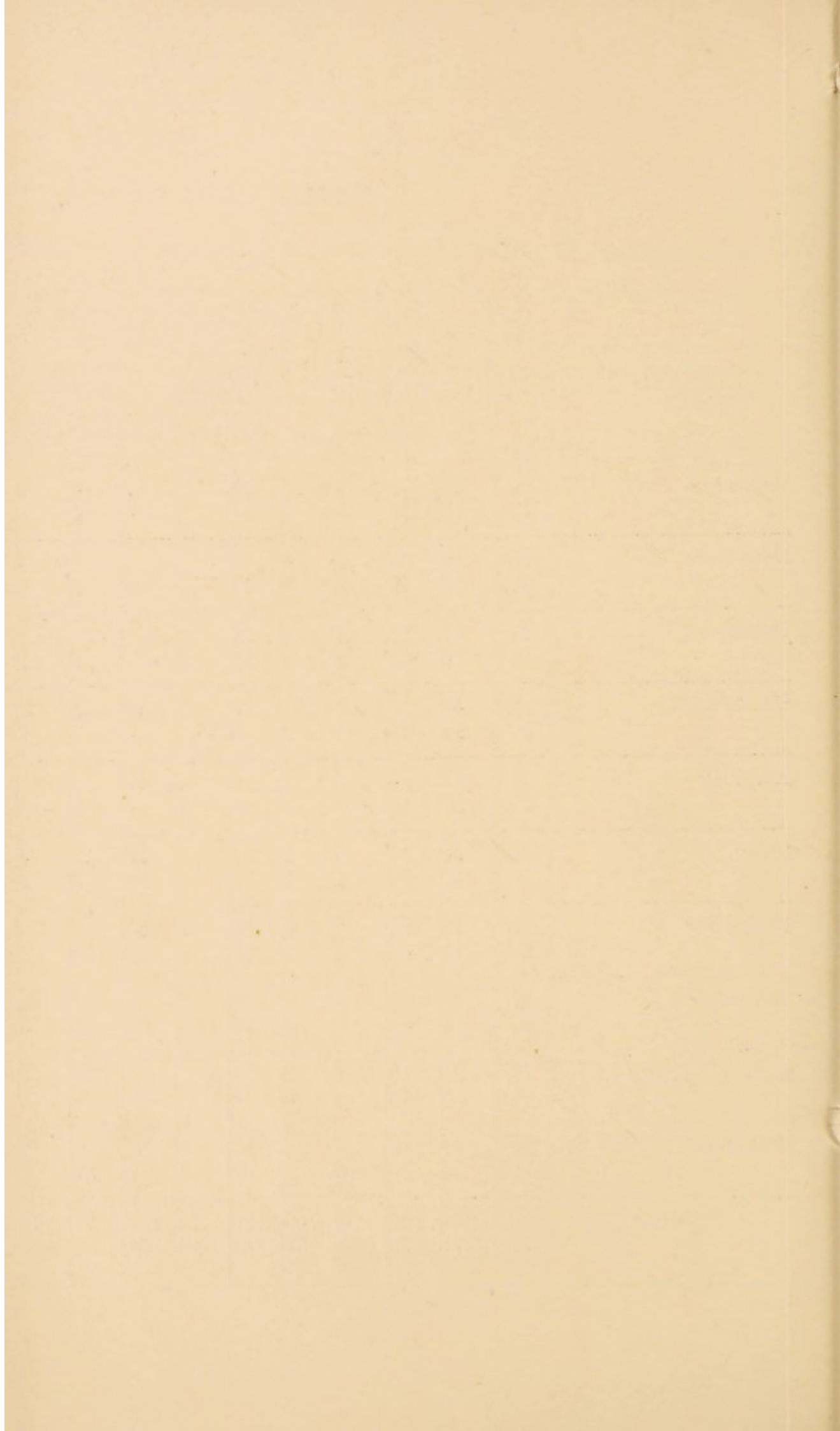
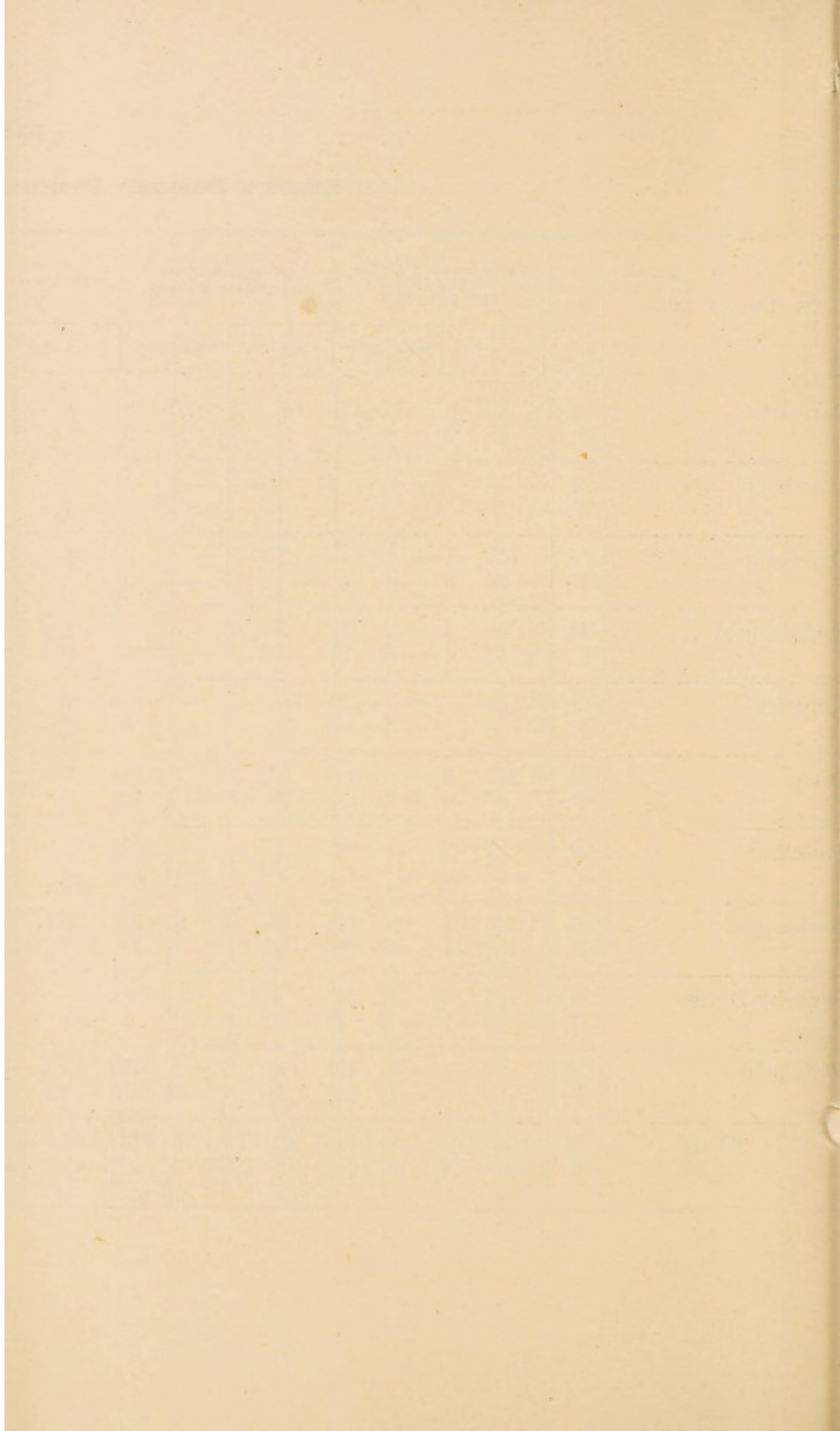


TABLE II.

## Results of Dispensary Treatment during 1915 (Pulmonary Tuberculosis).

DISPENSARY AREA.	Sex.	Cases discharged with "Working Capacity fully restored."				Working Capacity incompletely restored.				Discharged without restoration of Working Capacity.				Lost sight of or treat- ment discontinued for other than Medical Reasons				Deaths.				Cases remaining under treatment at end of 1915.				Total No. of cases receiving treatment during 1915.			
		Ins.	Dep.	Other.	Total.	Ins.	Dep.	Other.	Total.	Ins.	Dep.	Other.	Total.	Ins.	Dep.	Other.	Total.	Ins.	Dep.	Other.	Total.	Ins.	Dep.	Other.	Total.	Ins.	Dep.	Other.	Total.
Barnsley .. ..	M.	8	8	1	17	14	3	1	18	3	1	—	4	5	2	—	7	8	1	—	9	81	28	2	111	144	34	6	137
	F.	4	2	—	6	1	7	1	9	1	3	—	4	—	3	1	4	1	4	—	5	13	32	4	49	43	66	10	119
Dewsbury .. ..	M.	—	—	—	—	1	—	—	1	1	—	—	1	14	14	—	28	16	1	1	18	72	37	—	109	163	59	7	229
	F.	—	—	—	—	—	—	—	—	—	—	—	—	11	27	—	38	5	6	1	12	53	56	6	115	130	103	10	243
Doncaster .. ..	M.	10	1	—	11	3	—	—	3	18	2	2	22	16	—	—	16	2	—	—	2	9	17	4	30	122	30	8	160
	F.	1	3	—	4	—	3	—	3	8	2	—	10	—	7	2	9	—	3	—	3	10	30	1	41	33	82	5	120
Huddersfield ..	M.	4	3	—	7	5	1	—	6	27	1	1	29	12	9	—	21	3	1	—	4	24	31	—	55	122	63	2	187
	F.	5	4	—	9	5	1	—	6	8	1	1	10	6	21	—	27	1	5	—	6	26	39	4	69	83	97	6	186
Keighley .. ..	M.	3	—	—	3	18	1	—	19	7	—	—	7	5	—	—	5	4	—	—	4	32	4	1	37	124	7	1	132
	F.	—	—	—	—	8	—	—	8	5	—	—	5	2	—	—	2	3	1	—	4	20	15	1	36	60	19	1	80
Otley .. ..	M.	29	6	—	35	9	1	1	11	11	—	—	11	11	1	1	13	7	—	—	7	39	25	—	64	205	41	8	254
	F.	9	6	—	15	6	4	—	10	6	2	—	8	4	1	1	6	4	3	—	7	31	53	6	90	105	102	16	223
Pontefract .. ..	M.	5	3	—	8	12	—	—	12	19	2	—	21	12	3	—	15	2	—	—	2	57	17	6	80	183	27	6	216
	F.	6	5	—	11	3	7	1	11	4	7	1	12	1	8	1	10	—	—	—	—	9	40	4	53	39	100	7	146
Rotherham .. ..	M.	34	28	5	67	19	10	2	31	29	3	1	33	15	5	17	37	5	—	—	5	21	10	4	35	291	124	48	463
	F.	15	41	4	60	7	27	1	35	7	17	4	28	3	10	11	24	—	2	—	2	9	27	2	38	87	273	44	404
Sowerby Bridge ..	M.	18	5	1	24	—	—	—	—	—	—	—	—	2	1	—	3	6	1	—	7	22	14	—	36	89	32	4	125
	F.	6	1	—	7	1	1	—	2	—	—	—	—	1	3	—	4	6	2	—	8	14	9	1	24	82	39	1	122
Wakefield .. ..	M.	25	14	1	40	11	2	—	13	13	1	1	15	8	5	—	13	2	—	—	2	68	34	9	111	227	84	14	325
	F.	16	15	1	32	3	5	—	8	9	8	1	18	3	9	1	13	1	1	—	2	28	78	11	117	104	173	25	302
Totals .. ..	M.	136	68	8	212	92	18	4	114	128	10	5	143	100	40	18	158	55	4	1	60	425	217	26	668	1670	501	104	2228
	F.	62	77	5	144	34	55	3	92	48	40	7	95	31	89	17	137	21	27	1	49	213	379	40	632	766	1054	125	1945



**Non-Pulmonary Tuberculosis.**—Analysis of new cases examined at the Dispensaries in 1915 :—

Lymphatic Glands	..	..	..	..	265
Skin and Subcutaneous Tissue	..	..	..	..	27
Bone and Joints	..	..	..	..	92
Internal Organs	..	..	..	..	66
Total	..	..	..	..	450

**Results of Dispensary Treatment in 1915.**—(Non-Pulmonary Tuberculosis) :—

Cases discharged fit for work or local condition cured	..	..	..	..	92
Discharged "Improved"	..	..	..	..	99
Discharged without improvement or worse	..	..	..	..	47
Cases lost sight of, or treatment discontinued for other than Medical reasons	..	..	..	..	61
Deaths	..	..	..	..	16
Cases still under treatment at end of 1915	..	..	..	..	354
Total No. of Cases under treatment	..	..	..	..	669

### SANATORIUM TREATMENT.

TABLE III.

(a) No. of Patients Admitted to Sanatoria during 1915 :—

Sanatorium.	Insured Persons.		Dependants on Insured Persons.				Non-Insured Persons.				Total.
	Men.	Women.	Men.	Women.	Boys.	Girls.	Men.	Women.	Boys.	Girls.	
Middleton ..	22	21	—	11	1	1	6	3	—	—	65
Cardigan ..	225	—	2	—	11	—	4	—	—	—	242
Balby ..	31	—	—	—	2	—	2	—	—	—	35
Morton Banks	—	84	—	49	—	11	—	9	—	3	156
Brierley Gap ..	—	25	—	10	—	2	—	2	—	1	40
Miscellaneous	7	5	—	1	—	2	—	1	—	—	16
Totals ..	285	135	2	71	14	16	12	15	—	4	554

## (b) No. of Patients discharged from Sanatoria during 1915 :—

Sanatorium.	Insured Persons.		Dependants on Insured Persons				Non-Insured Persons.				Total Discharges.	Average period of residence per patient (days).
	Men.	Women.	Men.	Women.	Boys.	Girls.	Men.	Women.	Boys.	Girls.		
Middleton	4	5	—	4	—	1	—	1	—	—	15	27
Cardigan	223	—	2	—	10	—	7	—	—	—	242	74
Balby ..	46	—	—	—	2	—	2	—	—	—	50	71
Morton Banks ..	—	93	—	51	—	14	—	12	—	1	171	76
Brierley Gap ..	—	29	—	11	—	2	—	3	—	1	46	73
Miscellaneous	8	8	—	1	—	2	—	1	—	—	20	62
Totals ..	281	135	2	67	12	19	9	17	—	2	544	73

## HOSPITAL TREATMENT.

TABLE IV.

## (a) No. of Patients Admitted to Hospital during 1915 :—

INSTITUTION.	Insured Persons.		Dependant on Insured Persons.				Non-Insured Persons.				Total.
	Males.	Females	Men.	Women.	Boys.	Girls.	Men.	Women.	Boys.	Girls.	
Rothwell ..	—	11	—	10	—	—	—	1	—	2	24
Dean Head ..	26	—	—	—	—	—	4	—	—	—	30
Morton Banks	—	14	—	12	—	1	—	2	—	—	29
Eldwick ..	—	—	—	—	17	17	—	—	1	3	38
Totals ..	26	25	—	22	17	18	4	3	1	5	121

## (b) No. of Patients Discharged from Hospitals during 1915 :—

Institution.	Insured Persons.		Dependant on Insured persons.				Non-Insured Persons.				Total Discharges.	Average duration of residence per patient (Days).
	Male.	Female.	Men.	Women.	Boys.	Girls.	Men.	Women.	Boys.	Girls.		
Rothwell	—	8	—	10	—	1	—	2	—	—	21	133
Dean Head	25	—	—	—	1	—	4	—	1	—	31	160
Morton Banks ..	—	7	—	7	—	1	—	—	—	—	15	66
Eldwick ..	—	—	—	—	12	7	—	—	1	1	21	130
Totals ..	25	15	—	17	13	9	4	2	2	1	88	130

During the two preceding years, owing to the limited accommodation in "Hospitals," a considerable number of patients have been recommended for Sanatorium treatment by the District Tuberculosis Officers although not in the earlier stages of the disease; but during 1915 the classification has been more sharply defined, and only the patients in whose cases there appeared to be a possibility of restoring the working capacity have been included in the results of Sanatorium treatment, while the others have been classified as "Hospital" cases and the results of treatment in them separately tabulated. Thus, while only one-third of the cases classified as under Sanatorium treatment last year were in the earliest stage, on this occasion more than one-half are so designated.

Among the **special means of treatment** under trial are :—

- (a) Artificial pneumo-thorax, by which the attempt is made to compress the affected lung with gas, or each lung in turn, in order that re-accumulation of discharge may be prevented, the absorption of toxæmic products lessened, and the obliteration of cavities secured by bringing their walls into apposition.
- (b) Inhalations in appropriate cases.
- (c) Tuberculin administration in a limited number of selected cases.

The first of these has the most noticeable effect, for, when successfully accomplished, immediate and obvious improvement is apparent not only to the physician but to the patient, but in the two latter means of treatment it is more difficult to apportion the degree of improvement which may be indisputably attributed to them.

The ceremony of opening the Sanatorium erected by the County Council at Middleton-in-Wharfedale, near Ilkley, was performed by County Alderman T. Benson P. Ford, on 10th November, 1915, and this has placed the first block of 100 beds at the disposal of the Committee. In spite of the difficulty in securing labour to carry on the building operations, work has been proceeding on the second block also—though with considerable delay.

The present Report includes only a few cases received into the new Institution, but good results may be looked for when the full advantage of the special provision now available is reaped.

With the development of the work it becomes evident that a still larger number of beds than the 300 in contemplation will be required to meet the needs of the area, and eventually a further 200 beds will be probably called for if the isolation and treatment of cases in the advanced stage of the disease are to be adequately provided for.

### Sanatorium Results.

In tabulating the "immediate results of treatment in Sanatoria," it must be explained that these are stated according to the opinion formed at the date of discharge, and that time must elapse before they can be tested. Unfortunately, owing to the clerical staff being called up for Military Service, it has not been possible to send out the usual enquiries to enable the information regarding the "After History" to be obtained for this report.

The classification adopted is the Turban-Gerhardt notation, and is shortly defined thus :—

Class I. Including the cases in which the disease is limited in extent, and of slight severity.

Class II. Cases more extensive, but still of moderate severity.

Class III. Cases with a considerable amount of lung tissue involved or with considerable excavation.

The heading "Working capacity fully restored" implies the expectation that the patient's ability to work will be maintained.

The Heading "Working capacity temporarily restored" means that the patient is able to resume work, but that there is a probability of a relapse occurring.

The heading "Improved" denotes that an improvement in the patient's general condition and in the state of the lungs has been secured, but that the working capacity is not restored.

TABLE V.  
Immediate Results of Sanatorium Treatment (1915).

Sanatorium.	Class.	Result of Sputum Examination.	Working capacity fully Restored.	Working capacity temporarily Restored.	Much Improved	Moderately Improved	Condition Unchanged or Worse.	Total.	Average gain in weight.
Cardigan ..	I.	Tubercle Bacilli found ..	—	2	2	—	—	Class I.— 72 (45·5%)	11-lbs. 11-ozs.
		Tubercle Bacilli not found	31	24	3	8	2		
	II.	Tubercle Bacilli found ..	—	3	12	2	2	Class II.— 72 (45·5%)	
		Tubercle Bacilli not found	6	25	7	15	—		
	III.	Tubercle Bacilli found ..	—	7	—	—	—	Class III. 14 (8·8%)	
		Tubercle Bacilli not found	—	4	3	—	—		
Morton Banks	I.	Tubercle Bacilli found ..	—	—	—	—	—	Class I.— 84 (57·1%)	10-lbs. 13ozs..
		Tubercle Bacilli not found	24	24	10	14	12		
	II.	Tubercle Bacilli found ..	—	1	4	4	—	Class II.— 51 (34·6%)	
		Tubercle Bacilli not found	5	16	5	10	6		
	III.	Tubercle Bacilli found	—	—	1	1	—	Class III.— 12 (8·1%)	
		Tubercle Bacilli not found	—	1	5	3	1		
Miscellaneous Sanatoria	I.	Tubercle Bacilli found ..	—	—	—	—	—	Class I.— 44 (57·1%)	9-lbs. 15-ozs.
		Tubercle Bacilli not found	14	15	6	8	1		
	II.	Tubercle Bacilli found ..	—	—	1	1	—	Class II.— 29 (37·6%)	
		Tubercle Bacilli not found	3	12	5	6	1		
	III.	Tubercle Bacilli found	—	—	—	—	—	Class III.— 4 (5·1%)	
		Tubercle Bacilli not found	—	1	1	1	1		
		Totals ..	83 (21·7%)	135 (35·3%)	65 (17%)	73 (19·1%)	26 (6·8%)	(Class I.— (Class II.— (Class III.	200). 152). 30).

48 of the above patients failed to complete the period of treatment granted, and 7 others were transferred to the care of the Wakefield Insurance Committee.

TABLE VI.

**Results of Hospital Treatment.**

	Males.		Females.		Totals.
Much Improved ..	28	..	11	..	39 (18.6%).
Moderately Improved	58	..	28	..	86 (41.1%).
Not Improved ..	32	..	26	..	58 (27.2%).
Died in Institution ..	15	..	11	..	26 (12.4%).
	133	..	76	..	209

Owing to a number of patients being transferred from one Institution to another, the figures in the various tables of results do not balance with those in the statistical tables of discharges, because only one result can be stated, although the individual may appear under the "discharge" figures of two Institutions.

**Domiciliary Treatment.**—Only patients who come under the provisions of the National Health Insurance Act have this form of treatment provided; and it is of importance at the onset of the illness to ensure that no ill-advised exertion may be allowed, which might result in an extension of the disease and a lessening of the likelihood of recovery. As a means of restoring health, however, treatment in a patient's home is only of value if the hygienic surroundings are good, the dwelling suitable, the atmosphere moderately pure, the dietary sufficiently abundant and nourishing, and if the medical attendant is in a position to give the necessary minute attention to the details of treatment. Naturally this combination of requirements is seldom found in an area in which the population is largely housed under urban conditions, and it may be said that in this area domiciliary treatment is chiefly of value (a) at the onset to prevent extension of the disease by careful medical attention; (b) to provide appropriate treatment in the event of a relapse occurring; and (c) to afford palliative treatment in cases which are progressing to a fatal termination. For three reasons, however, it would be advisable to transfer as many cases as possible from domiciliary treatment to Hospitals, because:—(1) in many homes it is impossible for the patient to receive the constant attention necessary; (2) under the housing conditions in many areas there is every likelihood of other members of the family being infected; (3) the nursing of a relative often implies attention by night as well as by day, and this, in addition to the anxiety associated with such an illness, throws an undue strain on those who take part in the nursing and renders them more liable to contract the disease.

**Treatment of Children.**—Good work is being performed at the Dispensaries in the treatment of forms of tuberculosis other than pulmonary, as many as 909 young patients having been under the care of the District Tuberculosis Officers during the year. Many of the cases affecting glands and bones have been successfully treated by the administration of tuberculin; and in a number of

instances appropriate splints have been supplied to assist in arresting disease of the joints, and other appliances in cases of disease of the spinal column.

The examination of school children suspected to be suffering from the pulmonary form of the disease, has been undertaken at the request of the School Medical Inspectors, and a number of cases thus continue to come under treatment.

The small number of beds, 17, at the disposal of West Riding patients at Eldwick Sanatorium only permits a fraction of the number on the register to receive residential institutional treatment; and the necessity for the provision of open-air schools is an urgent one, as a relapse is so liable to occur if the children are allowed to return to their old surroundings. It is very satisfactory to learn that the educational facilities at Eldwick Sanatorium are proving their value, and that the young inmates, while renewing their bodily vigour, are regaining much of the scholastic ground which had been lost owing to irregular school attendance.

The fact that many delicate children, who have been unable to reap the advantage of education in early life, eventually attain adult years handicapped in their mental as well as their physical equipment, presents a strong plea for the establishment of special open-air schools in which they may be trained and fitted to take a useful part in life. Children returning home after receiving treatment in a Sanatorium are handicapped in following out the regimen in their family circle, as their voices have less weight than those of adults in attempting to alter the home conditions in the direction of maintaining open windows. In too many cases the selfishness of relatives handicaps even an adult member of a family in following out an open-air life as far as possible,—warmth and comfort and a close atmosphere being synonymous in the minds of many persons. It will be readily understood that if adult patients are at times compelled to isolate themselves—if the other members of the household object to fresh air being admitted to a dwelling, then children who require to lead as close an approach to the open-air life as circumstances permit will have little chance of maintaining the improvement gained during a stay of some months in a Sanatorium. This experience emphasises the pressing need for open-air schools, where children who do not require close medical supervision and nursing may live and learn under the best hygienic conditions for such a period as their health and their home surroundings render necessary.

#### **Provision of Open-Air Shelters.**

These structures are in use to the number of 84, and they are of value in two respects :—first, in assisting patients whose vigour has been restored by treatment to sleep under better conditions, and again in providing separate sleeping quarters in cases where isolation could not otherwise be secured. Some supervision, however, is required to ensure that a proper use is made of the Shelters, as requests for the provision of them come at times from

individuals who have not realised the conditions associated with sleeping in the open air. Pending the erection of suitable dwellings in sufficient numbers to properly house families which have tuberculous members, we must look to open-air shelters as a temporary relief; and a useful purpose is therefore being served by this branch of the Scheme.

**After Care.**—In a number of districts the Local Insurance Committees take a keen interest in the welfare of patients during the time they are under treatment and also when they recover vigour sufficiently to resume work; but in other areas little or no attention is devoted to this important section of the scheme, and an appeal is again made for assistance and advice to be placed at the disposal of patients who are endeavouring to regain a place in the ranks of the wage-earners.

It would be advisable that the After-Care Committees, with members of the District Insurance Committees as a nucleus, should co-opt representatives from local Guilds of Help or other charitable organisations in the neighbourhood, so that all parties in the community might receive such advice and aid as they require to assist them in their prolonged struggle with disease.

The following examples show some ways in which valuable help can be given :—(a) to assist those in necessitous circumstances who are not “Insured Persons” to provide necessary clothing to enable them to enter a Sanatorium; (b) to aid the mother of a family in making arrangements for the care of her children while she is under treatment in a Sanatorium, and thus to relieve her of an anxiety which often leads to a too-early return home; (c) to assist patients whose vigour has been restored to obtain employment under the most healthful conditions possible.

It is unfortunate that the rules of most Friendly Societies prevent patients, while receiving “sickness aliment,” from undertaking part-time work to test their capability for exertion; and if, under due safeguards the regulations could be amended in the direction indicated, the demands upon the individual’s vigour would be made more gradually, and there would be less likelihood of a breakdown under what would otherwise be a too sudden strain.

#### **Grants of Extra Nourishment by the Insurance Committee.**

In the case of insured persons suffering from tuberculosis of the lungs who were unable to obtain sufficient nourishing food, the grant of extra nourishment has been continued in respect of 167 persons who applied for treatment during the year, and this has proved a valuable adjunct to treatment.

**Applications for Treatment of Tuberculosis.**—During the year under review, 1,623 applications for treatment were received under the scheme, from all classes, as follows :—

Insured Persons	.. .. .	863
Dependants on Insured Persons	.. ..	633
Persons outside the Insurance Act	.. ..	127

### PART III.

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During 1915, several alterations occurred in the Sanitary Districts of the Administrative County which should be noted here for record purposes. Wakefield City became a County Borough on the 1st April of that year, but the statistics given in the following pages of the Report, and in the detailed tables at the end, are exclusive of Wakefield. The new Urban District of Adwick-le-Street came into existence on the 9th November, 1914, but the district appears for the first time in the present Report. The Urban Districts of Cleckheaton, Gomersal, and Liversedge were amalgamated by Order of the County Council and formed into the Urban District of Spenborough; the Medical Officers of Health of the old areas continued to hold office, and have each presented reports, which have been separately abstracted under the name of the new district in the tables at the end of this Report. Owing to the existing conditions, a large number of the local Annual Reports were not received until late in 1916, the statistical tables in five cases not being forwarded until December; this very considerably retarded the work of abstracting the figures and preparing the Report.

**Population of the Administrative County.**—At the suggestion of the Registrar General, the practice of employing intercensal estimates has been abandoned for 1915, and the populations shown in the detailed tables at the end are the Registrar General's estimates of Civil Population, the death rates being calculated on these figures. The estimated Civil Population of the Administrative County for 1915 is 1,442,650, and this figure is considerably lower than that obtained by the usual method.

**Births.**—The number registered in the Administrative County during 1915 was 33,840 (Males 17,337, Females 16,503), giving a rate of 22·8 per 1000, as against a rate of 24·3 for 1914.

As pointed out by the Registrar General, "the births registered are not only those of the children of civilians, and the estimates of civilian population therefore form an unsuitable basis for the calculation of birth-rates. It is impossible to frame any estimate that would give reliable birth-rates, and it is suggested, therefore, that the birth rates for 1915 be based upon the existing estimates of total population for 1914." The above rate, and

also the rates for the individual County districts (see column 15 of Table I. at end of Report), have accordingly been calculated on the 1914 estimates of population.

**Deaths.**—The deaths registered in the County area during 1915 numbered 21,444. After making corrections for “Transferable Deaths,” the nett deaths belonging to the County totalled 21,679 (Males 10,969, Females 10,710), which figure yielded a rate of 15·0 per 1,000 of the estimated civil population. Record should be made of the distribution by this Department during 1915 of 2,541 deaths, under the Registrar General’s system of quarterly allocation.

The County death-rate of 15·0 per 1,000 is 1·1 higher than the rate for 1914. In comparing the 1915 death-rate with the rates for previous years, however, the following points require consideration. As stated, the rate is based upon the Civil Population, which is lower than would be the case in normal times, and although civilian deaths only are included in the Annual Report statistics, the Civil Population eliminates that section of the community in which the death-rate is abnormally low; the nett effect of the departure is, therefore, lower estimates of population and higher death-rates. It should be noted that the change does not affect the rates of infantile mortality, which are calculated on the deaths under one year of age per 1,000 registered births.

**Zymotic Disease.**—Particulars regarding the incidence of the seven principal Zymotic diseases are given in the following table,

Zymotic Disease.	No. of Cases 1915.	No. of Deaths 1915.	Ratio of Deaths.	
			(a) per 1000 persons attacked.	(b) per 1000 persons living.
(1) Small-Pox .. ..	1	—	—	—
(2) Scarlet Fever ..	4620	91	19·7	0·06
(3) Diphtheria and Mem- braneous Croup ..	2027	262	129·3	0·18
(4) Enteric Fever ..	524	101	192·8	0·07
(5) Measles .. ..	Not notified	770	?	0·53
(6) Whooping Cough ..	„	311	?	0·22
(7) Diarrhoea & Enteritis	„	723	?	0·50
Total of Chief Zymotic Diseases .. ..	?	2258	?	1·56

**Mortality at different Ages.**—The list of diseases, and the age-groups exhibited in the following summary, are those required by the Local Government Board in the tabulation of the reports by local medical officers of health.

CAUSE OF DEATH.	Age at Death.								All Ages
	Under 1 year	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	
Enteric Fever .. ..	1	—	3	11	21	46	19	—	101
Small-Pox .. ..	—	—	—	—	—	—	—	—	—
Measles .. ..	142	301	251	72	3	—	1	—	770
Scarlet Fever .. ..	7	4	43	33	4	—	—	—	91
Whooping Cough .. ..	145	88	70	7	—	1	—	—	311
Diphtheria and Croup .. ..	7	26	97	121	5	2	4	—	262
Influenza .. ..	7	3	2	8	10	38	62	92	222
Erysipelas .. ..	5	—	—	—	3	1	7	14	30
Phthisis (Pulmonary Tuberculosis) .. ..	5	14	20	66	251	478	273	49	1156
Tuberculous Meningitis .. ..	43	45	50	53	16	5	3	—	215
Other Tuberculous Diseases .. ..	55	52	39	48	39	60	35	8	336
Cancer .. ..	—	2	1	4	9	131	683	564	1394
Rheumatic Fever .. ..	1	1	1	16	19	22	20	2	82
Meningitis .. ..	53	27	32	31	11	13	13	2	182
Organic Heart Disease .. ..	14	2	6	58	66	247	868	1032	2293
Bronchitis .. ..	341	99	57	12	13	60	397	988	1967
Pneumonia (all forms) .. ..	437	274	185	117	75	222	373	293	1976
Other Diseases of Respiratory Organs .. ..	12	7	21	15	5	32	65	50	207
Diarrhoea and Enteritis .. ..	490	141	29	11	6	6	17	23	723
Appendicitis and Typhlitis .. ..	3	—	3	26	22	27	18	4	103
Cirrhosis of Liver .. ..	—	—	—	1	1	16	68	31	117
Alcoholism .. ..	—	—	—	—	—	11	16	3	30
Nephritis and Bright's Disease .. ..	1	17	17	25	21	125	277	201	684
Erysipelas .. ..	—	—	—	—	10	27	—	—	37
Other Diseases of Pregnancy and Parturition .. ..	28	—	—	1	22	113	1	—	165
Constitutional Debility, Premature Birth, &c. .. ..	1404	23	10	5	2	3	—	1	1448
Violent Deaths, excluding Suicide .. ..	42	24	60	93	84	185	151	89	728
Suicide .. ..	—	—	—	1	16	46	57	14	134
Other defined Diseases .. ..	482	109	88	117	140	466	1259	2700	5361
Diseases ill-defined or unknown .. ..	70	15	9	5	4	24	58	369	554
<b>ALL CAUSES .. ..</b>	<b>3795</b>	<b>1274</b>	<b>1094</b>	<b>957</b>	<b>878</b>	<b>2407</b>	<b>4745</b>	<b>6529</b>	<b>21679</b>

**Isolation Hospitals.**—The next table gives particulars of the removals to Hospital during 1915, and affords a comparison with the figures for the previous year. Columns 18 to 22 of Table III. (see end) show the removals for each district.

	Total cases notified.	Cases removed to Hospital.	
		Number.	Proportion.
Small Pox .. ..	1	1	100.0 per cent.
Scarlet Fever .. ..	4620	3707	80.2 ..
Diphtheria and Mem- braneous Croup ..	2027	1449	71.5 ..
Enteric Fever .. ..	524	376	71.8 ..
Total 1915 ..	7172	5533	77.2 ..
Total 1914 ..	9650	7073	73.3 ..

**Infantile Mortality.**—Table shewing age-distribution, and ratio of infant deaths per 1000 registered births, in comparison with the figures for 1914 :—

Age Distribution of Infant Deaths.				No. of Deaths.		Ratio per 1000 Births.	
				1914.	1915.	1914.	1915.
Under 1 week .. ..	..	..	..	1010	914	26.9	27.0
1 to 2 weeks .. ..	..	..	..	216	214	5.7	6.3
2 to 3 .. ..	..	..	..	207	163	5.5	4.8
3 to 4 .. ..	..	..	..	157	117	4.2	3.5
Total under 1 month ..	..	..	..	1590	1408	42.3	41.6
1 to 3 months .. ..	..	..	..	773	668	20.6	19.7
Total under 3 months ..	..	..	..	2363	2076	62.9	61.3
3 to 6 months .. ..	..	..	..	720	570	19.1	16.8
6 to 9 .. ..	..	..	..	642	561	17.1	16.5
9 to 12 .. ..	..	..	..	559	588	14.9	17.4
				4284	3795	114.0	112.0

**Infantile Mortality.**—The rate in the Administrative County during 1915 was 112, as against 114 in 1914 (*vide* Column 20, Table I., at end, for details).

The next table shows an analysis of the deaths from stated causes in different periods under one year of age.

# WEST RIDING ADMINISTRATIVE COUNTY.

## Infantile Mortality during the year 1915.

CAUSE OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.
Small-Pox .. .. .	—	—	—	—	—	—	—	—	—	—
Diphtheria-Pox .. .. .	—	—	—	—	—	1	1	1	—	3
Measles .. .. .	—	1	—	1	2	4	3	45	88	142
Scarlet Fever .. .. .	—	—	—	—	—	—	1	3	3	7
Whooping Cough .. .. .	—	2	—	2	4	27	30	31	53	145
Diphtheria and Croup .. .. .	—	—	—	—	—	1	1	—	5	7
Erysipelas .. .. .	—	—	—	—	—	3	1	1	—	5
Tuberculous Meningitis .. .. .	—	—	—	1	1	2	14	16	10	43
Abdominal Tuberculosis .. .. .	—	—	—	—	—	1	10	6	11	28
Other Tuberculous Diseases .. .. .	—	1	—	—	1	7	2	5	12	27
Meningitis (not Tuberculous) .. .. .	—	1	—	1	2	8	13	15	15	53
Convulsions .. .. .	48	22	14	12	96	45	32	30	24	227
Laryngitis .. .. .	—	1	—	1	2	6	7	5	2	22
Bronchitis .. .. .	4	6	7	7	24	69	95	74	63	325
Pneumonia (all forms) .. .. .	2	8	6	6	22	65	81	121	148	437
Diarrhoea .. .. .	1	1	2	3	7	54	52	38	30	181
Enteritis .. .. .	1	1	5	7	14	73	88	63	52	290
Gastritis .. .. .	2	—	8	1	11	17	14	7	5	54
Syphilis .. .. .	1	3	4	4	12	15	2	1	—	30
Eclampsia .. .. .	—	—	—	—	—	—	4	4	2	10
Asphyxiation, overlying .. .. .	7	2	1	—	10	12	5	1	1	29
Injury at Birth .. .. .	27	1	—	—	28	2	—	—	—	30
Pneumothorax .. .. .	44	4	6	5	59	2	—	—	—	61
Congenital Malformations .. .. .	59	25	8	5	97	33	8	7	2	147
Immature Birth .. .. .	536	59	48	30	673	56	16	3	1	749
Atrophy, Debility and Marasmus .. .. .	127	55	40	22	244	114	52	35	21	466
Other Causes .. .. .	55	21	14	9	99	51	38	49	40	277
<b>Grand Total for Administrative County .. .. .</b>	<b>914</b>	<b>214</b>	<b>163</b>	<b>117</b>	<b>1408</b>	<b>668</b>	<b>570</b>	<b>561</b>	<b>588</b>	<b>3795</b>

**Maternity and Child Welfare Scheme.**—The inspection of midwives is dealt with on page 29. The provision of midwives is becoming more serious each year, particularly in the rural parts of the Riding.

A certain number of midwifery scholarships are given each year. Of late years a sufficient number of suitable candidates has failed to come forward, and this may be partly due to a lack of knowledge that such facilities are afforded. There are many advantages in selecting a suitable woman for the district where the need is felt, and local Medical Officers should not hesitate to recommend such women to the County Authorities for this purpose. Certain of the Health Visitors now assist in the inspection of midwives.

**Notification of Births Act and Health Visitors.**—The work of the Health Visitors has made steady progress during the year. More attention has been paid to ante-natal advice than previously, and all infants are now followed up until they reach school-age.

There are 8 voluntary Maternity Centres in various parts of the Riding which have achieved a certain amount of success. But it is hoped at an early date that a complete County scheme will be developed for the whole of the Riding.

A special nurse is being appointed to assist in the work of preventing mortality from Measles. This nurse will be loaned to Local Authorities whenever an undue incidence of measles prevails.

Many of the Health Visitors have been given leave of absence to serve at Military Hospitals at home and abroad.

The following table shows the work done by the Health Visitors during 1915, in the area for which the County Council is the Local Authority under the Notification of Births Act.

County area under N.O.B. Act.	No. of Births Notified.	No. of First Visits.	No. of Re-visits.	No. of Pre-Natal Visits.	No. of Special Visits (Epidemic Diarrhoea) etc.	No. of Still-Births Notified.	No. of Deaths under one year.	No. of cases of Ophthalmia Neonatorum.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Urban Districts	11043	11511	51099	1713	2191	413	654	154
Rural Districts	6100	6997	26560	1294	969	214	376	70
West Riding ..	17143	18508	77659	3007	3160	627	1030	224

**Midwives Act.**—The following table gives the number of practising midwives in the County during 1915 and previous years. There were 22 deaths of midwives ; the 1915 figures are exclusive of Wakefield City.

	1908	1909	1910	1911	1912	1913	1914	1915
Number of Midwives who gave formal notice of their intention to practise	757	717	746	730	696	695	667	628
Number of reported Deaths of Midwives	20	11	11	16	14	12	16	22

The number of notifications received from midwives during 1915, is shown in the following table, in comparison with the figures for the previous five years :—

	1910	1911	1912	1913	1914	1915
Notifications of Sending for Medical Help .. ..	723	618	677	675	932	981
Notifications of Death of Child	68	57	61	66	55	53
Notifications of Death of Mother	4	3	12	8	12	11
Number of Inquests reported ..	46	42	44	33	21	20
Notifications of Still-Births ..	392	394	368	372	332	273
Notifications of Puerperal Fever	35	29	44	24	45	31
Notifications of Ophthalmia Neonatorum .. ..	—	—	—	—	91	145
Notifications of other Infectious Cases .. ..	2	11	8	10	11	6
Notifications of Laying-out Dead Body .. ..	—	6	8	13	28	23

The number of visits to midwives during 1915 was 830. The most important new features concerning the inspection of midwives are, (1) an organised effort by the General Medical Council and the Central Midwives Board to prevent the covering of uncertified midwives or "handy-women" by medical practitioners. This, of course, makes the necessity for increasing the existing supply of trained midwives more urgent. (2) The services of those Health Visitors who have the Central Midwives Board certificate, and are in other respects suitably qualified for the duties, have been utilised for the better supervision and control of the practising midwives. (3) The new Rules of the Central Midwives Board have been issued with certain modifications of our procedure particularly applicable to the County area, notably in respect of the action to be taken by the midwife after contact with an infectious disease. This will considerably curtail the period of suspension.

I am glad to record that almost without exception the relation between the midwives and the County Health Visitors has been of an amicable nature, with an almost complete absence of friction.

Report of the County Health Visitors for the year 1915.

### Action under Housing Acts and Regulations.

As regards progress or action in the County relating to housing conditions, the results of the second year of the war and the consequent action of the Local Government Board in refusing to grant loans for housing schemes have had considerable effect on the activities of Local Authorities, and have checked and practically brought to a standstill the building trade, except in those cases where the work was well advanced.

Those Authorities who in the past have shown evidence of their desire to forward the good work of housing reform have continued their efforts in necessitous cases, others have dropped the work entirely, some not even pressing for amendments where houses had been certified as unfit for habitation, or not reasonably fit for habitation. The scarcity of workmen and the high price of materials are often advanced for not taking action, both in regard to unfit houses and repairs. In regard to overcrowding, lack of housing accommodation has aggravated it in the mining and manufacturing centres by the inflow of workpeople to the reserved trades and munition works.

The action in regard to housing by the Local Authorities in the Riding may be displayed in a tabular statement as follows :—

	Urban District.	Rural District.	Total.
Houses inspected .. .. .	13476	4131	17607
Houses found unfit .. .. .	518	120	638
Unfit houses represented to Authorities for closing .. .. .	237	75	312
Closing Orders made .. .. .	121	65	186
Houses with defects remedied without Closing Orders .. .. .	4884	929	5813
Unfit houses made fit after Closing Orders .. .. .	106	44	150
Cases of overcrowding recorded ..	285	92	377
Number of new houses built .. ..	1556	685	2241

The principal growth has been around the South Yorkshire coalfield, the cotton mill area at Barnoldswick, and the new industries about Selby.

The activities of this Department have continued as far as time and other work would permit. Reports on the Housing in the Urban Districts of Elland, Kirkheaton, Mirfield, Slaithwaite, and Stanley, and in the Rural Districts of Barnsley (Carlton and Woolley parishes); Goole (Snaith and Cowick parishes); Settle (Bentham parish), have been presented.

Conferences have been held between the Chairman and Sub-Committees of the Public Health and Housing Committee and the Urban Councils of Elland, Skelmanthorpe, and Slaithwaite, and the Rural Councils of Barnsley and Pontefract. The County Sanitary Inspector has had conferences with the Urban Councils of Silsden and Stainland and the Rural Council of Penistone.

Special assistance was given to several Local Authorities in regard to pending actions and appeals under the Housing Acts.

Special attention has been drawn to the question of record-keeping throughout the Riding and the need for an improved organization of this work. The present lull in the provision of housing schemes might well be taken advantage of to inaugurate a uniform, simple, yet adequate system of records.

Local Government Board inquiries have been held in regard to housing matters at East and West Ardsley, and Darfield, for a loan for a site for dwellings; at Clayton into a complaint by four inhabitant householders that the Council had failed to exercise their powers to provide working-class houses; at Holmfirth and Great Ouseburn R. (Boroughbridge) for the purchase of land and the provision of a housing scheme; at Normanton and Shipley for a further loan for the erection of working-class houses; and Hunslet Rural in regard to a Town Planning Scheme for the Temple-newsam area. At each of these enquiries my Department was represented and gave such assistance as was necessary.

### Sale of Food and Drugs Acts.

#### QUARTERLY RECORD OF SAMPLES TAKEN DURING 1915.

District.	Inspector.	Samples analysed during 1915.				
		First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.
Barnsley ..	J. H. Bundy ..	62	48	39	41	190
Central ..	A. Ross ..	76	69	71	72	288
Harrogate	H. Gamble ..	79	79	74	87	319
Mirfield ..	H. Newbould	89	61	60	62	272
Pontefract	H. F. Wilkinson	95	86	70	130	381
Rotherham	J. Wilson ..	115	88	56	85	344
Shipley ..	J. Duce ..	77	63	63	74	277
Skipton ..	A. Randerson ..	79	85	84	89	337
Sowerby ..	E. Bell ..	53	65	70	78	266
Total Samples taken by the County Inspectors ..		725	644	587	718	2674
Local Authorities .. ..		116	182	168	248	714
Private Purchasers .. ..		—	—	—	—	—
Total Samples analysed ..		841	826	755	966	3388

## RECORD OF SAMPLES FOR TEN YEARS, 1906-1915.

Year.	Total Samples submitted by			Total Examined.	Total Adulterated.	Percentage Adulterated.
	County Council.	Local Authorities.	Private Purchasers.			
1906	2367	432	2	2801	122	4.3
1907	2294	400	1	2695	105	3.9
1908	2231	489	..	2720	138	5.3
1909	2276	463	..	2739	102	3.7
1910	2340	504	..	2844	111	3.9
1911	2522	592	..	3114	158	5.1
1912	2753	617	..	3370	225	6.7
1913	2546	672	..	3218	167	5.2
1914	2668	744	4	3416	229	6.7
1915	2674	714	..	3388	179	5.2

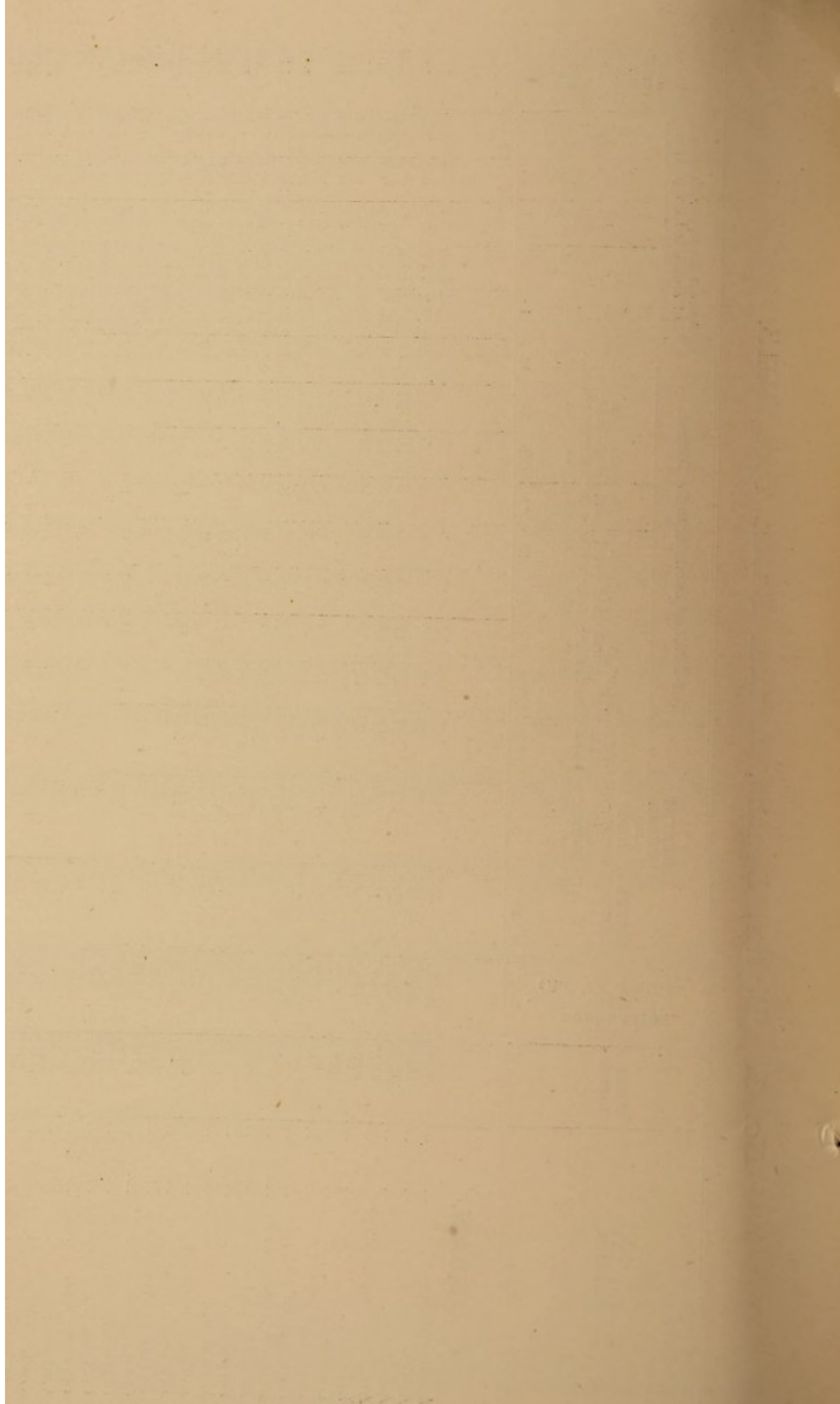
*List of Samples taken by Local Authorities.*—The table below gives details of the 714 samples submitted by Local Authorities during 1915. The number of samples examined by Doncaster Borough, which appoints its own Analyst, was 67.

Batley B. ..	80	Knaresborough	1	Shepley ..	..	1
Birkenshaw ..	7	Marsden ..	9	Skelmanthorpe ..	..	2
Castleford ..	18	Meltham ..	9	South Crosland ..	..	4
Elland ..	23	Methley ..	3	Southowram ..	..	2
Featherstone ..	18	Mexborough	18	Stocksbridge ..	..	1
Garforth ..	22	Mirfield ..	9	Thurstonland ..	..	3
Golcar ..	11	Morley B. ..	10	Todmorden B. ..	..	19
Goole ..	5	Ossett B. ..	18	Worsborough ..	..	14
Harrogate B. ..	111	Pudsey B. ..	18	Goole R. ..	..	1
Haworth ..	12	Rawmarsh ..	17	Hemsworth R. ..	..	41
Horbury ..	16	Ripn C. ..	15	Kiveton Park R. ..	..	21
Horsforth ..	15	Rothwell ..	31	Pontefract R. ..	..	1
Ilkley ..	30	Shelf ..	1	Wakefield R. ..	..	11
Keighley B. ..	63	Shelley ..	2	Wetherby R. ..	..	1

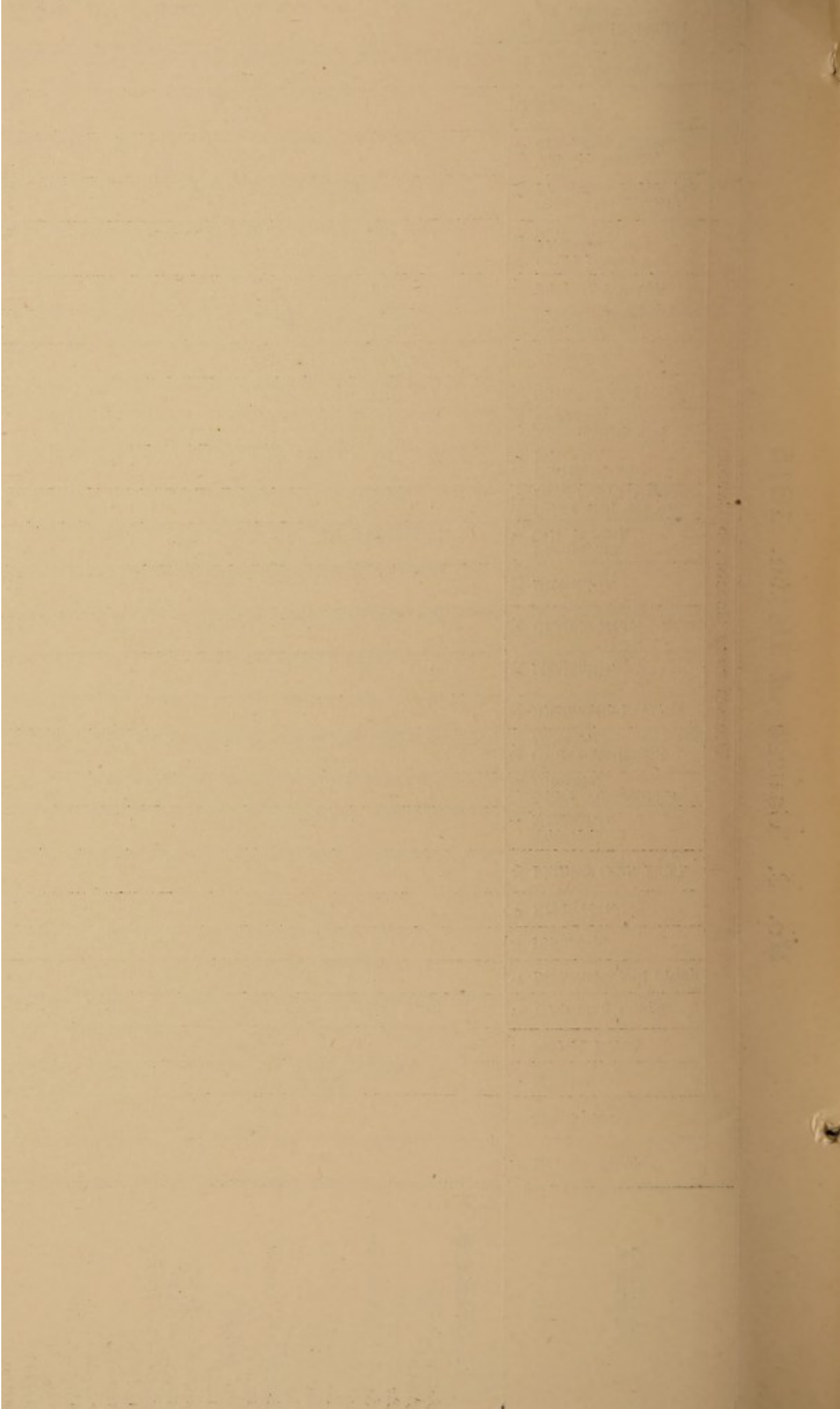
**General.**—With the object of keeping the report at minimum length, the usual lists and statistics relating to Water Supply, Sewerage, etc., and also the Statistical Addendum, have been omitted. Full particulars have, however, been abstracted from the local Annual Reports for Departmental use, and will be available for later reports.

No. 1. Births, Deaths, Annual Rates, etc., 1915.

[illegible]







## No. III. Notified Cases of Infectious Disease, 1915.

