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# ANNUAL REPORT

OF THE

MEDICAL OFFICER

TO

## The County Council

OF

## NOTTINGHAMSHIRE,

FOR THE YEAR 1915,

BY

HENRY HANDFORD, M.D., Edin., D.P.H., Camb.

Fellow of the Royal College of Physicians of London,  
and of the Royal Sanitary Institute.


Hon. Consulting Physician to the General Hospital, Nottingham,  
and to the Nottingham and Notts. Association for the Prevention  
of Consumption.

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Nottingham :

THOS. FORMAN AND SONS, SHERWOOD STREET.

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PUBLIC HEALTH DEPARTMENT,

SHIRE HALL,

NOTTINGHAM,

*Sept. 20th, 1916.*

MY LORDS AND GENTLEMEN,

I have the honour to present my Twentieth Annual Report.

The statistics relate to the year 1915, but other matters have been brought as far as possible up to the date of publication.

Every effort has been made to restrict the report to the narrowest limits on the ground of economy; but an efficient record of the work of the past year is required for the information of the Local Government Board as well as of the County Council.

The work has been carried on with much difficulty on account of the reduction of staff, but no work has been dropped. The County Medical Officer was only able to give occasional supervision from June, 1915, to May, 1916, on account of military duties, but the arrears have now been overtaken.

The continued fall in the birth-rate and the increase in the death-rates (excluding military deaths) indicate the necessity of not relaxing any precautions which safeguard the public health.



As will be seen on p. 10 no Annual Report has been received from the Newark Rural District on account of the delay in appointing a permanent successor to the late Medical Officer of Health. Also, no Annual Report has been received from the Bingham Rural District, whose Medical Officer of Health was absent on military duty until the middle of this year. The necessary statistics have been obtained from each district.

The estimated population of the administrative County used for the County statistics, is that given by the Registrar-General, and amounts to 353,193. The reasons for the reduction are given on p. 12.

The following tables give in abstract the most important Vital Statistics for the year 1915, compared with 1914, and with the average for the ten years, 1905—1914. Further details are to be found in the tables in the Appendix and under the headings of the different diseases.

**BIRTH-RATE AND NETT DEATH-RATE PER 1,000  
POPULATION.**

YEAR .. ..	1915.	1914.	Mean Rate for 10 years, 1905—1914.
Birth-rate .. ..	25·0	25·9	27 5
Nett Death-rate .. .. (Corrected for transferable deaths.)	14·3	12·7	13·0

**INFANTILE MORTALITY RATE PER 1,000 BIRTHS.**

YEAR .. ..	1915.	1914.	Mean for 10 years 1905—1914.
Rate .. ..	112	107	113





DEATH-RATES FROM THE FOLLOWING INFECTIOUS DISEASES  
PER 100,000 POPULATION.

YEAR .. ..	1915.	1914.	Mean for 10 years 1905-1914.
Scarlet Fever .. ..	3·9	5·4	5·5
Diphtheria .. ..	17·2	17·1	13·9
Enteric Fever .. ..	2·5	4·0	6·4
Pulmonary Tuberculosis	73·9	68·5	74·8
Other Forms of Tuberculosis .. ..	32·2	32·4	38·4

The increase of the Infantile Mortality death-rate in a favourable year indicates the need for more Health Visitors and more Infant Welfare Centres.

Scarlet Fever and Enteric Fever show a very satisfactory diminution in mortality; but the deaths from Diphtheria and from Tuberculosis continue to increase.

A most serious new duty has been placed upon County Councils by the Public Health (Venereal Diseases) Regulations, issued by the Local Government Board on July 12th, 1916.

The County Council are required to provide laboratory facilities for a scientific report upon any material which a medical practitioner may submit from a patient suspected to be suffering from venereal disease. And are also required to prepare a scheme for the treatment of persons suffering from venereal disease in hospitals or other institutions, and for the supply of Salvarsan to medical practitioners.

Many preliminary enquiries have already been made and a Scheme will shortly be ready.

The extensive dislocation of medical work by the War is shown by the fact that the County Medical Officer and three doctors of the School Medical Staff have been absent on military duty, and the three latter are still absent. And, further, four of the district Medical Officers of Health have received commissions. One of them has died abroad, and one has returned to civil life after a year's work.

I have the honour to remain,

Your obedient servant,

HENRY HANDFORD.

# ANNUAL REPORT.

---

The Administrative County of Notts. contains 265 Civil Parishes.

The area of the Administrative County amounts to 521,060 acres or  $814\frac{1}{6}$  square miles, *exclusive of water*.

The staff of the County Medical Officer has been very greatly disorganised by the War. The following list gives the changes up to the end of September, 1916.

## COUNTY MEDICAL OFFICER'S STAFF.

*County Medical Officer of Health, School Medical Officer, and Chief Tuberculosis Officer—*

HENRY HANDFORD, M.D. Edin., F.R.C.P. Lond.,  
D.P.H. Camb.  
(Mobilized for Military duty, June 1st, 1915 to May  
8th, 1916).

*Assistant School Medical Officer and Assistant County Medical Officer—*

ROSE HUDSON, M.B., Ch.B. Glas., D.P.H. Ed.

*Tuberculosis Officer and Assistant County Medical Officer—*

E. WARDMAN-WILBOURNE, M.B., B.Ch.Ed., D.P.H.Camb.

*Resident Medical Officer, Ransom Sanatorium—*

MRS ETHEL DUKES, L.R.C.P., L.R.C.S., Ed., L.F.P.  
and S. Glasgow.

*Chief Inspector of Midwives—*

ROSE HUDSON, M.B., Ch.B. Glas., D.P.H. Ed.

*Tuberculosis Nurses—*

MISS VIOLETTA NEWHAM.

MISS AMY WHARMBY.



*School Nurses, who act as Assistant Inspectors of Midwives—*

MISS SIMMONS, L.O.S., C.M.B.

(Absent on Military duty in Serbia from April 21st, 1915, to March 18th, 1916).

MISS HAYLOCK, C.M.B.

MISS VINT, C.M.B.

*Chief Clerk and Sanitary Inspector—*

S. TEMPLE BROWN, Cert. Royal San. Inst.

*Clerks—*

MISS WHEAT.

MR. WOODCOCK (Absent with the R.F.A. in the Mediterranean since August 7th, 1914).

MISS E. M. CAUNT, Assistant Tuberculosis Clerk.

NAMES AND ADDRESSES OF THE MEDICAL OFFICERS OF  
HEALTH OF THE 26 DISTRICTS INTO WHICH THE COUNTY  
IS DIVIDED.

BOROUGH AND URBAN DISTRICTS.

Districts.	Name of the Medical Officer of Health.	Address.
MANSFIELD (Borough)	.. John Lambie, M.D., D.P.H.	.. Queen Street, Mansfield.
NEWARK (Borough)	.. Charles Wills, M.R.C.S. (Consulting M.O.H.)	.. Farnsfield, Southwell.
..	.. Samuel Nicol Galbraith, M.B., Ch.B. Glas., D.P.H. Camb.	.. Newark.
EAST RETFORD (Borough)	.. Hanway R. Beale, M.D., D.P.H.	.. Bridgegate House, East Retford.
ARNOLD	.. Harvey Francis, M.D.	.. Arnold, Nottingham.
BEESTON	.. Frank Rothera, M.D.	.. Old Manor House, Beeston, Nottingham.
CARLTON	.. J. T. Knight, M.R.C.S.	.. Ivy Lodge, Carlton, Nottm.
EASTWOOD	.. F. Dixon, L.R.C.P.	.. Eastwood, Notts.
HUCKNALL TORKARD	.. W. Garstang, M.B. (Absent on Military duty).	.. Sherwood House, Hucknall Torkard, Nottm.
	Deputy : Dr. W. Harrison Coates	.. Tenter House, Hucknall Torkard.



Districts	Name of the Medical Officer of Health.	Address.
HUTHWAITE	.. Robt. Irvine, L.R.C.P.	Huthwaite, Mansfield.
KIRKBY-IN- ASHFIELD	.. M. E. Kayton, L.R.C.P., D.P.H.	.. 126, Low Moor Road, Kirkby-in-Ashfield, Nottm.
MANSFIELD WOODHOUSE	.. Ernest H. Houfton, M.D.	.. Bath House, Mansfield.
SUTTON-IN- ASHFIELD	.. R. Nesbitt, .. L.R.C.S.I.	.. Ashfield House, Sutton-in-Ashfield, Nottm.
WARSOP	.. H. W. Horan, M.B., B.S.	.. Warsop, Notts.
WEST BRIDGFORD	Walter Hunter, M.D.	.. Bridgway House, Arkwright Street, Nottm.
WORKSOP	.. T. C. Garrett, M.B.	.. Newcastle Avenue, Worksop.

### RURAL DISTRICTS.

Districts.	Name of the Medical Officer of Health.	Address.
BASFORD	.. G. B. Wray, M.R.C.S., D.P.H.	.. Burton Buildings, Parlia- ment St., Nottingham.
BINGHAM	.. O. B. Eaton, D.P.H. (Returned from War duty, May, 1916).	.. Long Acre, Bingham, Nottingham.
BLYTH AND CUCKNEY	.. W. T. Wood, L.R.C.P. (Absent on War duty.) Deputy, Dr. J. Dooley.	The Laurels, Creswell, near Mansfield.
EAST RETFORD	.. Hanway R. Beale, M.D., D.P.H.	.. Bridgegate House, East Retford.
LEAKE ..	.. N. B. M. Blackham, L.R.C.P.	.. 25, Victoria St., Loughboro'
MISTERTON	.. Vacated by death on Service. Deputy Dr. Bruce	.. Misterton, Gainsborough. .. North Leverton, Retford.
NEWARK	.. Samuel Nicol Galbraith, M.B., Ch.B., D.P.H.	.. Newark.
SKEGBY ..	.. J. O. Littlewood, M.R.C.S., D.P.H.	.. Highfield, Mansfield.
SOUTHWELL	.. Charles Wills, M.R.C.S.	Farnsfield, Southwell.
STAPLEFORD	.. E. Kingsbury, M.D.	.. High Street, Stapleford, Nottingham.
NOTTS. PARISHES administered by		
SHARDLOW	.. S. Hunt, M.R.C.S.	.. Spondon, Derby.

### CHANGES OF STAFF.

The County has temporarily lost the services of two School Medical Officers, one School Dentist, two School Nurses, and one Clerk, all of whom are doing military duty at home, or at the Front. In addition, two other School Nurses, namely, Miss Simmons and Miss Collier, were absent

for the greater part of 1915 and the first half of 1916. Miss Simmons, after a very arduous and dangerous time in Serbia, returned to her work for the County Council in March this year. She does much work for the Health Committee as one of the Inspectors of Midwives. Miss Collier was much exhausted by nearly a year's constant night duty in Home Hospitals and returned to duty on July 1st, 1916.

The greater part of the time of the County Medical Officer was occupied as Military Sanitary Officer in this and adjoining Counties, from June 1st, 1915, to May 8th, 1916, when he was temporarily demobilized in order to again give his whole time to the public health work of the County, which had fallen into arrears. In view of the urgency of a Scheme for Maternity and Child Welfare, and of the New Order requiring a Scheme to be prepared for the Diagnosis and Treatment of Venereal Diseases, there is more than ample scope for full time work.

Miss Knight, one of the senior members of the clerical staff, resigned after eight years' service, to take up a better-paid post.

Her place has been partially filled by the appointment of Miss Caunt, who does almost exclusively Tuberculosis work. Miss Wheat's time is more than fully occupied by the clerical work associated with the Medical Inspection of School Children. But with such a small and overworked staff of clerks, each has to help the other, and no one can be reserved exclusively for one class of work. They have been most loyal and industrious and have worked much longer hours than is desirable. Their work is so highly technical that new clerks, untrained in medical and public health requirements, are of comparatively little assistance for the first six months or more.

Among the District Medical Officers of Health, four have been absent on military duty and their work has been carried on by deputies.

Of the three, Dr. W. W. Farrar, of Misterton, is reported to have died of Cholera at Bombay. He was an excellent Medical Officer of Health and will be greatly missed.

Dr. O. B. Eaton, of Bingham, after an absence of more than a year, returned to his civil duties in May, 1916.

Dr. Wood (M.O.H. for Blyth and Cuckney) is still absent.



Dr. Garstang (M.O.H. for Hucknall Torkard) accepted a commission in the R.A.M.C. in August, 1916, and is still absent.

### ANNUAL REPORTS.

The Medical Officer of Health of each Urban and Rural District, is required by Section 19 of the Local Government Act of 1888, to "*send to the County Council a copy of every periodical report of which a copy is for the time being required by the regulations of the Local Government Board to be sent to the Board, and if a Medical Officer fails to send such copy the County Council may refuse to pay any contribution, which otherwise the Council would in pursuance of this Act pay towards the salary of such Medical Officer.*"

And, further, by the Housing, Town Planning, etc., Act, 1909, Section 69 (2). "*The Medical Officer of Health of a district shall give to the Medical Officer of Health of the County any information which it is in his power to give, and which the Medical Officer of Health of the County may reasonably require from him for the purpose of his duties prescribed by the Local Government Board.*"

It is from the Statistical Tables in these Annual Reports upon forms supplied by the Local Government Board, that the Vital Statistics for the whole county are prepared. There is no reason, as a rule, why these Reports, or at least the Statistical Tables, should not be received by the end of March. It will be seen that some of the Reports for 1915 were not received until August, 1916. From one District, namely Newark Rural, no Report has been received for the two years 1914 and 1915, but only the statistical tables. The main reason has been the death of Dr. Broadbent, early in 1915, and the delay in appointing a permanent successor.

Most of the Reports have been printed, as usual, though in a shortened form; but as will be seen from the following list, the Reports from the Borough of Newark, the Urban District of Kirkby-in-Ashfield, and the large Rural District of Basford, have only been typewritten.

At the beginning of the War it was thought right to postpone as much sanitary work as possible until after the termination of the War; but now that the War has entered upon its third year, and there seems every prospect of another one or two years, at least, before the equable conditions of peace can be restored, the wisdom of that policy is more than ever doubtful.



The amount of sanitary work carried out in the different districts, as shown by the reports, varies to an extraordinary degree.

Some Urban Districts, like Mansfield and Retford, though much disturbed by the quartering of troops and the proximity of camps, have done a great deal and the arrears are not numerous. The same may be said of some of the Rural Districts, such as Skegby and Southwell. In others the prospect for the next year or two is not a happy one should any serious epidemic follow the War.

### REPORTS.

	Date.	District.	Printed or not.
March	1—Carlton .. .. .		Yes.
„	14—Misterton .. .. .		„
„	15—Hucknall .. .. .		„
„	20—West Bridgford .. .. .		„
April	12—Stapleford .. .. .		„
„	20—Bingham. No Report.	Statistics only.	No.
„	25—East Retford Borough .. .. .		Yes.
„	25—East Retford Rural .. .. .		„
May	2—Arnold .. .. .		„
„	3—Sutton-in-Ashfield .. .. .		„
„	6—Beeston .. .. .		„
„	12—Leake .. .. .		„
„	17—Southwell .. .. .		„
„	18—Basford .. .. .		No.
„	20—Kirkby-in-Ashfield .. .. .		„
„	20—Eastwood ....		Yes.
„	24—Kingston and Ratcliffe. Statistics only.		No.
„	25—Blyth and Cuckney .. .. .		Yes.
June	1—Worksop .. .. .		„
„	3—Mansfield Woodhouse .. .. .		„
„	14—Huthwaite .. .. .		„
„	17—Warsop .. .. .		„
„	26—Newark Rural. No Report.	Statistics only.	No.
July	1—Mansfield .. .. .		Yes.
„	27—Newark Borough .. .. .		No.
Aug.	16—Skegby .. .. .		Yes.

### POPULATION.

The *natural* increase of population for the year 1915, by excess of births over deaths, was **3,775**, compared with 4,845 for 1914, 4,934 for 1913, and 5,007 for 1912. This shows a progressive diminution in the rate of increase due both to the steady fall in the birth-rate and to the rise in

the death-rate, which has continued for the last four years. It is a matter of national importance which deserves serious consideration.

The population which is used for the calculation of the birth- and death-rates since the War, is the *civil* population, as the deaths of soldiers are *not* included in the death-rates of the Urban or Rural Districts in which they may occur, nor in the County death-rate. Also, the deaths of soldiers at the Front are *not* included in the civilian death-rate for Great Britain. Several million adult males have now been withdrawn from the civil population and form our present naval and military forces. This great alteration has made it a matter of extreme difficulty to compute the civilian population of the County and its constituent districts for the middle of the year 1915. Consequently, the Registrar-General has estimated, from sources not readily accessible to the Medical Officers of Health, the civil population of each administrative County and of each Urban and Rural District. These estimates were issued in February to the County Medical Officers, who were requested to distribute them to the District Medical Officers. The Registrar-General and the Local Government Board advise that they should be used for computing the statistics for 1915. In most instances they are probably more accurate than the local estimates which, as the Census always shows, tend to be too large. The Registrar-General's estimate has been adopted for this County and by most of the Districts. Where local estimates have been used, the rates have been re-calculated for this report.

There is no doubt that the withdrawal of so large a number of young male adults, amongst whom the mortality is normally very small, from the general population has tended to increase the ratio of the deaths. This is by no means the sole cause, as the rise in the death-rate had begun before large numbers of young men were withdrawn for the Army. It is also counteracted to some degree by the resulting predominance of young adult females, amongst whom the normal death-rate is lower than for males of similar age.

The absence of men on military service cannot affect the Infant Mortality, which is calculated in relation to the number of births, and which has also been steadily rising for the last four years.

The employment of too high a population for statistical calculations not only tends to hide a rising death-rate, but also unduly depresses the birth-rate, and makes that appear



worse than the reality. There are, therefore, clear advantages in a frank acceptance of the Registrar-General's suggestions for the whole County and its constituent parts.

The estimate of the Registrar-General for the whole County for the middle of the year 1915, was 353,193, compared with 367,617 for 1914, showing a *diminution* of 14,424. When to this number is added the natural increase of 3,775, by excess of births over deaths, it would appear that about 18,199 young male adults had joined the Navy and Army from Nottinghamshire during the first half of 1915. No account has been taken of the influx of Belgians in the latter part of 1914. Many of them returned to Belgium during 1915, and in any case the numbers, except in the large towns, are not large.

## BIRTHS.

The number of live births registered in the County during the year 1915, amounted to 8,843, showing an absolute decrease of 698, and corresponding to a rate of 25·0 per 1,000 of the population, compared with 25·9 in 1914. The Urban rate was 26·4, and the Rural 22·5.

The declining birth-rate is no new question, but it has acquired a new significance since the great European War has shown the vital importance of man-power to any country that wishes to maintain its position in the world. If it be true, as it is asserted, that the final position depends mainly upon the number of healthy and vigorous young men that can be put into the firing-line, a country with a small population, which is increasing very slowly and may at any moment cease to increase at all, has need of serious reflection.

Whether the decline in the birth-rate has gained such momentum that it cannot be overtaken is a most opportune question ; but a decline which has been steady and almost persistent for 37 years, disposes one to the opinion that a further fall is inevitable.

A birth-rate of 13·5 per 1,000, among more than thirteen thousand persons at West Bridgford, gives much ground for serious thought. Almost equally serious is a birth-rate of 17·2 among 3,546 people in the Leake Rural District, 17·3 among 13,616 people in the Bingham Rural District, and



19.1 among 19,215 persons in the Southwell Rural District. The population (nearly 50,000) of the districts quoted is too large for the results to be accidental.

The absence of so many husbands at the War will probably render the birth-rate for 1916 even smaller. After that, the death of so many young men in action must for a few years increase the existing disproportion of the two sexes and cause the numerical predominance of the female sex to be even greater than before, and still further militate against the birth-rate.

The overwhelming importance of the subject led to the formation of the "National Birth-rate Commission," instituted with official recognition, by the National Council of Public Morals—for the Promotion of Race Regeneration—Spiritual, Moral and Physical. The Rt. Revd. Bishop Boyd Carpenter, K.C.V.O., presided over the Commission, which took a great deal of evidence and published it, together with their Report, in May, 1916.

The seriousness of the declining birth-rate has been the main motive power in bringing about the Notification of Births Acts and the advocacy of Maternity and Infant Welfare Centres, with the object of the better preservation of the infants that are born alive. The need of Maternity and Infant Welfare Centres will be dealt with in a separate Report.

The importance of the declining birth-rate has also greatly influenced the recent administrative action of the Government in connection with Venereal Diseases, in the hope of diminishing the serious loss of infant life in the form of abortions and still-births, so large a proportion of which are due to Venereal Diseases.

In the following tables the birth-rates of the different districts in the County are given for the year 1915. The average birth-rate for the 10 years 1905—1914 is also given for comparison.

## BIRTH-RATE FOR 1915, PER 1,000 OF THE POPULATION.

URBAN DISTRICTS.	RATE.	RURAL DISTRICTS.	RATE.
Warsop .. ..	38.1	Skegby .. ..	31.2
Mansfield Woodhouse ..	32.5	Misterton .. ..	26.2
Worksop .. ..	29.5	Stapleford .. ..	24.8
Eastwood .. ..	28.9	Basford .. ..	24.5
Mansfield .. ..	28.6	East Retford .. ..	22.7
Kirkby-in-Ashfield ..	28.5	Newark .. ..	20.5
Sutton-in-Ashfield ..	27.9	Kingston and Ratcliffe ..	20.3
Hucknall .. ..	27.1	Blyth and Cuckney ..	19.9
Arnold .. ..	26.8	Southwell .. ..	19.1
Huthwaite .. ..	26.2	Bingham .. ..	17.3
Carlton .. ..	23.0	Leake .. ..	17.2
Beeston .. ..	22.6	MEAN OF RURAL DISTRICTS	22.5
East Retford .. ..	22.2		
Newark .. ..	22.2		
West Bridgford .. ..	13.5		
MEAN OF URBAN DISTRICTS	26.4		

AVERAGE BIRTH-RATE FOR THE TEN YEARS, 1905-1914,  
PER 1,000 OF THE POPULATION.

URBAN DISTRICTS.	RATE.	RURAL DISTRICTS.	RATE.
Warsop .. ..	39.7	Skegby .. ..	31.8
Mansfield Woodhouse ..	38.8	Stapleford .. ..	28.0
Huthwaite .. ..	34.7	Basford .. ..	27.1
Sutton-in-Ashfield ..	32.6	Misterton .. ..	26.0
Kirkby-in-Ashfield ..	32.1	Newark .. ..	23.1
Mansfield .. ..	31.3	Blyth and Cuckney ..	22.5
Worksop .. ..	30.6	East Retford .. ..	21.5
Hucknall .. ..	29.3	Southwell .. ..	20.8
Arnold .. ..	27.5	Leake .. ..	20.6
Carlton .. ..	27.0	Bingham .. ..	19.9
Eastwood .. ..	26.6	Kingston and Ratcliffe ..	18.7
Beeston .. ..	26.3	MEAN OF RURAL DISTRICTS	24.5
Newark .. ..	25.4		
East Retford .. ..	24.8		
West Bridgford .. ..	15.7		
MEAN OF URBAN DISTRICTS	29.3		

In accordance with the rules of the Central Midwives Board, notices of 107 still-births were sent to the County Council by certified midwives during the year 1915, compared with 129 for the previous year. These must be a very small portion of the whole number of still-births occurring in the County during the year. And yet in many instances the distinction between live-birth and still-birth is so fine as to leave the door open to serious dangers.



### ILLEGITIMATE BIRTHS.

In the whole County there were 372 illegitimate births, or a proportion of 42 per 1,000 registered births, compared with 45 per 1,000 the previous year. In the Urban Districts there were 43·9 per 1,000 births, and in the Rural Districts 38·1. The infantile mortality among the illegitimate children was 166 per 1,000 births, compared with 110 for the legitimate.

The terrible mortality, which always afflicts in varying degree illegitimate offspring, is one of the evils of illegitimacy. This great mortality cannot be considered an unimportant evil, as it is associated with a proportionately increased amount of sickness and defective health amongst the survivors for which, usually, the State is required to pay.

#### THE NUMBER OF LEGITIMATE AND ILLEGITIMATE BIRTHS FOR EACH DISTRICT, IN THE YEAR 1915.

URBAN DISTRICTS.					Births.	Legiti- mate.	Illegiti- mate.
Mansfield	..	..	..	..	1,184	1,136	48
Newark	..	..	..	..	350	326	24
East Retford	..	..	..	..	279	266	13
Arnold	..	..	..	..	306	292	14
Beeston	..	..	..	..	256	244	12
Carlton	..	..	..	..	389	366	23
Eastwood	..	..	..	..	140	135	5
Hucknall	..	..	..	..	420	394	26
Huthwaite	..	..	..	..	143	133	10
Kirkby-in-Ashfield	..	..	..	..	465	452	13
Mansfield Woodhouse	..	..	..	..	409	398	11
Sutton-in-Ashfield	..	..	..	..	656	634	22
Warsop	..	..	..	..	201	197	4
West Bridgford	..	..	..	..	178	173	5
Worksop	..	..	..	..	611	578	33
TOTAL OF URBAN DISTRICTS					5,987	5,724	263
RURAL DISTRICTS.							
Basford	..	..	..	..	1,022	978	44
Bingham	..	..	..	..	236	236	..
Blyth and Cuckney	..	..	..	..	93	88	5
East Retford	..	..	..	..	317	307	10
Leake	..	..	..	..	61	59	2
Misterton	..	..	..	..	104	104	..
Newark	..	..	..	..	163	160	3
Skegby	..	..	..	..	243	228	15
Southwell	..	..	..	..	366	345	21
Stapleford	..	..	..	..	243	234	9
Kingston and Ratcliffe	..	..	..	..	8	8	..
TOTAL OF RURAL DISTRICTS					2,856	2,747	109



## DEATHS.

The number of civilian deaths registered in the County in 1915 was 4,943, compared with 4,574 in the previous year. *Of these, 999 occurred in infants under one year of age.*

These numbers give an absolute increase of 369 deaths amongst a *diminished* population, and are the largest numbers yet registered. When the transferable deaths are taken into consideration, the figures 369 are increased to 372. Particular attention is directed to these figures because they are beyond dispute.

The death-rate *per* 1,000 civilians living is a matter of opinion, because the degree of diminution of population is not exactly known. All we know for certain is that the civil population has diminished.

Attention is called to the increase of the death-rate in order to emphasize the importance of not relaxing the regular Public Health Administration during the War, and the first year after the War, which may be the most dangerous time. Attention is also called to the increase of *uncertified* deaths, from 74 in 1914 to 120 in 1915.

A few towns, such as Newark, Retford, Worksop and Southwell had comparatively large numbers of troops billeted upon them during 1915. This tends to overcrowding and distracts the householders from the care of their families. It also puts a strain upon the sanitary administration. These causes combined may have contributed to the increased mortality in those towns and are part of the price of the War. As previously mentioned, any deaths of soldiers in camps, billets, or even in their own homes when on leave, are *excluded* from the *civilian* death-rate.

The Registrar-General sent to the County Medical Officer triplicate forms concerning each of 486 deaths which, for statistical purposes, need to be transferred from the place of registration to other districts. Each of these "transferable deaths" has to be allotted to the correct sanitary district in this or some other county, forwarded to the District Medical Officer of Health for verification, collected again, and finally returned to the Registrar-General. All this involves much time and correspondence, but immensely improves the accuracy of the Death Statistics.



A small number of births are also treated as transferable.

These transfers are necessary in order that the National Vital Statistics may be published by the Registrar-General for *Administrative* County areas, instead of only for Registration Counties and Unions.

When the necessary correction has been made for transferable deaths, the *nett* number of deaths belonging to the County becomes 5,068, and the *nett* death-rate **14.3**, the highest death-rate since 1907.

The **Nett Death-rate**, or Corrected Death-rate, as ascertained in this way, is the one upon which reliance should be placed both for statistical and for Public Health purposes.

There is, however, a further correction which is of interest and of value. It depends upon age and sex distribution, and has been used in these Reports for the past ten years. In the first instance the 'Factor' was worked out by the County Medical Officer from the Census returns of 1901. It has been explained at greater length in previous Reports that the death-rate varies not only at different ages but in the two sexes; and consequently it is of importance to know not only the proportion of males to females, but also the proportion of the population living at the different age periods. This was last ascertained at the Census of 1911. It varies considerably between the Urban and the Rural Districts; and, further, the proportions for the County of Notts. vary somewhat from those obtaining for the whole of England. By the kindness of the Registrar-General, the Medical Superintendent of Statistics, Dr. Stevenson, has been permitted to supply the 'factors' necessary for the correction of the results of these variations. The corrected rates show the death-rates that would have occurred if the age and sex constitution of Notts. had been the same as for the whole of England.

The death-rate thus obtained is called the **Standard Death-rate**, and amounted in 1915 to **13.9** for this County.

The value of this correction is very greatly diminished by the great change in the proportion of males to females since the Census, by the withdrawal of several millions of men for the War.

The reasons for adopting a lowered estimate of the civilian population on account of the absence of so many men with the Army are fully set out on p. 12.



The following table gives the death-rates of the different districts corrected for transferable deaths, and calculated from the estimated civil population given by the Registrar-General.

NETT OR CORRECTED DEATH-RATES PER 1,000 OF THE  
POPULATION FOR THE YEAR 1915.

URBAN DISTRICTS.	RATE	RURAL DISTRICTS.	RATE
Kirkby-in-Ashfield .. ..	16·8	Skegby .. ..	17·2
Newark .. ..	16·7	Southwell .. ..	15·7
Eastwood .. ..	16·3	Leake .. ..	15·5
Sutton-in-Ashfield .. ..	15·8	Misterton .. ..	15·1
East Retford .. ..	15·7	East Retford .. ..	14·6
Arnold .. ..	14·8	Bingham .. ..	14·4
Worksop .. ..	14·6	Basford .. ..	14·3
Hucknall .. ..	14·1	Blyth and Cuckney .. ..	13·2
Mansfield .. ..	14·0	Newark .. ..	12·8
Mansfield Woodhouse .. ..	13·2	Stapleford .. ..	12·1
Warsop .. ..	12·7	Kingston and Ratcliffe .. ..	7·6
Carlton .. ..	12·4		
Beeston .. ..	12·3		
Huthwaite .. ..	11·0		
West Bridgford .. ..	9·8		
<b>Mean of Urban Districts</b>	<b>14·2</b>	<b>Mean of Rural Districts</b>	<b>14·5</b>

In order to eliminate as far as possible temporary and accidental variations, it is always useful to estimate the death-rate for a period of years; and it is usual to take 10 year periods where possible. This is particularly valuable at the present time, because of the great uncertainty as to the true numbers of the civil population.

AVERAGE NETT DEATH-RATE FOR THE TEN YEARS  
1905-1914, PER 1,000 OF THE POPULATION.

URBAN DISTRICTS	RATE	RURAL DISTRICTS	RATE
Newark .. ..	14·5	Southwell .. ..	14·5
Worksop .. ..	13·9	Misterton .. ..	14·0
Mansfield Woodhouse .. ..	13·9	East Retford .. ..	13·5
Eastwood .. ..	13·8	Blyth and Cuckney .. ..	13·5
Sutton-in-Ashfield .. ..	13·7	Leake .. ..	13·2
Hucknall .. ..	13·6	Bingham .. ..	13·0
Huthwaite .. ..	13·6	Basford .. ..	12·7
Warsop .. ..	13·6	Stapleford .. ..	12·7
Arnold .. ..	13·5	Newark .. ..	12·6
East Retford .. ..	13·5	Skegby .. ..	12·5
Mansfield .. ..	13·3	Kingston and Ratcliffe .. ..	8·8
Kirkby-in-Ashfield .. ..	11·5		
Beeston .. ..	11·4		
Carlton .. ..	10·9		
West Bridgford .. ..	7·7		
<b>Mean of Urban Districts</b>	<b>12·9</b>	<b>Mean of Rural Districts</b>	<b>13·2</b>

### ZYMOTIC OR EPIDEMIC DEATH-RATE.

The death-rate from the seven principal epidemic diseases, namely, Small Pox, Scarlet Fever, Whooping Cough, Enteric Fever, Diphtheria, Measles, and Diarrhoea was 1.39 per 1,000 for the whole County, compared with 1.27 for 1914. The Urban rate was 1.61 and the Rural 1.0.

### INFANTILE DEATH-RATE.

The rate for the whole County in 1915 was 112 per 1,000 births. For the Urban Districts the rate was 125, and for the Rural 87.

#### RATE OF INFANTILE MORTALITY PER 1,000 BIRTHS.

		WHOLE COUNTY.		URBAN DISTRICTS.		RURAL DISTRICTS.
1895	..	154	..	180	..	128
1896	..	138	..	149	..	122
1897	..	152	..	169	..	128
1898	..	151	..	166	..	129
1899	..	161	..	178	..	135
1900	..	160	..	173	..	141
1901	..	145	..	154	..	132
1902	..	138	..	151	..	115
1903	..	134	..	141	..	122
1904	..	139	..	150	..	118
1905	..	126	..	133	..	114
1906	..	121	..	131	..	104
1907	..	127	..	134	..	113
1908	..	119	..	128	..	102
1909	..	106	..	112	..	93
1910	..	110	..	122	..	85
1911	..	125	..	137	..	115
1912	..	93	..	95	..	87
1913	..	101	..	110	..	82
1914	..	107	..	112	..	96
1915	..	112	..	125	..	87

In the Urban Districts the increase was chiefly due to Congenital Debility, including Premature Birth, Pneumonia, and Bronchitis. In the Rural Districts the main causes were the same. Neither in the Urban nor in the Rural Districts was Diarrhoea, which is so much under control, a prominent cause of death. And yet the death-rate has increased.



## RATE OF INFANTILE MORTALITY FOR 1915, PER 1,000 BIRTHS.

URBAN DISTRICTS.	RATE.	RURAL DISTRICTS.	RATE.
Sutton-in-Ashfield ..	184	Skegby .. ..	127
Kirkby-in-Ashfield ..	172	Basford .. ..	103
Eastwood .. ..	165	Stapleford .. ..	90
Mansfield Woodhouse ..	144	Misterton .. ..	86
Arnold .. ..	143	East Retford .. ..	82
Newark .. ..	128	Leake .. ..	81
Mansfield .. ..	117	Newark .. ..	79
Hucknall .. ..	114	Bingham .. ..	59
Worksop .. ..	112	Southwell .. ..	54
Carlton .. ..	102	Blyth and Cuckney ..	43
Warsop .. ..	94	Kingston and Ratcliffe ..	00
Huthwaite .. ..	76	MEAN OF RURAL DISTRICTS	87
East Retford .. ..	75		
Beeston .. ..	74		
West Bridgford .. ..	61		
MEAN OF URBAN DISTRICTS	125	<b>Rate for the whole County</b>	<b>112</b>

## AVERAGE RATE OF INFANTILE MORTALITY FOR THE TEN YEARS, 1905-1914, PER 1,000 BIRTHS.

URBAN DISTRICTS.	RATE.	RURAL DISTRICTS.	RATE.
Mansfield Woodhouse ..	146	Stapleford .. ..	124
Sutton-in-Ashfield ..	143	Skegby .. ..	122
Huthwaite .. ..	139	Misterton .. ..	113
Arnold .. ..	138	Basford .. ..	107
Eastwood .. ..	134	Newark .. ..	101
Hucknall .. ..	131	East Retford .. ..	85
Kirkby-in-Ashfield ..	128	Blyth and Cuckney ..	80
Warsop .. ..	128	Southwell .. ..	76
Mansfield .. ..	122	Bingham .. ..	73
Worksop .. ..	114	Leake .. ..	73
Newark .. ..	105	Kingston and Ratcliffe ..	13
East Retford .. ..	101	MEAN OF RURAL DISTRICTS	98
Carlton .. ..	99		
Beeston .. ..	98		
West Bridgford .. ..	61	<b>Rate for the whole County</b>	<b>113</b>
MEAN OF URBAN DISTRICTS	121		

It must be remembered that the Infantile Mortality rate is calculated upon the *actual number of births*, and is unaffected by the uncertainty as to the population at the present time.

By the full employment of all the agencies which are available with the knowledge of the present day, the *infant mortality can be brought down to any point desired* above 50 per 1,000 births, and probably even below that. My suggestion a few years ago that it could readily be reduced to 100 was thought unduly sanguine, but it has long been surpassed.



For many years it was thought the population was increasing too quickly and that there was no advantage, social, economical or national, in attempting to safeguard Infant Life. Such work was considered to be of a purely humanitarian nature, which did not justify a charge upon the rates; neither did it excite much enthusiasm in the benevolent, except among a few kind-hearted and far-seeing persistent workers.

The rapid and progressive fall in the birth-rate has rendered necessary a reconsideration of those views; and the terrible loss of life during the War, accompanied by a still further fall in the birth-rate, have convinced the country that safeguarding Infant Life is an urgent matter of national concern.

While advocating the care of Infant Life and showing concern for the health of children, Medical Officers of Health were looked upon as faddists. The value of life, both adult and infant, to the State was considered a specious argument of doubtful validity.

The pressing need of men for the protection of the Empire during War, has caused all these questions to be regarded from a fresh point of view, or rather, has led to a return to the doctrines of the economists of 40 years ago.

For many years the deaths of infants under one year of age have been calculated separately in proportion to the number of births; and it has been a matter of general comment, especially in London and the large towns, that the Infantile Mortality rate had not fallen in anything like the same proportion as the general Death-rate. This led to closer investigation, which has resulted in the information upon which Infant Welfare work is founded at the present day.

One more point it is needful to mention, as upon this objection has been founded much of the opposition to any expenditure of money upon infant welfare. It has often been stated that the saving of the lives of many delicate children under the age of one year, leads to a larger death-rate between the ages of 1 and 5 and 5-15. In fact, that it is in many cases a postponement of death rather than a real saving of life.

This important question has been very carefully and thoroughly investigated by Dr. Newsholme, the Medical Officer to the Local Government Board, and it has been very decisively and conclusively shown that, on the contrary, where the infantile mortality rate has been reduced, there is



also a reduction in the death-rate from 1 to 5 years, and a less marked improvement from 5 to 15. And, further, that where the Infantile Mortality rate is high, the death-rate at the higher ages, 1-5 and 5-15 is also high.

Children that have been most delicate and fragile as babies, have lived to play a very vigorous and sometimes brilliant part in the present War.

Much has been expected and much has been gained by improvements in general sanitation and housing ; but progress is expensive and slow, and without the teaching and the co-operation of the mothers, sanitation alone is not sufficient.

It has been truly said, a good, careful, intelligent, well-instructed mother, in the midst of bad surroundings, gives her baby a better chance than a careless, ignorant or drunken mother in good surroundings.

The causes of Infant Mortality are many and exceedingly complex ; it must not be expected, therefore, that a few months, or even a year or two, of infant welfare work and health-visiting will reduce the infantile mortality rate to a negligible figure. Long and persistent efforts are needed, especially in the direction of *home visiting*, and eventually the reward is sure, if slow. I press the *home visiting* because the general experience has been that only about a quarter of the mothers attend the Infant Welfare Centres, and those generally the mothers least in need of advice and help.

“ And the children—the little children,—  
 “ Do you hear their pitiful cry ?  
 “ O brothers, we must seek them,  
 “ Or there in the dark they die ! ”

Next it will be well to consider what infantile mortality rate we should aim at attaining, and what may be considered to show the reasonable success of preventive efforts in safeguarding infant life.

There are portions of this County where the rates for 1915 were over 180, and over 170, and in one part of a district over 200.

On the other hand, one Rural District had only 43 deaths per 1,000 births ; another large Rural District only 54 ; and populous Urban Districts of over 10,000 population, had rates of 65, 74 and 75.

It has been estimated that doctors' babies have a mortality of only 40 per 1,000, and the professional classes generally only 50.

Two villages with a population well over 400, have had no infant death for three years.

The small commune of Villiers le Duc, in France, had no infant or maternal death for the ten years 1893-1903.

This has been vouched for by the French Academy of Medicine. The whole details are most interesting.

I think the above figures show not only the large variation in the Infantile Mortality under different circumstances ; but still more the great extent to which the mortality is under control whenever it is considered to be "worth while."

When it is remembered that Tuberculosis, the most-widely prevalent of all fatal diseases, causes 7·9 per cent. of the total deaths, whereas the Infantile Deaths amount to 21·9 per cent. of the total, there can be little question that prevention is "worth while."

The following experience of Huthwaite, where a part-time Health Visitor has only been working for two years, is too striking to be passed over in silence. It is true, steady work has been done by the Medical Officer of Health for several years in the way of urging the paving of backyards, and spreading information as to the rearing of babies ; but the main change has been the visiting of every mother soon after the birth of her child.

Huthwaite.	Year.	Infant Mortality per 1,000 births.	
	1897 ..	..	250
	1898 ..	..	234
	1899 ..	..	327
10 years' average ..	1895-1904 ..	..	200
	1913 ..	..	139
	1914 ..	..	80
	1915 ..	..	76

In Warsop, where a small Infant Mortality Centre was established in 1914, the following are the figures :—

Warsop.	Year.	Infant Mortality Rate per 1,000 births.	
	1903 ..	..	236
10 years' average ..	1904-1913 ..	..	129
	1913 ..	..	138
	1914 ..	..	137
	1915 ..	..	94



Of course, the above are specially favourable examples, and it is not always quite so easy as the previous figures might lead one to suppose ; but with sufficient trouble and energy it can be done. Very much depends upon the personality and the training of the Health Visitors and the support they receive.

The training of a Health Visitor is highly specialized. The Royal Sanitary Institute have for several years held examinations and granted Certificates for Health Visitors and for Sanitary Inspectors. This year, in response to the Memoranda issued by the Local Government Board and the Board of Education on Infant Welfare Work, the Royal Sanitary Institute have instituted a special examination and granted a special Certificate for Maternity and Child Welfare workers. They have issued a Syllabus for the training required, with detailed notes on some of the items included under the headings in the Syllabus. It cannot be too widely known that for the successful working of Infant Welfare Centres and Maternity Centres, much more is needed than the knowledge of the average district nurse, whose training and work tend to unfit her for successful Health Visiting.

Florence Nightingale, with her marvellous insight, recognised this fact long before the appointment of Health Visitors became general, when she wrote, in a letter to the Chairman of the Buckinghamshire Education Committee :  
*" The rural health visitor must be created . . . We must train them for the purpose, and we must not mix up nursing the sick with health in the home."*

The following is the Scheme which was prepared in 1914 and 1915 for Health Visiting in this County, but the County Council decided to postpone carrying it into effect until after the War. In the meantime, the passing of the Notification of Births (Extension) Act, July 29th, 1915, has rendered a complete reorganisation of the Scheme necessary, and has rendered the co-operation of County Councils much more difficult. A new Scheme is in preparation.

SCHEME FOR THE NOTIFICATION OF BIRTHS AND  
HEALTH VISITING IN PART OF THE COUNTY OF  
NOTTINGHAM, IN COMBINATION WITH SCHOOL  
NURSES' WORK.

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SHIRE HALL,

NOTTINGHAM,

*January 6th, 1915.*

From communications that have been received it is understood that the six Urban and eight Rural Districts, with a combined population of 149,532, and 3,362 births, have not adopted the Notification of Births Act.

It is therefore recommended that the County Council should adopt the Act for the portions of the County enumerated and shown on the accompanying map.

These Districts could be combined so as to form eight areas, to each of which one Health Visitor should be appointed. The work of home visiting, which is a necessary complement to the Notification of Births, could be combined with that of School Nurse for each area, and then eight Health Visitors would suffice for that portion of the County. Their salaries and travelling expenses would be apportioned between the Education Committee and the Health Committee in *approximately* equal proportion.

This scheme would necessitate the re-arrangement of the existing School Nurses' areas (which are at present too large), and the employment of five School Nurses for School Work alone (including Dental work and the Special Eye Cases) in place of the present six. There would then be five whole-time and eight part-time School Nurses in place of six whole-time Nurses, as at present ; and there would be eight part-time Health Visitors for the Notification of Births.

The result would be thirteen Nurses in place of the six employed at present. Five of the thirteen would be paid entirely by the Education Committee, and eight partly by



the Education Committee and partly by the Public Health Committee. The Tuberculosis Health Visitors would be kept entirely separate. The Midwives Inspection might be combined, but could be subsequently arranged.

I understand that half the cost of the eight part-time Health Visitors employed in the Notification of Births' work, would be repaid by the Local Government Board, leaving the *net* cost to the County of the Health Visiting, equivalent to that of two whole-time Health Visitors, or about £250 per annum, including travelling and uniforms. There would be, in addition, a small sum for printing and postages, say £50, some of which would be non-recurring, and the time of one clerk at £50 per annum.

The doubling of the number of Nurses or Health Visitors would necessitate a considerable increase in the work of supervision and organisation, and an increase in the Medical staff, mainly for the purpose of School Medical Inspection, owing to an increase of 50 per cent. in the number of children to be inspected from April next. Consequently, £100 would be sufficient to charge to the Notification of Births' account.

The present time is not a favourable one for obtaining Nurses or Medical Officers. For these reasons, together with the extra responsibilities consequent upon the War, and the serious difficulties in reorganising the Tuberculosis Department, I should advise that the adoption of the Notification of Births Act in this County should not come into operation earlier than October 1st, 1915, or January 1st, 1916.

### **ADMINISTRATION OF MIDWIVES ACT, 1902.**

Until the Midwives Act has been amended and the position of the Local Supervising Authority put upon a more satisfactory basis, the Health Committee do not feel that the Council are justified in incurring large expenditure in the administration of this Act. In the meantime the County Medical Officer has been instructed not to continue any arrangements for the routine inspection of the registers and bags of appliances, etc., of the Midwives ; but to employ those of the School Nurses who have Certificates from the Central Midwives' Board, in investigating any cases of puerperal fever or septic infection where the continuance of the midwife in practice without warning and without disinfection might endanger life.



Some useful work has been accomplished in this direction ; but the present position is in the highest degree unsatisfactory and needs serious protest.

The New Rules of the Central Midwives' Board, which came into operation upon July 1st, 1916, are in some respects an improvement upon the old ones. A copy has been sent, free of cost, to each Midwife in the County who has notified her intention to practise. They form a useful standard ; but, unfortunately, the Central Midwives' Board fail to carry out their own Rules, and do not support the County Council in their endeavours to enforce the Rules, and to carry out the supervision of the Midwives practising in the County, which is imposed upon County Councils by Section 8 of the Midwives Act. Consequently, the County Medical Officer has been instructed not to bring forward any cases for submission to the Central Midwives' Board unless the evidence is quite incontrovertible—a condition which seldom or never arises.

This is no great drawback, since there is no power under the Midwives Act, as at present administered, of preventing a midwife who has been taken off the Roll, from practising just as freely as before. The number of uncertified Midwives and " Helps " practising in the County is large, and the Urban District Council of Sutton-in-Ashfield has recently called the attention of the County Council to this fact. The fault is not on the part of the County Council, but of the Law, and of an uninformed Public Opinion.

Much good, however, can gradually be accomplished by local effort in spite of the hostility of the Central Midwives' Board. During the last two or three years the Local Government Board have been most willing to assist County Councils by paying half the cost of the administration of Maternity and Infant Welfare Centres, and especially of the more difficult *ante-natal* work in the Centres, which necessitates the employment of first-class midwives. In parts of the County where no certified midwife is available, it is possible for the County Council to obtain grants from the Local Government Board for providing midwives, under strict limitations.\*

Very much benefit might also be expected if carefully selected women were trained as Midwives by the County

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\* See the forty-fourth Annual Report of the Local Government Board, 1914-15, Part iii, page 31.



Council through the Public Health Committee. During the past few years the Notts. County Training Fund for Midwives have paid a part, or the whole, of the cost of the training as Midwives of eight women selected by the County Medical Officer. The fund, which amounted in all to only £187 17s. 5d. was raised by voluntary contributions of a very small number of well-wishers, and unfortunately, it is now exhausted. The Chairman of the Health Committee was mainly instrumental in raising the money, and kindly acted as treasurer. The fact that each of the women, after being trained at the Maternity Charity and District Nurses Home, Plaistow, passed the examination of the Central Midwives' Board and obtained her certificate, shows that the selection was carefully made. It is further satisfactory to know that each of the women is now practising as a Midwife in the County of Notts. Applications continue to be received, but no more voluntary contributions can be raised ; and this most useful work cannot be continued unless the Health Committee, as the Local Supervising Authority for Midwives, are enabled to take the matter up.

The prevention of the spread of Puerperal Fever does not depend very greatly upon the goodwill of the Central Midwives' Board. A great deal can be done under the Public Health Acts. A midwife attending a case of Puerperal Fever in any of its forms, who in spite of warning, continued to attend other Maternity cases without adequate disinfection, and who spread such a fatal disease, would incur very grave responsibilities, which might be brought home to her. Whether damages could be successfully claimed from an association employing such a Midwife, may be doubtful. Nevertheless, such cases do not now occur. The spread takes place *before* written warning, while the septic case remains unnotified.

So much has been done in this County, ever since the Midwives Act came into operation, in the way of looking after cases of Puerperal Fever, that it is not surprising that Nottinghamshire compares very favourably with other Counties in respect of the amount of Puerperal Fever.

The Supplement to the 44th Annual Report of the L.G.B. contains a Report on *Maternal Mortality* in connection with *Childbearing*. From this Report it may be seen that in fifteen Counties and ten County Boroughs, the number of deaths from Puerperal Fever exceeded the number of



notifications. In Nottinghamshire though much remains to be desired in the way of *early* notification, the number of notifications has always considerably exceeded the deaths, thus showing that few serious cases are hidden.

In the Appendix to the same Report, pp. 118, 119, it is shown that Nottinghamshire comes forty-fifth in the list of the Administrative Counties of England and Wales as regards the proportion of deaths from Puerperal Fever per 1,000 births, there being only 17 with a smaller mortality.

In the following table the figures have been extracted from the Local Government Report.

ADMINISTRATIVE COUNTY.	1911-1914. DEATH RATE PER 1000 BIRTHS FROM			TOTAL BIRTH- RATE 1913.	INFANT MOR- TALITY 1913.
	(1) Puerperal Fever.	(2) Other Acci- dents and Diseases of Preg- nancy and Childbirth.	(1) and (2) together (3)		
Leicestershire ..	1.43	2.78	4.21	22.8	93
Derbyshire ..	1.32	2.68	4.00	25.5	111
Yorks., West Riding ..	1.30	3.32	4.62	24.8	120
Nottinghamshire ..	<b>1.11</b>	<b>2.15</b>	<b>3.26</b>	26.1	102
Lincolnshire, Lindsey	1.08	2.54	3.62	23.5	100
Lincolnshire, Kesteven ..	1.03	2.89	3.92	22.3	90
County Borough— Nottingham City ..	1.65	2.14	3.79	22.7	131
The Highest County, (Merioneth)	3.30	5.39	8.69	18.2	93
The Lowest County, (Rutland)	0.62	1.25	1.87	19.1	92

From the above table it is evident that Nottinghamshire comes out exceedingly well, having the lowest figures in column 3 of any of the adjoining Counties.

The following table is also most instructive as showing the great diminution in the proportion of deaths from Puerperal Fever, amounting to 46.2 per cent. in the 10 years after the



operation of the Midwives Act, and 65·4 per cent. for the year 1915 ; whereas the maternal deaths from other complications of Childbearing have fallen barely 18 per cent. for the same 10 years, and have actually *increased* ·24 per cent. during 1915.

Puerperal Fever is a notifiable disease and is under the close supervision of the Public Health Authorities. The 'other complications of Childbearing' are not under the control of the Public Health Authorities.

### NOTTINGHAMSHIRE.

3-YEAR PERIODS.	Number of Births.	Infantile Death-rate per 1000 Births.	Maternal Death-rate from Puerperal Fever per 1000 Births.	Maternal Death-rate from other complications of child bearing per 1000 Births.
1901—1903	26,628	139	1·3	2·9
1911—1913	28,035	106	·7	2·38
Year 1915	8,843	112	·45	3·61

The above figures ought to convince the most indifferent of the urgent need of more effective supervision of Midwives ; and of the formation of Maternity Centres and Ante-natal Clinics which the County Council have power to establish, and one-half the cost of which would be repaid by the Local Government Board.

It is important to note that the number of certified Midwives who have notified their intention to practise in the County, has fallen from 220 in 1912 to 178 in 1915.

The number of Maternity cases attended by certified Midwives was 5,072, out of 8,843 births in the County. The remainder includes the cases attended by doctors where either a Midwife or an unqualified woman acts as monthly nurse, and a considerable number of cases attended entirely by unqualified midwives. In these latter cases, a doctor is called in if serious difficulty arises. In this connection it is important to note that, as reported in *The Lancet*, June 3rd, 1916, the General Medical Council have at last taken action

at the instigation of the Central Midwives' Board, and investigated three cases of alleged "covering" of unqualified midwives by doctors.' One doctor was taken off the Medical Register, and two were seriously warned.

The number of Midwives who, in compliance with Section 10 of the Midwives Act, have notified to the Local Supervising Authority their intention to practise in this County each year is shown in the following table :—

Year.							Number of Midwives.
1903	..	..	..	..	..	..	40
1904	..	..	..	..	..	..	93
1905	..	..	..	..	..	..	184
1906	..	..	..	..	..	..	181
1907	..	..	..	..	..	..	183
1908	..	..	..	..	..	..	177
1909	..	..	..	..	..	..	195
1910	..	..	..	..	..	..	203
1911	..	..	..	..	..	..	217
1912	..	..	..	..	..	..	220
1913	..	..	..	..	..	..	202
1914	..	..	..	..	..	..	197
1915	..	..	..	..	..	..	178

Of the 178 Midwives who notified their intention to practise in 1915, 99 had been trained, and 79 received their certificates because they were in bona fide practice before July, 1901.

#### MATERNITY CASES ATTENDED BY CERTIFIED MIDWIVES WITHOUT A DOCTOR.

Year.							Number of Cases.	Percentage of Total Births.
1907	..	..	..	..	..	..	4,150	46·3
1908	..	..	..	..	..	..	4,290	43·0
1909	..	..	..	..	..	..	4,166	42·0
1910	..	..	..	..	..	..	4,120	43·1
1911	..	..	..	..	..	..	4,339	45·9
1912	..	..	..	..	..	..	5,264	57·1
1913	..	..	..	..	..	..	6,339	67·6
1914	..	..	..	..	..	..	5,487	57·4
1915	..	..	..	..	..	..	5,072	57·3

Out of 5,072 maternity cases, medical help was advised in 344, or 6·7 per cent., compared with 7·6 per cent. in 1914.



## TABLE OF NOTICES, ETC., RECEIVED BY THE NOTTS.

## LOCAL SUPERVISING AUTHORITY.

Year	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
Records of sending for Medical help..	44	177	282	282	340	321	365	466	534	416	421	344
Notices of still-birth	3	68	123	100	101	106	113	142	110	147	129	107
Notices of death of child before arrival of doctor ..	0	12	19	15	21	36	26	14	16	12	8	8
Notices of death of mother before arrival of doctor ..	0	0	0	0	1	0	0	2	1	0	1	1
Notices of laying out the dead ....	0	0	0	0	0	0	0	35	64	29	23	16
Changes of address notified to the Central Midwives Board .....	0	51	35	45	55	54	67	55	85	40	20	14
Changes of name notified to the Central Midwives Board .....	0	0	0	5	4	5	5	4	2	4	0	0
Deaths of Midwives notified to the Central Midwives Board .....	0	0	0	0	3	3	3	0	4	0	0	0
	47	308	459	447	525	525	579	718	816	648	602	490

*Ophthalmia Neonatorum.*—Thirty-two\* cases of discharge from the eyes in the new-born were mentioned in the records of sending for medical help, compared with 28 in 1914 and 9 in 1913. The large increase is due to more care on the part of the Midwives in reporting cases, and there is no evidence of any increase in the disease. A large proportion of the cases are due to infection, during birth, with the gonococcus, which is the infective organism of gonorrhoea. The disease is a very common cause of blindness. Every case reported is visited by one of the Inspectors of Midwives, and enquiries are made whether efficient steps are being taken to treat the disease.

\* 36 cases only were notified to the Medical Officers of Health in the year.

CLASSIFICATION OF THE CAUSES FOR WHICH MEDICAL HELP  
WAS SOUGHT DURING THE YEAR 1915.

PREGNANCY—

Abortion .. .. .	7
Deformed Pelvis .. .. .	—
Excessive Sickness .. .. .	1
	— 8

LABOUR—

Malpresentation .. .. .	29
Where no presentation could be made out .. .. .	—
Excessive bleeding .. .. .	12
Placenta retained for more than two hours .. .. .	23
Ruptured perinæum .. .. .	38
Delay in labour .. .. .	74
Debility .. .. .	2
By patient's wish.. .. .	3
Placenta Prævia .. .. .	2
Fits .. .. .	3
Uterine Inertia .. .. .	4
	— 190

LYING-IN—

Rise of temperature .. .. .	15
White leg .. .. .	6
Pain and swelling of breasts .. .. .	—
Sepsis .. .. .	2
	— 23

THE CHILD—

Convulsions .. .. .	7
Malformation .. .. .	15
Dangerous feebleness .. .. .	27
Inflammation of eyes .. .. .	32
Prematurity .. .. .	13
Still birth .. .. .	3
Jaundice .. .. .	1
Rash .. .. .	—
Other causes .. .. .	25
	— 123



## ISOLATION HOSPITALS.

This subject was treated at considerable length in the year 1914 in my Annual Report for 1913. Nothing has arisen since that date to justify any alteration of opinion.

## THE NEED OF A BACTERIOLOGICAL LABORATORY.

In the year 1904, in my Annual Report for 1903, the following occurs:—

“ One of the greatest needs of the County is a Laboratory where throat swabs could be examined for Diphtheria Bacilli, the blood tested for the Widal reaction for Enteric Fever, and the sputum for Tubercle Bacilli. The Public Health Service is seriously handicapped in its endeavours to combat the spread of these diseases by the want of the necessary equipment.”

Since that date arrangements have been made for the examination of sputum at the Sanatorium, but there has been some difficulty in keeping up the work with the frequent change of resident Medical Officers. The work could be better done in a County laboratory at the Shire Hall.

The prevalence of Diphtheria is not diminishing; little progress can be expected in dealing with this dangerous infectious disease until free examination of throat “swabs” from suspected cases and ‘contacts’ is afforded not only for the the School Medical Officers, but for every general practitioner in the County. School epidemics cannot be adequately dealt with otherwise, and much school closure would be obviated.

Although the prevalence of Enteric Fever has been so greatly diminished of late years by continued sanitary effort, it is still necessary occasionally to obtain information by means of the Widal test, and to distinguish between Typhoid and Paratyphoid. For these purposes a laboratory should be available.

There is no adequate reason why the microscopic examination necessary for detecting Spirochaetes and for Gonococci, in connection with the Scheme for Venereal Diseases, should not



be conducted in this laboratory; but there are obvious and great advantages. There is much need, too, for the eye discharges from all cases of suspected Ophthalmia Neonatorum, notified by Midwives, to be examined microscopically for Gonococci.

In addition, there would be no difficulty in carrying out the simple chemical analyses needed for the examination of Sewage Effluents in the same laboratory. At present there is no means of carrying out the simplest tests; and the arrangement which was formerly made with the City Analyst has come to an end.

The highly complex Wassermann tests for Venereal Diseases would, in any case, require to be conducted elsewhere by a specialist who devotes his time mainly to this one test.

Finally, in support of the statement that a laboratory is a present-day necessity, paragraph 141 of the Final Report of the Royal Commission on Venereal Diseases is of great value, as giving the considered opinion of a very strong and able body of men. *"Within recent years it has been conclusively shown that the prevention and often the cure of many infectious diseases depend largely upon efficient organisation of pathological laboratories. Prior to the outbreak of the War, the House of Commons, in the Estimates for 1914-15, voted a grant of £50,000 to assist in the provision of laboratory facilities, with a view to the prevention, diagnosis and treatment of disease in general. This was intended to be a grant in aid of the provision of pathological laboratories by the large Public Health Authorities, and at the outset of the War, we were informed that the Local Government Board had in readiness for issue, a circular letter inviting County Councils and County Borough Councils to submit schemes, each for its own area, for the provision of such laboratories. It was suggested to us that 75 per cent. of the cost of these laboratories should be provided by the Treasury, the local authorities bearing the remainder of the expense."*

## NOTIFIABLE INFECTIOUS DISEASES.

### SMALL POX.

The following table gives the number of cases which have been notified each year since 1895, and the number of deaths.



	SMALL POX.		
	Cases.	Deaths.	Case Fatality per cent.
1895	4	..	..
1896	1	..	..
1897	..	..	..
1898	..	..	..
1899	..	..	..
1900	..	..	..
1901	6	1	16·6
1902	2	..	..
1903	183	8	4·37
1904	101	3	2·97
1905	92	3	3·25
1906	2	..	..
1907	..	..	..
1908	..	..	..
1909	..	..	..
1910	4	1	25·00
1911	..	..	..
1912	1	..	..
1913	..	..	..
1914	..	..	..
1915	..	..	..

### VACCINATION.

The most efficient means for the prevention of Small Pox are vaccination and re-vaccination.

The number of unvaccinated persons is increasing rapidly and there is much reason to fear they will prove a great danger should an outbreak of Small Pox get beyond the control of the small number of permanent Health Officers.

The Small Pox Hospitals at present existing in the County are not calculated to deal with an epidemic such as occurred in 1903—1905, without the aid of vaccination. During 1916 England has seldom been quite free from Small Pox, but each of the numerous outbreaks has been rapidly controlled, though some have reached 10 or 20 cases.

**SCARLET FEVER.**

	SCARLET FEVER.			
	Notified Cases.	Deaths.	Case Fatality per cent.	Attack Rate or Cases per 1,000 of the Population.
1895	540	26	4.8	2.17
1896	833	30	3.6	3.30
1897	824	29	3.5	3.21
1898	732	24	3.2	2.80
1899	1,693	44	2.6	6.36
1900	1,485	45	3.0	5.48
1901	1,080	21	1.9	3.91
1902	829	13	1.5	2.90
1903	870	15	1.7	2.95
1904	984	20	2.03	3.24
1905	1,559	33	2.1	5.01
1906	1,468	28	1.9	4.59
1907	937	23	2.4	2.87
1908	793	23	2.9	2.36
1909	726	9	1.23	2.13
1910	815	13	1.59	2.40
1911	1,221	18	1.47	3.53
1912	1,000	12	1.2	2.81
1913	1,392	17	1.2	3.8
1914	1,956	20	1.02	5.3
1915	1,077	14	1.49	3.03

There is nothing fresh to be said as regards Scarlet Fever.

**DIPHTHERIA AND MEMBRANOUS CROUP.**

These diseases are caused by the same organism, and are now classified together under the head of Diphtheria. It should be understood that Membranous Croup is almost invariably Diphtheria affecting the larynx or wind-pipe.



	DIPHTHERIA & MEMBRANOUS CROUP.			
	Notified Cases.	Deaths.	Case Fatality per cent.	Attack Rate, or Cases per 1,000 of the Population.
1895	88	35	39.7	0.35
1896	142	38	26.7	0.56
1897	137	35	25.5	0.53
1898	119	26	21.8	0.45
1899	157	27	17.2	0.59
1900	182	32	17.5	0.67
1901	186	41	22.0	0.67
1902	209	29	13.4	0.73
1903	272	35	12.8	0.92
1904	447	63	14.1	1.47
1905	442	54	12.2	1.42
1906	447	53	11.8	1.39
1907	412	44	10.6	1.25
1908	526	60	11.4	1.57
1909	469	41	8.7	1.37
1910	358	31	8.6	1.05
1911	381	39	10.2	1.10
1912	373	35	9.3	1.05
1913	517	53	10.2	1.42
1914	613	63	10.2	1.67
1915	489	61	10.4	1.38

The considerable increase in this disease, which began in 1913, continued with only slight abatement during 1915. The number of deaths remains large.

The best prospect of seriously diminishing the number of cases lies in the free provision of means for bacterial diagnosis in order that the actively infectious cases may be adequately supervised. Preventive measures of this nature are in operation in a few parts of the County with much success, but they cannot be generally adopted until a County laboratory is available for all Medical Officers of Health and private practitioners in the County.

The case fatality is quite moderate, but might be further reduced by a wider use of Antitoxin at the earliest possible moment, even before an absolute diagnosis has been confirmed.

**ENTERIC FEVER.**

The following table gives the number of cases since 1895.

	ENTERIC FEVER, including "Continued."			
	Notified Cases.	Deaths.	Case Fatality per cent.	Attack Rate or Cases per 1,000 of the Population.
1895	300	44	14·6	1·21
1896	395	58	14·9	1·56
1897	277	41	14·8	1·07
1898	431	63	14·6	1·65
1899	343	46	13·4	1·29
1900	388	51	13·1	1·43
1901	257	34	13·2	0·93
1902	160	22	13·7	0·56
1903	187	31	16·5	0·63
1904	187	31	16·5	0·61
1905	206	36	17·4	0·66
1906	334	36	10·7	1·04
1907	215	29	13·4	0·65
1908	152	22	14·4	0·45
1909	116	20	14·2	0·34
1910	83	15	18·0	0·24
1911	186	23	12·3	0·53
1912	119	10	8·4	0·33
1913	68	11	16·1	0·18
1914	81	15	18·5	0·22
1915	40	9	22·5	0·11

The number of cases of Enteric Fever and the number of deaths for 1915 were by far the smallest on record. The reduction has been going on for several years but has been especially rapid during the last four.

The reduction of the number of cases from a maximum of 431 in 1898 (with about 100,000 smaller population) to 40 in 1915 is a sanitary achievement of which the County may well be proud, and should go far to justify expenditure upon sanitary and public health preventive work. During the same period the deaths have fallen from 63 to 9.

This steady and remarkable improvement cannot be attributed to the benefits of anti-enteric inoculation, which is hardly practised at all in civil life ; and during 1915 very



few soldiers had returned to civil work. It would be wise for nurses and sanitary inspectors, who are brought much into contact with Enteric Fever, to obtain protection by inoculation, which cannot be satisfactorily employed during exposure.

### PUERPERAL FEVER.

This term is retained because it is still used in the tables issued by the Local Government Board, and it is, also, the term employed in the Infectious Disease (Notification) Acts, and cannot be altered without an amending Act. The Local Government Board have directed that for the purposes of classification in the tables issued by them the term Puerperal Fever shall be held to include:—"Pyæmia, Septicæmia, Sæpræmia, Pelvic Peritonitis, Peri-Metritis and Endo-Metritis, occurring in the Puerperium."

The following table gives the number of *notified* cases and deaths during the past twenty years.

	PUERPERAL FEVER.		
	Cases.	Deaths.	Case Fatality per cent.
1895	24	11	45·8
1896	18	2	11·1
1897	21	9	42·8
1898	12	5	41·6
1899	28	14	50·0
1900	21	18	85·7
1901	23	18	78·2
1902	20	9	45·0
1903	16	9	56·2
1904	17	14	82·3
1905	20	6	30·0
1906	12	7	58·3
1907	21	8	38·0
1908	29	11	37·9
1909	16	10	62·5
1910	12	7	58·3
1911	14	8	57·2
1912	21	8	38·1
1913	9	6	66·6
1914	12	5	41·6
1915	19	4	21·1

These do not include the deaths from "other accidents and diseases of pregnancy and parturition," which in 1915 amounted to 32.

In the 44th Annual Report of the Local Government Board, 1914-15, in the supplement dealing with Maternal Mortality and Childbearing, it is stated :—

"In the International List of Causes of Death (Manual issued by the General Register Office, 1911, page 45), the contents of the generic term puerperal fever are set out as follows :—

### 137. PUERPERAL FEVER.

Milk fever.	Puerperal metro-salpingitis.
Post-abortion sepsis.	„ parametritis.
Post-partum pyæmia.	„ para-uterine abscess.
„ sepsis.	„ pelvic abscess.
„ septicæmia.	„ „ cellulitis.
Puerperal abscess of broad	„ „ peritonitis.
ligament.	„ perimetritis.
„ cellulitis.	„ peritonitis.
„ endometritis.	„ peri-uterine cellulitis.
„ erysipelas.	„ pyæmia.
„ fever.	„ pyrexia.
„ infection.	„ salpingitis.
„ inflammation of uterus	„ sapræmia.
„ lymphangitis.	„ sepsis.
„ metritis.	„ septicæmia.
„ metro-peritonitis.	

This title does not include : septicæmia (unqualified), except in connection with childbirth (20 B), puerperal scarlatina (7).

It will be noted that this list of conditions, any one of which comes within the meaning of the term puerperal fever, does not include puerperal phlegmasia alba dolens, puerperal phlebitis, and puerperal diseases of the breast, which are probably septic in origin.

*The chief object in view in including puerperal fever among notifiable diseases, was doubtless to secure the adoption of measures for the prevention of spread of infection from one lying-in patient to another ; and presumably it was intended to include under this term all infectious and febrile conditions special to the lying-in state, which are liable to spread from one lying-in patient to another.*

It is clear that if the wide definition adopted in the International List of Causes of Death is accepted, as it ought to be, nineteen notifications of Puerperal Fever represent only a small proportion of the cases occurring in the County during twelve months.



### **CEREBRO-SPINAL FEVER.**

This disease affects, by preference, children and young adults. Its spread is favoured by overcrowding, especially when associated with exposure to fatigue. There are all degrees of severity, from a fatal result in 24 hours, to cases so slight as to be impossible to detect without the aid of the microscope and bacteriological laboratory. Fortunately, the micro-organism causing the disease is readily recognised. The disease is apt to be more serious amongst troops who are closely aggregated together, than in the civil population. In this County there were eight civil cases, and the few military cases were kept thoroughly under control, and never assumed an epidemic character.

Laboratory facilities are needed for the control of "carriers," by whom the disease is spread.

### **ACUTE POLIOMYELITIS.**

This disease was very little in evidence during 1915. It attracts very little public interest, except when it is confused with Cerebro-spinal Fever, from which it is, in reality, quite distinct, being caused by a different poison. It mainly affects young children.

The recent widespread epidemic in New York extending to many thousand cases, shows that on occasion this disease may assume serious proportions, associated with a very heavy death-rate, and with permanent paralysis in varying degrees in most of the survivors.

### **BUBONIC PLAGUE.**

There were no cases of this disease in England during 1915, but the appearance of several cases of Plague at three large ports during 1916 should serve to cause a careful watch upon rats, since bubonic plague in human beings is always associated with the same disease in rats, and the discovery of the disease in rats is sufficient ground for taking active precautions.

### **ANTHRAX.**

This highly infectious disease chiefly affects the lower animals, especially cattle. It is thus dealt with by the Police and the Diseases of Animals Committee. But Anthrax also affects man, in whom it is an exceedingly dangerous and fatal disease. It is most frequently met with in men who

handle foreign wool and hides and is then known as wool-sorters' disease. It can also be caught directly from affected cattle or other animals, and the milk of affected cows is dangerous and must not be used.

In 1916 the disease was spread with fatal results by a consignment of shaving brushes made with diseased horse-hair. The infected brushes were quickly seized, and no cases occurred in this County.

### GLANDERS AND FARCY.

This disease chiefly affects horses, but it readily spreads to human beings when brought into close contact with affected horses, and becomes a highly dangerous and fatal disease.

### MEASLES.

This disease, the seriousness of which is only gradually being realised, was made notifiable, in a modified degree, from January 1st, 1916. During 1915 we have only a record of the deaths, and they are more numerous than in any year since 1896. They largely exceed the total deaths from Enteric Fever, Small Pox, Scarlet Fever, Whooping Cough, and Diphtheria added together. Measles is one of the chief causes of the closure of the public elementary schools, which results in much interference with education. During 1915 no less than 47 schools were temporarily closed on account of the prevalence of Measles, exclusive of the schools in the Boroughs of Newark, Retford and Mansfield.

Year.	Deaths from Measles.	Year.	Deaths from Measles.
1895	35	1906	7
1896	230	1907	147
1897	47	1908	31
1898	62	1909	98
1899	142	1910	140
1900	67	1911	112
1901	105	1912	123
1902	77	1913	40
1903	42	1914	106
1904	50	1915	210
1905	177		



These figures by no means represent the whole of the evil wrought by Measles, or even the whole of the mortality, as many deaths are assigned to the lung diseases which complicate Measles so frequently as to be in reality a part of the disease. In numerous instances the damage to the lungs due to an attack of Measles lays the foundation for future tuberculosis, and in other instances latent tuberculosis is roused into activity by Measles ; in both sets of cases Measles plays an important part in fatal tuberculosis. Much ear disease and consequent deafness is also due to Measles.

The notification of Measles is of much interest to the County Medical Officer, and a source of gratification, inasmuch as he advocated notification so long ago as 1897 in a special report ; and afterwards in his Annual Report for the same year.

At that period the two chief objections were the expense, and the difficulty of dealing with cases after they had been notified. The former has been met by reducing the fee for notification, and by making only the first case in a house notifiable by the doctor ; and the second by beginning to employ Health Visitors to visit the patients' houses, and Nurses to nurse the most serious cases. In London, cases of Measles have been admitted in considerable numbers into the Hospitals for Infectious Diseases, with much benefit, and this practice is likely to be gradually followed in the rest of the country.

In this County it has been found practicable, with a view of diminishing the amount of School Closure, to make a beginning in visiting the homes of children kept away from school on account of Measles.

The frequency with which young recruits have been attacked by measles and German Measles has called public attention anew to the importance of these diseases. It is devoutly to be wished that the opportunity which now offers for diminishing the very heavy mortality from Measles will not be missed.

### **WHOOPIING COUGH.**

The following table shows the number of deaths from Whooping Cough. Eight schools were closed for Whooping Cough in the Education County.

Year.	Deaths from Whooping Cough.	Year.	Deaths from Whooping Cough.
1895	61	1906	61
1896	51	1907	86
1897	129	1908	76
1898	40	1909	75
1899	37	1910	67
1900	109	1911	98
1901	71	1912	40
1902	71	1913	47
1903	88	1914	85
1904	107	1915	73
1905	86		

Much the same may be said of Whooping Cough as of Measles, but it causes fewer deaths and leaves fewer permanent ill-effects. It is very little under control and has not been recently so troublesome in spreading among young adults, as Measles. Any attempt to deal with it in the home might advantageously await the experience gained with Measles.

### INFLUENZA.

During 1914 the number of deaths from this disease continued large, as will be seen in the accompanying table.

Year.	Fatal Cases of Influenza.
1900	152
1901	23
1902	47
1903	45
1904	44
1905	47
1906	31
1907	84
1908	69
1909	47
1910	38
1911	38
1912	35
1913	42
1914	55
1915	71



Although the prevalence of Influenza is favoured by cold and damp, and especially by rapid changes of temperature, it remains essentially an *infectious* disease ; but the knowledge of its infectious properties is very slightly acted upon in practice, and hardly any precautions are taken to prevent its spread. It is by no means unknown in the warmer seasons of the year.

### DIARRHOEA.

This disease is mainly of importance in connection with infant life, and in hot, dry seasons assumes the characteristics of a specific epidemic disease. The year 1915 was a favourable one.

Year.	Deaths from Diarrhoea.	Year.	Deaths from Diarrhoea.
1895	201	1906	223
1896	88	1907	119
1897	166	1908	128
1898	240	1909	76
1899	233	1910	98
1900	158	1911	396
1901	205	1912	75
1902	85	1913	173
1903	123	1914	178
1904	242	1915	125
1905	116		

### TUBERCULOSIS.

Since February 1st, 1913, all forms of Tuberculosis have been compulsorily notifiable, and detailed returns are sent to the County Medical Officer by the Medical Officer of Health of each Urban and Rural District. The results are shown in the accompanying table, which is drawn up in accordance with the requirements of the Local Government Board.

# **PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS 1912.**

Summary of Notifications during the period from 3rd January, 1915, to the 1st January, 1916.

Number of Notifications on Form A.														Number of Notifications on Form B.				Number of Notifications on Form C.	
Age Periods.	Primary Notifications.											Total Notifications (i.e., including cases previously notified by other doctors.)	Primary Notifications.			Total Notifications (i.e., including cases previously notified by other doctors).	Poor Law Institutions.	Sana- toria.	
													Un- der 5	5 to 10	10 to 15				To- tal.
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upw'ds								
Pulmonary :																			
Males ..	1	4	10	10	22	28	38	31	11	8	1	164	168	..	2	1	3	9	29
Females ..	..	8	8	10	25	34	30	25	12	7	..	159	161	..	1	2	3	11	24
Non-Pulmonary :																			
Males ..	4	13	8	10	4	6	2	4	1	..	..	52	52	..	..	1	1	2	1
Females ..	3	11	7	5	4	5	..	1	1	..	..	37	37	..	2	1	3	5	1

H. HANDFORD, M.D.,  
COUNTY MEDICAL OFFICER OF HEALTH.



These figures with the details of age and sex are taken from the copies of the notifications sent by the district Medical Officers to the County Medical Officer, but no copies have been received from West Bridgford. The totals are 40 less for the Pulmonary and 24 less for the Non-Pulmonary than the totals derived from the Annual Reports for the various Districts.

Taking the larger numbers, the notifications for Pulmonary tuberculosis in 1915 amounted to 375, compared with 460 in 1914; and for Non-Pulmonary to 117, compared with 145 in 1915.

The deaths from Pulmonary tuberculosis reached 261, or more than two-thirds of 375, giving 1.4 notifications for each death. It is evident that many cases are not notified.

In the case of Non-Pulmonary tuberculosis, 114 deaths compared with 117 notifications, show that notification of these forms of tuberculosis is not being seriously carried out.

The free examination of suspected sputum for any Medical Practitioner in the County was continued at the Sanatorium during 1915, and 168 specimens were examined and reports sent to the doctor.

The following table shows the number of *deaths* from Consumption (that is Pulmonary Tuberculosis) in this County for the past twenty-one years; and also the deaths from "Other Tuberculous Diseases," that is, tuberculosis of any other organ except the lungs, for the past sixteen years.

It will be noticed that the deaths from Consumption have been very slightly increasing for the past four years, but show no persistent alteration since 1899; whereas the deaths from other tuberculous diseases during the last eight years were very decidedly fewer than in the previous eight years.

Year	Deaths from Pulmonary Tuberculosis.	Deaths from other Tuberculous Diseases.
1895	287	..
1896	233	..
1897	308	..
1898	303	..
1899	266	..
1900	256	184
1901	238	153
1902	229	173
1903	262	150
1904	256	167
1905	281	140
1906	267	160
1907	281	143
1908	242	140
1909	245	120
1910	261	166
1911	233	186
1912	234	130
1913	237	110
1914	252	119
1915	261	114

It is of some value to give the proportion of deaths per 1,000 persons living from Consumption, from other tuberculous diseases, and from the two together, or from *all* tuberculous diseases. That has been done in the following three tables for the past sixteen years.

**Deaths from Pulmonary Phthisis per 1,000 of the Population.**

	Whole County.	Urban Districts.	Rural Districts.
1900	·93	·95	·90
1901	·86	·92	·77
1902	·80	·75	·86
1903	·88	·80	1·01
1904	·84	·79	·92
1905	·90	·93	·86
1906	·83	·84	·82
1907	·85	·83	·81
1908	·72	·72	·71
1909	·71	·72	·70
1910	·77	·83	·66
1911	·67	·73	·58
1912	·65	·68	·62
1913	·65	·64	·67
1914	·68	·70	·65
1915	·73	·68	·84



Deaths from **OTHER** Tuberculous Diseases (excluding Tuberculosis of the Lungs) per 1,000 of the Population.

	Whole County.	Urban Districts.	Rural Districts.
1900	·67	·76	·54
1901	·55	·64	·42
1902	·60	·65	·53
1903	·50	·53	·46
1904	·55	·59	·48
1905	·45	·48	·40
1906	·50	·51	·48
1907	·43	·46	·39
1908	·41	·47	·32
1909	·35	·36	·33
1910	·48	·59	·31
1911	·53	·61	·40
1912	·36	·40	·30
1913	·30	·39	·14
1914	·32	·39	·20
1915	·32	·32	·31

Deaths from **ALL** Tuberculous Diseases (including Tuberculosis of the Lungs) per 1,000 of the Population.

	Whole County.	Urban Districts.	Rural Districts.
1900	1·60	1·71	1·45
1901	1·41	1·57	1·20
1902	1·40	1·41	1·39
1903	1·39	1·34	1·48
1904	1·39	1·38	1·40
1905	1·35	1·41	1·27
1906	1·33	1·35	1·30
1907	1·29	1·35	1·20
1908	1·14	1·20	1·03
1909	1·07	1·09	1·04
1910	1·26	1·42	0·98
1911	1·21	1·34	0·98
1912	1·02	1·08	0·93
1913	0·95	1·03	0·82
1914	1·01	1·1	0·85
1915	1·06	1·01	1·15

From the figures given in the previous tables one is driven to the conclusion that no general beneficial influence has been exercised by the use of tuberculin, which until recently was much used. It has certainly not fulfilled the extravagant and unreasonable hopes which were at one time formed of it.

Whether in very carefully selected cases the prolonged employment of tuberculin may do some good, is still *sub judice*. There can be no doubt whatever that tuberculin in badly selected cases is capable of doing much harm, and the routine employment of it is unwise. As an aid to diagnosis in doubtful cases of *pulmonary* tuberculosis, tuberculin can not be recommended. The focal reaction in the lung, which alone shows that the lung is affected, may rouse into activity a quiescent lesion; and a general reaction does not distinguish the part of the body affected.

The three chief causes of the want of progress in the general results for the County as regards Pulmonary Tuberculosis, are :—

1. The failure to deal adequately with *advanced* cases. There is general agreement that it is mainly by the advanced cases that the disease is spread. It is the advanced cases that are actively and acutely infectious. They cannot be rendered non-infectious in the small rooms of poor homes; and without due consideration of the vital importance of prevention, little may be expected from humanitarian treatment alone, however indicative of kindness of heart.
2. The failure to deal adequately with tuberculosis in children, both pulmonary and non-pulmonary. It is in childhood that the disease is most curable, and that the results are most likely to be permanent. A separate children's block is greatly needed at the Sanatorium.

Much of the glandular tuberculosis in childhood is due to infection from cow's milk. Much more adequate steps are needed to prevent this.

3. The bad housing available for those who, being below the normal in physical fitness, are only able to earn low wages.

In the recent Chadwick Lectures at the Royal College of Physicians in London, in June last, Dr. Moon states : \* "An adequate system of housing, both for the country districts and the towns, might diminish phthisis at least 50 per cent., and would probably lessen the consumption of Alcohol, from which flow such unnumbered ills."

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\* *Lancet*, June 10th, 1916.



Two Tuberculosis Health Visitors have been fully employed during the whole of the year and their work has been most valuable ; indeed, there is ample scope for more Health Visitors.

In consequence of the absence of the County Medical Officer on military duty during the latter part of 1915 and for the first half of 1916, the report of the work of the Dispensaries and of the applications for Sanatorium benefit, has been drawn up by Dr. Wilbourne and is appended.

This year the Report of the Ransom Sanatorium has been published separately and was circulated to the County Council in June.

## ADMINISTRATION OF SANATORIUM BENEFITS DURING THE YEAR 1915.

*To the Members of the Sanatorium Benefit Sub-Committee.*

Ladies and Gentlemen,

I beg to offer a short resumé of the Tuberculosis Scheme as affecting insured patients during the year 1915. Owing to the alterations of staff, due to the War, the work has been with very great difficulty overcome, especially during the latter part of the year.

From the 1st of January to the 31st December, 1915, there were 146 new applications for Sanatorium Benefits, as compared with 180 in 1914, and 149 in 1913.

The numbers received in each month were as follows :—

January ..	14	May ..	12	September ..	10
February..	12	June ..	8	October ..	14
March ..	16	July ..	14	November ..	9
April ..	18	August ..	12	December ..	7
					Total
					146

These may be classified in two ways :—

- (1) 97 males and 49 females.
- (2) 141 cases of Phthisis (Pulmonary Tuberculosis)  
5 other forms of Tuberculosis (Non-Pulmonary).

Every case, with one exception, was examined by myself and was recommended Domiciliary treatment.

As the Scheme for Sanatorium Benefit does not at present apply to other than Pulmonary Tuberculosis as regards Institutional treatment, the five cases of Non-Pulmonary Tuberculosis can be discarded.

Of the 141 cases of Pulmonary Tuberculosis, 67 have been admitted into the Ransom Sanatorium, and their condition on discharge has been classified as follows :—

Disease	Arrested.	Much Improved.	Improved.	Stationary.	Worse.
	38	18	6	3	2
Total .. 67					

On the 31st December, 1915, of the above total 67 patients, 50 were following their employment, 15 were not working, and 2 were dead.

On the 1st January, 1915, 10 insured patients were waiting admission to the Sanatorium, and on the 1st January, 1916, two patients were waiting admission. The number of patients on these two dates, who were receiving treatment at the Sanatorium was the same, viz., 28 patients.

The total number of insured patients treated at the Ransom Sanatorium during the year and discharged was 87 ; 67 of whom applied for Sanatorium treatment during the year 1915 ; 10 who were awaiting treatment at the beginning of the year ; and 10 who had applied previously for Sanatorium benefit, 7 being patients who had made considerable progress under Domiciliary treatment, and it was now thought advisable to follow this up by recommending Institutional treatment ; and 3 who had previously been inmates of the Sanatorium but had suffered a relapse, and a second period at the Sanatorium was recommended as being a satisfactory method of recruiting their health to a point where they would be able to again follow their employment.

The open-air wards of the various parochial authorities were kind enough to take in several cases, those at Mansfield taking 5, Newark 1, Basford 1, whilst the Castle Houses of the General Hospital, Nottingham, had 5 cases for some considerable time. The friendly co-operation of these institutions merits the greatest praise, and is of the utmost value to advanced cases.

Six patients left the County, four of whom communicated their addresses, and the Tuberculosis Officer in charge of their new abode was notified. Two left without any address and have not been traced.



Two patients after their period of stay at the Sanatorium were enabled to spend a period at the Scarborough Convalescent Home, and two patients refused to benefit by Sanatorium treatment.

Three patients were advised operation for other complaints than Tuberculosis; one patient refused treatment at Ransom Sanatorium and went to a Sanatorium on the South coast at his own expense; and one patient enlisted within a month of applying for Sanatorium Benefit.

### INSTITUTIONAL TREATMENT OF SOLDIERS DISCHARGED FROM THE ARMY, SUFFERING FROM TUBERCULOSIS.

During the year permission was asked for, and obtained, from the Commissioners to send six patients to other than the Ransom Sanatorium, at a cost of not exceeding £3 3s. 0d. per week.

Four cases of discharged soldiers under this heading have been sent to Bourne Castle Sanatorium, Belbroughton, Stourbridge, two soldiers being discharged with their condition stationary, and two with disease arrested.

In addition, five cases of discharged soldiers were admitted to the Ransom Sanatorium after applying for Sanatorium Benefit in the usual way. All were discharged with disease arrested, thus making a total of nine Tuberculous Soldiers who have received Institutional treatment.

**Table showing the Sanitary Districts of Persons applying for Sanatorium Benefit.**

URBAN DISTRICTS.				RURAL DISTRICTS.			
Mansfield	..	..	32	Basford	..	..	18
Newark	..	..	7	Bingham	..	..	4
Retford	..	..	6	Blyth and Cuckney	..	..	1
Arnold	..	..	5	Leake	..	..	2
Beeston	..	..	12	Misterton	..	..	1
Carlton	..	..	10	Newark	..	..	—
Eastwood	..	..	2	Skegby	..	..	6
Hucknall Torkard..	..	..	7	Southwell	..	..	5
Huthwaite	..	..	2	Stapleford	..	..	1
Kirkby-in-Ashfield..	..	..	6				
Mansfield Woodhouse	..	..	3	Total, Rural Districts	..	..	38
Sutton-in-Ashfield	..	..	6				
Warsop	..	..	2	Whole County	..	..	146
West Bridgford	..	..	7				
Worksop	..	..	1				
<hr/> Total Urban Districts 108							

Twenty-nine patients who did not receive Institutional treatment died during the year, which, together with two who died and had received Institutional treatment, brought up the number of deaths to 31. In one case the patient died on the morning of the application being received by the Tuberculosis Officer. Thus, in over 20 per cent. of the cases applying for Sanatorium Benefit, the patient died within twelve months.

It seems unfortunate that patients do not come under observation with the disease in its early stages, whereby a great endeavour could be made to stay this heavy death roll within twelve months of their applying for Sanatorium Benefit, and in many cases even within the same time of being notified. Tuberculosis is a chronic disease in the vast majority of cases, and the proportion who apply for Sanatorium Benefit, and are found to be early cases, are comparatively few, whereas those with advanced disease, and where it is difficult to hope that any permanent good will result, are in too great a proportion.

In addition there were 15 deaths amongst the 79 patients who were receiving Domiciliary treatment from 1913, and 32 deaths amongst the 165 patients who were receiving Domiciliary treatment from 1914.

Thus the total number receiving Domiciliary treatment, including those in the Sanatorium, at the end of the year numbered 314.

#### *Unhealthy Dwellings, etc.*

During the year a statement of the unsatisfactory conditions under which some Tubercular cases were existing, was sent to the local Medical Officer of Health, and in some cases an improvement was effected, but in the majority little was done.

The deplorable housing conditions, especially in some of the Rural areas, in the County are very closely associated with troubles of tuberculosis, and the Housing Acts up to the present time have only succeeded in touching the fringe of this field. The housing question is one of the vital points in dealing with the problem of Tuberculosis, and previously, in my opinion, we hear far too much discussion about the results of Sanatoria, and far too little about these unsanitary



houses, and an immense amount of good could be accomplished by attacking the disease in these areas.

### *Disinfection of Rooms and Bedding.*

During the latter half of the year a systematic effort has been made to deal adequately with the disinfection of rooms, bedding, etc., after the removal of a patient to the Sanatorium, change of abode, and in cases of death.

I have received every courtesy from the Local Medical Officers of Health and their Sanitary Inspectors, who have carried out any suggestions to the best of their ability, and in many cases at great inconvenience to themselves.

### *Extra Nourishment.*

During the year 1915, a grant of extra nourishment of milk and eggs was made by the Insurance Committee to insured persons, costing in the aggregate, £387 18s. 5d.

### *Shelters.*

The Insurance Committee possess eleven shelters, which have been lent out to suitable insured patients, and I am glad to report that the benefits derived from their use have been encouraging, and there is, I think, evidence that the shelters are more appreciated than formerly, but a few examples of misuse and neglect still occur. The best results, however, are to be expected when they are occupied by patients who have had some training in a Sanatorium.

### *Attendance at Dispensaries of Insured Patients.*

The year 1915 is the first complete year since the initiation of this work, and yet it cannot be reviewed as other than incomplete owing to the disorganisation of the staff as the result of the War. The position of affairs is that three Dispensaries have become fairly well established. The work in connection with them is running smoothly and seems capable of increase.

	1914	1915		
		Insured.	Uninsured.	Total.
Mansfield Dispensary .. .. (opened June 11th)	70	219	226	445
Newark Dispensary .. .. (opened September 5th)	10	30	45	75
Nottingham Dispensary .. .. (opened July 1st)	53	195	97	292
Total ..	133	444	368	812

### E. WARDMAN WILBOURNE,

*Tuberculosis Officer and Assistant County  
Medical Officer of Health.*

### WATER SUPPLY.

Little was done to improve or extend the water supply of the County during the first half of 1914, and since the outbreak of the Great War all works of that kind are in abeyance.

In the early part of 1914 much apprehension was expressed as to the danger of the contamination of the Clipstone Well, belonging to the Borough of Mansfield, by the disposal of the sewage from the Clipstone Military Camp.

The water from the Clipstone Well is being carefully watched and periodically analysed both chemically and bacteriologically, and no evidence is forthcoming that it has in any way deteriorated.

### RIVER POLLUTION, SEWERAGE & SEWAGE DISPOSAL.

This subject has been very much in abeyance since the commencement of the war, as it is almost impossible to borrow money either for new works, or for the extensive repair of old ones.

Most of the disposal works have been visited during the year and many of them have been kept up remarkably well when due allowance is made for the difficulties of the time. It is not a wise economy to allow sewage disposal works, upon which, in many instances, thousands of pounds have been spent, to fall seriously out of repair. Deterioration soon progresses very rapidly and a heavy liability is incurred.



The arrangement for the analysis of sewage effluents which had subsisted for several years with Mr. Trotman, the City Analyst, was terminated during 1915 on account of difficulties arising out of the War. There is at present no means of analysing any samples where it may be considered desirable. Some provision needs to be made after the War and could readily be combined with a bacteriological laboratory.

### **REFUSE DESTRUCTION AND SCAVENGING.**

There are now refuse destructors at Mansfield, West Bridgford, Beeston, and Kirkby-in-Ashfield. There are several other populous districts in the County where destructors are greatly needed.

The existence of many large Military Camps during the past two years has shown most clearly, to those who are willing to learn, the ease with which all kinds of refuse may be destroyed by fire without any elaborate apparatus. The simplest means suffice to destroy quickly and thoroughly rubbish which, when allowed to accumulate, forms the chief breeding place for flies, which again are the chief carriers of so many diseases.

Very much more might be done both by householders and by District Councils, Rural as well as Urban, in using this method of preventing the spread of disease.

Much advantage would also accrue to the public health from the more general use of covered, moveable, dry ash-bins, instead of the pernicious ill-smelling ash-pits. Ash-bins require a proper system of scavenging, which is one of the best investments any community, even a small village, can make.

### **MILK SUPPLY.**

For many years the activities of too many District Councils as regards their powers in connection with the Milk supply, have been in abeyance, pending the passing of the Milk and Dairies Act, which was put on the Statute Book in 1914, and was to have come into operation upon October 1st, 1915. A considerable portion, though by no means the whole, of the Act was concerned with the prevention of the sale of tuberculous milk, or milk from tuberculous cows. This was a difficult and contentious matter to carry out during a great



war, and in July, 1915, an amending Act was passed postponing the operation of the principal Act until a year after the end of the war.

It will be doubly unfortunate if the non-contentious questions relating to the cleanliness of milk and its protection from outside sources of contamination and infection are also indefinitely postponed. In the meantime, very little is being done and the Public Health Committee of the County Council at present possess no powers.

Quite apart from the infection of children with Bovine Tuberculosis affecting the glands, which is mainly derived from cows' milk, much disease in babies and children is due to the mere dirtiness of milk. These dangers can only be imperfectly avoided by *boiling* the milk, against which there is much prejudice. Any reasonable regulations, therefore, which would ensure the distribution of cleaner milk, would be a great boon to the babies and children. Especially during the warm weather of Summer and Autumn, the dangers to infants, which are so real, may be overcome by employing one of the preparations of dried milk instead of fresh milk. Dried milk is clean, free from the bacterial contamination of fresh milk, and forms a perfectly wholesome and sufficient food for infants, at least up to 9 or 10 months. The use of dried milk on a very large scale at so many Infant Welfare Centres for several years, has placed the suitability of it for babies beyond question. The risk of infantile scurvy, or Barlow's disease, is extremely small, and can be entirely prevented by simple precautions.

It is not unlikely that the question of clean milk, free from bacteria and from disease germs, may receive more sympathetic consideration since Artificial or "Synthetic" milk is being used on a commercial scale under the name of Solac. Although of vegetable origin, it bears a remarkably close resemblance to cows' milk, but its nutritive value has yet to be more fully tested.

It is even more important to know whether it will be suitable for infant feeding.

It has been suggested that "Synthetic Milk" may take a place in relation to cows' milk, similar to that long occupied by margarine in relation to butter.

The following extract from the daily press shows that the subject of Clean Milk is of public interest even during the War.



## CLEAN MILK.

“ Efforts are being made by the National Clean Milk Society, supported by the Society of Medical Officers of Health, the Sanitary Inspectors’ Association, and others interested in promoting public health, to procure the early working of the Milk and Dairies (Consolidation) Act, 1915. This Act enables the Local Government Board to issue Milk and Dairies Orders for various purposes, such as the registration of dairymen and dairies, the inspection of cattle in dairies and of persons concerned in handling the milk, securing the cleanliness of milk stores, shops, and vessels, the prevention of the sale of contaminated or infected milk, and for many other similar objects. The Act was passed in July, 1915, but it was thought necessary to postpone its operation until a date ‘not later than one year after the termination of the war,’ which the Local Government Board may by order appoint. It is a reasonable conclusion that as the Act was passed by the mutual consent of all sections of the House of Commons, the improvements it provides for are not of a very disputable nature, and there seems no reason why the Local Government Board should prolong the suspension of a useful measure. A series of resolutions on the subject, passed by a conference held this summer, has been forwarded to Mr. Walter Long, calling his attention to the matter, and it is hoped that the President of the Board will soon see his way to take action.”

## HOUSING.

### HOUSING AND TOWN PLANNING ACT, 1909.

No communication was made to the County Council or to the County Medical Officer during the year 1915, under the Housing of the Working Classes Acts, 1890 to 1909.

The following table shows most clearly that the Housing and Town Planning Act, 1909, was by no means in abeyance during 1915 in the greater part of the County ; and that in some districts even more useful work was done than before the War. In other districts less was attempted than could have been accomplished. During the latter part of 1915 the difficulties in carrying on this work increased, and the present year has brought it almost to a standstill.

HOUSING AND TOWN PLANNING ACT, 1909.  
TABLE SHOWING INSPECTIONS MADE AND WORK CARRIED  
OUT DURING THE YEAR 1915.

DISTRICT.	Number of Dwelling houses inspected under and for the purposes of Section 17.	Number found to be unfit for human habitation.	Number of Representations made to Local Authorities with a view to making Closing Orders.	Number of Closing Orders made.	Number of Dwelling houses the defects in which were remedied without making Closing Orders.	Number of Dwelling houses which after the making of Closing Orders were made fit.	Number of Dwelling houses closed.	Number of Dwelling houses demolished voluntarily after Closing Order made.
<b>URBAN.</b>								
Mansfield .. ..	511	—	2	2	182	—	—	—
Newark .. ..	273	212	4	4	90	—	2	—
Retford .. ..	17	—	—	—	—	—	—	—
Arnold .. ..	50	—	—	2	—	—	—	—
Beeston .. ..	34	10	10	—	24	—	—	—
Carlton .. ..	55	3	3	2	52	2	—	—
Eastwood .. ..	—	—	—	—	—	—	—	—
Hucknall .. ..	205	7	7	4	61	2	1	6
Huthwaite .. ..	109	2	48	—	—	—	—	—
Kirkby-in-Ashfield.. ..	165	25	25	—	—	25	—	—
Mansfield Woodhouse ..	169	—	—	—	97	4	—	—
Sutton-in-Ashfield.. ..	59	11	6	6	24	—	—	—
Warsop .. ..	13	—	—	—	4	—	—	—
West Bridgford	—	—	—	—	—	—	—	—
Worksop .. ..	55	2	—	—	49	—	—	—
Total Urban Districts ..	1715	272	105	20	583	33	3	6
<b>RURAL.</b>								
Basford .. ..	157	26	—	—	105	—	—	—
Bingham .. ..	—	—	—	—	—	—	—	—
Blyth and Cuckney ..	293	—	—	—	—	—	—	—
E. Retford .. ..	188	1	1	—	120	—	1	—
Leake .. ..	—	—	—	—	—	—	—	—
Misterton .. ..	—	—	—	—	—	—	—	—
Newark .. ..	85	20	3	3	19	—	3	—
Skegby .. ..	21	—	—	—	—	—	—	—
Southwell .. ..	722	12	4	1	40	—	—	12
Stapleford.. ..	85	—	—	—	—	—	—	—
Shardlow .. ..	—	—	—	—	—	—	—	—
Total Rural Districts ..	1551	59	8	4	284	—	4	12
WHOLE COUNTY.. ..	3266	331	113	24	867	33	7	18



The demand for houses continues, scarcely any new ones are being built, consequently it is most difficult to close even the most unwholesome houses.

The work is of the utmost value and it is greatly to be desired that it should be speedily resumed after the War.

## **THE INSPECTION OF FOOD AND THE SALE OF FOOD AND DRUGS ACTS, 1875 TO 1907.**

These matters, including the inspection of Slaughter-houses, are so closely allied that it is difficult to separate them. That the food consumed should be in a wholesome condition is of vital importance to the public health. Not only is it necessary that food should be wholesome when bought, but it is also necessary that suitable places for keeping food should be available in each cottage, so that food which was sound when bought, may not become dangerous to health before it is consumed. Many Medical Officers of Health call attention to this great need in so many houses which have no suitable provision for keeping food at all.

The inspection of food offered for sale is partly carried out under the Public Health Acts by the Medical Officers of Health and the Sanitary Inspectors, and partly under the Sale of Food and Drugs Acts.

The County Medical Officer has nothing to do with the administration of the Sale of Food and Drugs Acts in this County. The Acts are carried out by a separate Officer and Staff and a separate Committee of the County Council.

The inspection of food under the Public Health Acts is carried out by the District Councils.

The Regulations under the Public Health (Regulations as to Food) Act, 1907, as regards Cream are carried out under the supervision of the Food and Drugs, Weights and Measures, and Explosives Acts Committee, and the County Medical Officer of Health has no duties.

## SMOKE PREVENTION.

The prevention of the pollution of the air by smoke is one of the duties imposed upon Sanitary Authorities by Sections 91 (Sub-Sections 7 and 8), 92 and 102 of the Public Health Act, 1875.

Rural District Councils have the same powers and the same duties as Urban Councils as regards Smoke prevention.

Many Collieries and some Factories are situated in Rural Districts, and there is no valid reason *even of an economic kind* to excuse the present pollution of the air by black smoke. The economy consists in smoke prevention by more careful stoking and more complete combustion of the fuel. Smoke is waste as well as a nuisance.

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The following seven Urban Districts and two Rural Districts have not used the estimated populations advised by the Registrar-General in calculating the Birth- and Death-rates, but have formed much larger local estimates. This prevents their inclusion in Table I. until the rates have been re-calculated from the populations supplied by the Registrar-General. As the result of using the Registrar-General's figures shows both a higher birth-rate and a higher death-rate in each instance, it is fair to give the locally calculated rates as well.

URBAN DISTRICTS.					Nett	
		Estimated Population.		Birth-rate.		Death-rate.
Newark	..	17,000	..	20·6	..	15·4
Arnold	..	12,006	..	25·4	..	13·9
Carlton	..	17,795	..	21·8	..	11·8
Eastwood	..	5,200	..	26·9	..	15·5
Kirkby	..	17,160	..	27·0	..	16·0
West Bridgford	..	13,892	..	12·8	..	9·3
Worksop	..	22,007	..	31·3	..	12·8

RURAL DISTRICTS.						
Misterton	..	4,020	..	25·8	..	14·4
Southwell	..	19,770	..	18·5	..	15·3



**Table I. NOTTINGHAMSHIRE. Vital Statistics for the Year 1915.**  
**BOROUGHES AND URBAN DISTRICTS.**

BOROUGHES AND URBAN DISTRICTS.	Area in Acres Exclusive of area covered by water.	Persons per Acres.	Families or separate Occupiers at Census, 1911.	Persons per Family at Census, 1911.	Population, Census 1911.	Population, Estimated to the middle of 1915.	Births.		Deaths under 1 year of age.		Total Deaths Registered at all Ages.		** Nett Deaths at all Ages belonging to the Districts.	*** Nett Death Rate, i.e., Death Rate corrected for "Transferable" Deaths.	Average Nett Death Rate for the ten years 1906-1914.	Death Rate from all Tuberculous Diseases per 1,000 of population.	Death Rate from seven principal Zymotic Diseases per 1,000 of population.
							Number.	* Rate.	Number.	Rate per 1,000 Births Registered.	Number.	* Death Rate.					
MANSFIELD (Borough) .. ..	7,208	5.1	7,561	4.8	36,888	41,415	1,184	28.6	139	117	653	15.8	580	14.0	13.3	1.15	1.90
NEWARK (Borough) .. ..	1,899	8.6	3,866	4.2	16,408	15,759	350	22.2	45	128	271	17.2	263	16.7	14.5	0.76	1.40
EAST RETFORD (Borough) .. ..	4,498	2.9	3,076	4.3	13,385	12,545	279	22.2	21	75	208	16.6	197	15.7	13.5	0.72	0.32
ARNOLD .. ..	4,612	2.4	2,463	4.5	11,146	11,388	306	26.8	44	143	159	13.9	168	14.8	13.5	1.59	2.30
BEESTON .. ..	1,586	7.1	2,662	4.2	11,336	11,324	256	22.6	19	74	122	10.7	140	12.3	11.4	1.32	0.79
CARLTON .. ..	1,400	11.1	3,370	4.3	15,581	16,992	389	23.0	40	102	182	10.7	211	12.4	10.9	1.24	0.82
EASTWOOD .. ..	940	4.9	1,016	4.6	4,692	4,831	140	28.9	23	165	72	14.9	79	16.3	13.8	1.03	2.07
HUCKNALL .. ..	3,270	4.8	3,485	4.5	15,870	15,497	420	27.1	48	114	198	12.7	218	14.1	13.6	0.58	1.94
HUTHWAITE .. ..	1,199	4.3	1,071	4.8	5,231	5,453	143	26.2	11	76	56	10.3	60	11.0	13.6	1.10	1.28
KIRKBY-IN-ASHFIELD ..	5,814	2.6	3,198	4.8	15,378	16,322	465	28.5	80	172	260	15.9	275	16.8	11.5	0.92	2.33
MANSFIELD WOODHOUSE	4,834	2.2	2,107	5.2	11,015	12,571	409	32.5	59	144	150	11.9	166	13.2	13.9	0.88	2.16
SUTTON-IN-ASHFIELD ..	4,855	4.4	4,437	4.8	21,708	23,487	656	27.9	121	184	331	14.1	372	15.8	13.7	0.85	2.99
WARSOP .. ..	5,728	0.7	861	4.9	4,221	5,261	201	38.1	19	94	63	11.9	67	12.7	13.6	1.52	1.33
WEST BRIDGFORD .. ..	1,123	10.3	2,827	4.1	11,632	13,119	178	13.5	11	61	112	8.5	129	9.8	7.7	0.91	0.30
WORKSOP .. ..	17,930	1.1	4,397	4.6	20,387	20,692	611	29.5	69	112	316	15.2	303	14.6	13.9	0.97	0.92
Totals for Urban Districts	66,896	3.2	46,597	4.6	214,878	226,656	5,987	26.4	749	125	3,153	13.9	3,228	14.2	12.9	1.01	1.61

\* Rates calculated per 1,000 of the estimated population.

\*\* The Nett Deaths are arrived at by taking the whole of the Deaths registered during the year in the District, adding the Deaths of residents registered beyond the District, and subtracting the Deaths of non-residents registered within the District; the question of what constitutes "residence" is decided by the Registrar-General according to well-defined rules.





Table II. NOTTINGHAMSHIRE. Vital Statistics for the Year 1915.  
RURAL DISTRICTS.

RURAL DISTRICTS.	Area in Acres, exclusive of area covered by water.	Persons per Acre.	Families or Separate Occupiers at Census 1911.	Persons per Family at Census 1911.	Population, Census 1911.	Population estimated to the middle of 1915.	Births.		Deaths under one year of age.		Total Deaths registered at all ages.		* Nett Deaths at all ages belonging to the District *	Nett Death Rate, i.e., Death Rate corrected for Transferable Deaths.	Average Nett Death Rate for the ten years 1905-1914.	Death Rate from all Tuberculous Diseases, per 1000 of population.	Death Rate from Seven principal Zymotic Diseases per 1000 of population
							Number.	Rate. *	Number.	Rate per 1000 Births registered.	Number.	Death Rate. *					
BASFORD .. ..	61,868	·67	9,260	4·5	41,961	41,674	1,022	24·5	106	103	538	12·9	597	14·3	12·7	1·27	0·93
BINGHAM .. ..	66,574	·21	3,438	4·2	14,593	13,616	236	17·3	14	59	272	19·9	197	14·4	13·0	1·91	0·44
BLYTH AND CUCKNEY	28,208	·17	1,102	4·5	4,956	4,667	93	19·9	4	43	51	10·9	62	13·2	13·5	0·21	0·21
EAST RETFORD .. ..	92,740	·15	3,444	4·2	14,774	13,948	317	22·7	26	82	182	13·0	205	14·6	13·5	1·01	0·43
LEAKE .. ..	17,073	·21	902	4·1	3,720	3,546	61	17·2	5	81	51	14·3	55	15·5	13·2	1·69	0·84
MISTERTON .. ..	14,268	·28	962	4·1	4,015	3,966	104	26·2	9	86	63	15·9	60	15·1	14·0	1·01	0·75
NEWARK .. ..	36,619	·22	2,014	4·1	8,335	7,950	163	20·5	13	79	104	13·0	102	12·8	12·6	1·13	0·50
SKEGBY .. ..	11,956	·57	1,427	4·8	6,990	7,764	243	31·2	31	127	133	17·1	138	17·2	12·5	1·28	7·08
SOUTHWELL .. ..	117,638	·16	4,778	4·09	19,573	19,215	366	19·1	20	54	287	14·9	302	15·7	14·5	0·93	0·36
STAPLEFORD .. ..	4,860	2·08	2,232	4·5	10,007	9,798	243	24·8	22	90	106	10·8	119	12·1	12·7	0·51	0·51
Notts. Parishes administered by SHARDLOW .. ..	2,360	·16	80	4·9	392	393	8	20·3	..	..	3	7·6	3	7·6	8·8	..	..
Totals for Rural Districts ..	454,164	·28	29,639	4·35	129,316	126,537	2,856	22·5	250	87	1,790	14·2	1,840	14·5	13·2	1·15	1·00

\* Rates calculated per 1,000 of the Estimated Population.

\*\* The Nett Deaths are arrived at by taking the whole of the Deaths registered during the year within the District, adding the Deaths of residents registered beyond the District, and subtracting the Deaths of non-residents registered within the District; the question of "residence" or "non-residence" is decided according to rules laid down by the Registrar-General.

NOTTINGHAM MUSEUM





Table III. NOTTINGHAMSHIRE. Cases of Infectious Disease notified during the Year 1915.  
BOROUGH AND URBAN DISTRICTS.

BOROUGH AND URBAN DISTRICTS.	Small Pox.	Diphtheria (including Membranous Croup).	Erysipelas.	Scarlet Fever.	Enteric Fever.	Puerperal Fever.	Cerebro-Spinal Fever.	Polio-myelitis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.	TOTAL.	Whether there is any Isolation Hospital for Infectious Diseases?	Total available Beds.	Number of Diseases that can be concurrently treated.	Total Cases removed to Isolation Hospital.
MANSFIELD (Borough)	..	87	44	148	5	8	..	3	10	80	35	420	Yes	{ 18 17	Small Pox. Scarlet Fever	68
NEWARK (Borough)	..	138	8	31	1	..	1	..	2	15	4	200	Yes	20	Diphtheria. Scarlet Fever Small Pox.	151
EAST RETFORD (Borough)	..	6	15	32	..	1	1	..	..	22	4	81	Yes	{ 12 8	Scarlet Fever Small Pox.	21
ARNOLD	..	8	2	24	1	1	..	..	..	7	1	44	* +	..	..	3
BEESTON	..	2	7	47	1	..	..	..	2	18	2	79	*	..	..	0
CARLTON	..	12	22	106	1	1	3	..	4	46	8	203	* +	..	..	1
EASTWOOD	..	5	..	13	1	..	..	..	..	1	..	20	+	..	..	0
HUCKNALL	..	8	7	48	..	..	..	..	3	16	1	83	+ Yes	30	Small Pox.	0
HUTHWAITE	..	8	6	37	..	1	..	..	..	5	10	67	Yes	12	Small Pox.	0
KIRKBY-IN-ASHFIELD	..	19	24	46	3	..	..	..	2	20	7	121	Yes	10	One	0
MANSFIELD WOODHOUSE	..	24	7	55	..	1	..	..	..	24	13	124	+	..	..	0
SUTTON-IN-ASHFIELD	..	13	12	41	12	..	..	..	3	8	6	95	Yes	10	Small Pox.	0
WARSOP	..	8	2	20	..	1	..	..	..	5	1	37	§	..	..	0
WEST BRIDGFORD	..	15	7	53	2	..	..	..	..	7	..	84	+	..	..	0
WORKSOP	..	15	6	76	..	..	..	..	..	9	2	108	* * * Yes	16	Small Pox.	64
TOTAL .. ..	..	368	169	777	27	14	5	3	26	283	94	1,766		153		308

+ There is an arrangement with the Mansfield Corporation to admit cases of Small Pox into their Isolation Hospitals.

\* These districts contribute to the Joint Small Pox Hospital at Hucknall.

+ These districts have an agreement with the Basford Rural District Council by which cases of Scarlet Fever and Diphtheria may be received into the Basford Sanatorium.

\* \* \* Cases of Scarlet Fever, Diphtheria, and Enteric Fever are sent to the Joint Hospital situated in the Blyth and Cuckney District.

§ Arrangements have been made with the North Derbyshire Hospital Board to receive cases of Infectious Disease.





Table IV. NOTTINGHAMSHIRE. Cases of Infectious Disease notified during the Year 1915.  
RURAL DISTRICTS.

RURAL DISTRICTS.	Small Pox.	Diphtheria (including Membranous Croup).	Erysipelas.	Scarlet Fever.	Enteric Fever.	Puerperal Fever.	Cerebro-Spinal Fever.	Polomyelitis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.	TOTAL.	Whether there is any Isolation Hospital for Infectious Diseases?	Total available Beds.	Number of Diseases that can be concurrently treated.	Total Cases removed to Isolation Hospital.
BASFORD	..	45	18	138	5	3	3	..	2	28	11	253	Yes	28	Enteric Fever Scarlet Fever Diphtheria	116
BINGHAM	..	21	8	32	3	..	..	2	1	3	1	71	†	..	..	7
BLYTH AND CUCKNEY	..	1	2	..	..	..	..	..	..	2	..	5	Yes	16	Scarlet Fever and Diphtheria or Enteric Small Pox is sent to Wrksp	3
EAST RETFORD	..	..	4	16	2	1	..	2	1	4	2	32	§	..	..	0
LEAKE	..	..	1	1	1	..	..	..	1	1	1	6	†	..	..	1
MISTERTON	..	1	1	14	..	..	..	..	..	3	3	22	Yes	11	Scarlet Fever Diphtheria and Small Pox	9
NEWARK	..	22	3	30	..	..	..	..	1	7	..	63	** No	..	..	0
SKEGBY	..	9	2	13	1	..	..	..	..	11	3	39	No	..	..	0
SOUTHWELL	..	16	7	40	..	1	..	..	1	23	2	90	Yes	12	Scarlet Fever or Diphtheria and Small Pox	31
STAPLEFORD	..	1	15	16	1	..	..	..	3	10	..	46	*	..	..	0
NOTTS. PARISHES administered by SHARDLOW	..	..	..	..	..	..	..	..	..	..	..	..	***	..	..	0
TOTALS .. .. .	..	116	61	300	13	5	3	4	10	92	23	627		67		167

† An arrangement has been made with the Basford Rural District Council to take cases of Scarlet Fever, Diphtheria, or Enteric Fever into their Isolation Hospital.

† There is an arrangement with the Borough of Loughborough whereby cases of Enteric Fever and Diphtheria may be sent to the Loughborough Isolation Hospital.

\* This district contributes to the joint Small Pox Hospital at Hucknall; and has also made arrangements with the Draycott Isolation Hospital, in Derbyshire.

\*\* The Newark Borough Isolation Hospital is situated in the Rural District, but is not available for patients from the Rural District.

\*\*\* An arrangement has been made with the Shardlow Joint Hospital at Draycott to take cases from this district.

§ There is a temporary arrangement with the Borough of Retford to admit a limited number of cases of Scarlet Fever into their Hospital.





Table V. NOTTINGHAMSHIRE. Vital Statistics for the Year 1915.  
WHOLE ADMINISTRATIVE COUNTY.

	Area in Acres.	Persons per Acre.	Families or Separate Occupiers at Census, 1911.	Persons per Family at Census, 1911.	Population, Census, 1911.	Population Estimated to the middle of 1915.	Births.		Deaths under 1 year.		Total Deaths registered at all Ages.		Nett Deaths corrected for "Transferable" Deaths.	* Net Death Rate. Corrected for "Transferable" Deaths.	* Average nett Death Rate for the ten years 1905-1914.	* Death Rate from all Tuberculous Diseases, 1915.	* Death Rate from seven principal Zymotic Diseases, 1915.
							Number.	Rate.	Number.	Rate per 1,000 Births.	Number.	Death Rate.					
URBAN DISTRICTS	66,896	3·2	46,597	4·6	214,878	226,656	5,987	26·4	749	125	3,153	13·9	3,228	14·2	12·9	1·01	1·61
RURAL DISTRICTS	454,164	·28	29,639	4·35	129,316	126,537	2,856	22·5	250	87	1,790	14·2	1,840	14·5	13·2	1·15	1·00
WHOLE ADMINISTRATIVE COUNTY.	521,060	·66	76,236	4·5	344,194	353,193	8,843	25·0	999	112	4,943	13·9	5,068	14·3	13·0	1·06	1·39

\* Rate calculated per 1,000 of the estimated Population.

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LONDON





Table VI. Causes of Death during the Year 1915. URBAN DISTRICTS.

DISTRICTS.	Enteric Fever.	Small Pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Phtisis (Pulmonary Tuberculosis).	Tuberculous Meningitis.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Rheumatic Fever.	Meningitis.	Organic Heart Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Diarrhoea and Enteritis.	Appendicitis & Typhlitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Puerperal Fever.	Other Accidents and Diseases of Pregnancy and Parturition.	Congenital Debility and Malformation, including Premature Births.	Violent Deaths, excluding Suicides.	Suicides.	Other Defined Diseases.	Diseases ill-defined or unknown.	All Causes.	
MANSFIELD ..	1	..	41	4	6	9	2	1	27	6	15	34	..	2	61	36	87	7	18	2	4	1	4	1	4	42	19	2	134	10	580	
NEWARK ..	1	..	..	1	2	14	15	1	5	4	3	8	..	3	33	32	24	3	4	2	2	..	3	..	1	9	6	..	64	23	263	
EAST RETFORD ..	..	..	..	1	..	..	2	..	8	1	..	14	1	1	19	21	24	3	3	2	4	..	8	..	..	11	5	..	42	27	197	
ARNOLD ..	..	..	..	4	..	14	..	1	..	13	4	1	13	1	1	9	21	13	1	8	..	2	..	8	..	..	19	2	..	32	1	168
BEESTON ..	1	..	..	1	5	..	1	..	11	..	4	16	..	1	12	20	13	1	2	1	5	..	2	..	..	7	1	3	26	7	140	
CARLTON ..	..	..	..	3	..	7	2	..	..	16	4	1	16	1	4	17	9	24	..	2	..	2	..	6	1	..	21	9	1	38	27	211
EASTWOOD ..	..	..	..	5	..	..	3	2	..	4	..	1	3	..	..	7	6	1	..	2	..	1	..	3	..	1	13	3	..	18	6	79
HUCKNALL ..	..	..	..	15	..	7	2	..	..	8	1	..	15	1	1	24	16	33	1	6	1	2	..	2	..	3	24	5	..	51	..	218
HUTHWAITE ..	..	..	..	1	..	1	1	1	..	3	..	3	4	..	1	8	10	3	..	4	..	..	..	..	..	..	3	2	..	15	..	60
KIRKBY-IN-ASHFIELD ..	..	..	..	19	1	3	8	1	1	13	..	2	7	1	4	15	32	34	1	7	..	1	..	6	..	1	43	18	2	40	15	275
MANSFIELD WOODHOUSE ..	1	..	10	..	..	1	1	..	10	1	..	4	1	..	9	11	21	1	15	1	2	2	4	..	..	17	9	2	44	1	166	
SUTTON-IN-ASHFIELD ..	1	..	42	2	4	3	..	1	11	4	5	10	..	6	31	34	49	3	18	2	2	..	7	..	3	38	15	3	57	19	372	
WARSOP ..	..	..	..	6	..	..	..	1	3	2	3	5	1	..	4	1	4	1	1	1	1	..	3	..	1	10	2	..	17	..	67	
WEST BRIDGFORD ..	..	..	..	1	1	..	4	1	12	..	..	16	..	2	13	7	2	3	2	..	3	..	2	..	1	6	1	1	14	37	129	
WORKSOP ..	..	..	..	3	..	8	1	3	1	11	2	7	14	2	5	27	29	51	2	7	2	4	..	7	..	2	28	13	1	71	2	303
TOTAL ..	5	..	149	11	58	44	33	7	155	29	45	179	9	31	289	285	383	27	99	14	35	3	65	2	17	291	110	15	663	175	3,228	





Table VII. Causes of Death during the Year 1915. RURAL DISTRICTS.

DISTRICTS.	Enteric Fever.	Small Pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Phthisis (Pulmonary Tuberculosis).	Tuberculous Meningitis.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Rheumatic Fever.	Meningitis.	Organic Heart Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Diarrhoea and Enteritis.	Appendicitis and Typhlitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Puerperal Fever.	Other Accidents and Diseases of Pregnancy and Parturition.	Congenital Debility and Malformation, including Premature Birth.	Violent Deaths, excluding Suicides.	Suicides.	Other Defined Diseases.	Diseases ill-defined or unknown.	All Causes.
BASFORD .. ..	3	..	14	1	7	8	11	1	34	8	11	42	2	4	49	50	53	11	6	4	4	..	11	..	8	57	16	4	174	4	597
BINGHAM .. ..	..	..	..	..	..	3	11	..	20	1	5	10	1	3	33	14	11	1	3	2	..	..	9	..	2	4	8	1	32	23	197
BLYTH AND CUCKNEY ..	..	..	..	..	..	..	1	..	..	..	1	7	..	..	10	6	3	1	1	..	..	..	1	..	1	2	..	..	28	..	62
EAST RETFORD ..	1	..	2	..	1	..	3	..	12	..	2	14	..	4	16	14	8	5	2	3	4	..	6	1	1	15	11	1	42	37	205
LEAKE .. ..	..	..	..	..	..	..	1	..	5	1	..	6	1	..	8	1	4	..	..	..	..	..	..	..	..	4	4	1	19	..	55
MISTERTON ..	..	..	..	2	..	..	..	..	3	..	1	5	..	..	10	9	4	..	1	..	..	1	..	..	..	8	3	1	12	..	60
NEWARK .. ..	..	..	..	..	1	1	1	1	5	1	3	1	..	..	9	13	10	..	2	1	1	..	1	..	..	4	2	..	45	..	102
SKEGBY .. ..	..	..	44	..	6	1	1	..	8	2	..	4	..	..	8	11	10	2	4	..	..	..	1	..	..	6	3	..	25	2	138
SOUTHWELL ..	..	..	1	..	..	3	7	..	15	1	2	26	..	1	29	20	20	4	3	..	4	..	5	1	2	6	10	1	72	69	302
STAPLEFORD ..	..	..	..	..	..	1	2	..	4	1	..	8	..	..	11	19	16	..	4	..	1	1	3	..	1	7	4	2	23	11	119
Notts. Parishes administered by SHARDLOW ..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	3
TOTAL .. ..	4	..	61	3	15	17	38	2	106	15	25	124	4	12	183	157	139	24	26	10	14	2	38	2	15	113	61	11	472	147	1,840





**Table VIII. NOTTINGHAMSHIRE. URBAN DISTRICTS.**  
**Causes of, and Ages at Death during the Year 1915.**

CAUSES OF DEATH.				Nett Deaths at the subjoined ages of " Residents " whether occurring within or without the District.								
				All Ages.	Under 1 year.	1 and under 2 yrs.	2 and under 5 yrs.	5 and under 15 yrs.	15 and under 25 yrs.	25 and under 45 yrs.	45 and under 65 yrs.	65 and up-wards
All causes	{	Certified .. ..	3161	730	277	195	134	118	307	586	814	
		Uncertified .. ..	67	19	1	3	2	2	10	9	21	
Enteric Fever .. .. .				5	..	..	..	..	1	3	1	..
Small Pox .. .. .				..	..	..	..	..	..	..	..	..
Measles .. .. .				149	24	62	55	8	..	..	..	..
Scarlet Fever .. .. .				11	1	4	3	3	..	..	..	..
Whooping Cough .. ..				58	24	18	13	3	..	..	..	..
Diphtheria and Croup ..				44	2	4	19	16	3	..	..	..
Influenza .. .. .				33	7	1	..	..	..	4	4	17
Erysipelas .. .. .				7	3	..	..	1	..	1	1	1
Phthisis (Pulmonary Tuberculosis) .. .. .				155	1	1	3	8	34	63	40	5
Tuberculous Meningitis ..				29	5	4	7	9	3	1	..	..
Other Tuberculous Diseases ..				45	10	3	9	7	6	8	2	..
Rheumatic Fever .. ..				9	..	..	..	2	3	2	2	..
Meningitis .. .. .				31	13	3	4	4	1	3	2	1
Organic Heart Disease ..				289	..	2	..	11	13	36	110	117
Cancer, malignant disease ..				179	..	2	1	2	3	22	86	63
Bronchitis .. .. .				285	59	27	12	..	3	4	44	136
Pneumonia (all forms) ..				383	118	88	35	17	8	27	51	39
Other diseases of Respiratory Organs .. .. .				27	3	..	5	1	..	5	2	11
Diarrhoea and Enteritis ..				99	65	19	6	2	..	1	1	5
Appendicitis and Typhlitis ..				14	..	..	1	4	4	1	4	..
Alcoholism .. .. .				3	..	..	..	..	..	..	2	1
Cirrhosis of Liver .. ..				35	..	..	..	..	1	3	26	5
Nephritis and Bright's Disease				65	2	4	2	3	1	7	27	19
Puerperal Fever .. .. .				2	..	..	..	..	..	2	..	..
Other accidents and diseases of Pregnancy & Parturition				17	1	..	..	..	..	16	..	..
Congenital Debility and Malformation, including Premature Birth .. ..				291	278	11	..	1	1	..	..	..
Violent Deaths, excluding Suicide .. .. .				110	6	6	4	15	15	27	27	10
Suicides .. .. .				15	..	..	..	..	3	4	8	..
Other Defined Diseases ..				663	97	14	17	18	16	65	130	306
Diseases ill-defined or unknown				175	30	5	2	1	1	12	25	99
All causes .. .. .				3228	749	278	198	136	120	317	595	835





Table IX. NOTTINGHAMSHIRE. RURAL DISTRICTS.  
Causes of, and Ages at Death during the Year 1915.

CAUSES OF DEATH.				Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.								
				All ages.	Under 1 year.	1 and under 2 yrs.	2 and under 5 yrs.	5 and under 15 yrs.	15 and under 25 yrs.	25 and under 45 yrs.	45 and under 65 yrs.	65 and up-wards
All causes	{	Certified .. ..	1787	231	72	78	74	83	208	319	722	
		Uncertified .. ..	53	19	3	..	1	..	3	5	22	
Enteric Fever .. ..				4	..	..	..	..	1	1	2	..
Small Pox .. ..				..	..	..	..	..	..	..	..	..
Measles .. ..				61	8	18	27	8	..	..	..	..
Scarlet Fever .. ..				3	..	1	..	2	..	..	..	..
Whooping Cough .. ..				15	8	2	5	..	..	..	..	..
Diphtheria and Croup.. ..				17	..	2	7	8	..	..	..	..
Influenza .. ..				38	..	..	2	2	..	2	10	22
Erysipelas .. ..				2	1	..	..	..	..	..	1	..
Phthisis (Pulmonary Tuberculosis) .. ..				106	..	..	..	4	26	45	23	8
Tuberculous Meningitis ..				15	2	2	4	1	5	..	1	..
Other Tuberculous Diseases ..				25	4	1	1	6	3	6	3	1
Rheumatic Fever .. ..				4	..	..	..	2	..	2	..	..
Meningitis .. ..				12	..	2	3	4	2	..	1	..
Organic Heart Disease ..				183	..	1	1	7	7	18	46	103
Cancer, malignant disease ..				124	..	..	..	..	1	19	52	52
Bronchitis .. ..				157	18	7	2	1	2	3	18	106
Pneumonia (all forms) ..				139	31	19	9	7	6	17	20	30
Other diseases of Respiratory Organs .. ..				24	..	2	2	3	1	..	8	8
Diarrhoea and Enteritis ..				26	17	2	..	1	..	1	1	4
Appendicitis and Typhlitis ..				10	..	..	..	1	2	6	1	..
Alcoholism .. ..				2	..	..	..	..	..	2	..	..
Cirrhosis of Liver .. ..				14	..	..	..	..	..	1	4	9
Nephritis and Bright's Disease				38	..	..	1	..	2	3	12	20
Puerperal Fever .. ..				2	..	..	..	..	..	2	..	..
Other accidents and diseases of Pregnancy & Parturition				15	..	..	1	..	2	12	..	..
Congenital Debility and Malformation, including Premature Birth .. ..				113	109	1	2	..	..	1	..	..
Violent Deaths, excluding Suicide .. ..				61	4	1	2	9	7	14	12	12
Suicides .. ..				11	..	..	..	..	1	5	2	3
Other Defined Diseases ..				472	36	10	8	9	14	44	97	254
Diseases ill-defined or unknown				147	12	4	1	..	1	7	10	112
All causes .. ..				1840	250	75	78	75	83	211	324	744





Table X. NOTTINGHAMSHIRE. WHOLE COUNTY.  
Causes of, and Ages at Death during the Year 1915.

CAUSES OF DEATH.			Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.								
			All Ages.	Under 1 year.	1 and under 2 yrs.	2 and under 5 yrs.	5 and under 15 yrs.	15 and under 25 yrs.	25 and under 45 yrs.	45 and under 65 yrs.	65 and up-wards
All causes	{ Certified .. ..	..	4948	961	349	270	208	201	518	905	1536
	{ Uncertified .. ..	..	120	38	4	6	3	2	10	14	43
Enteric Fever .. .. .			9	..	..	..	..	2	4	3	..
Small Pox .. .. .			..	..	..	..	..	..	..	..	..
Measles .. .. .			210	32	80	82	16	..	..	..	..
Scarlet Fever .. .. .			14	1	5	3	5	..	..	..	..
Whooping Cough .. .. .			73	32	20	18	3	..	..	..	..
Diphtheria and Croup.. .. .			61	2	6	26	24	3	..	..	..
Influenza .. .. .			71	7	1	2	2	..	6	14	39
Erysipelas .. .. .			9	4	..	..	1	..	1	2	1
Phthisis (Pulmonary Tuberculosis) .. .. .			261	1	1	3	12	60	108	63	13
Tuberculous Meningitis .. .. .			44	7	6	11	10	8	1	1	..
Other Tuberculous Diseases .. .. .			70	14	4	10	13	9	14	5	1
Rheumatic Fever .. .. .			13	..	..	..	4	3	4	2	..
Meningitis .. .. .			43	13	5	7	8	3	3	3	1
Organic Heart Disease .. .. .			472	..	3	1	18	20	54	156	220
Cancer, malignant disease .. .. .			303	..	2	1	2	4	41	138	115
Bronchitis .. .. .			442	77	34	14	1	5	7	62	242
Pneumonia (all forms) .. .. .			522	149	107	44	24	14	44	71	69
Other diseases of Respiratory Organs .. .. .			51	3	2	7	4	1	5	10	19
Diarrhoea and Enteritis .. .. .			125	82	21	6	3	..	2	2	9
Appendicitis and Typhlitis .. .. .			24	..	..	1	5	6	7	5	..
Alcoholism .. .. .			5	..	..	..	..	..	2	2	1
Cirrhosis of Liver .. .. .			49	..	..	..	..	1	4	30	14
Nephritis and Bright's Disease .. .. .			103	2	4	3	3	3	10	39	39
Puerperal Fever .. .. .			4	..	..	..	..	..	4	..	..
Other accidents and diseases of Pregnancy & Parturition .. .. .			32	1	..	1	..	2	28	..	..
Congenital Debility and Malformation, including Premature Birth .. .. .			404	387	12	2	1	1	1	..	..
Violent Deaths, excluding Suicide .. .. .			171	10	7	6	24	22	41	39	22
Suicides .. .. .			26	..	..	..	..	4	9	10	3
Other Defined Diseases .. .. .			1135	133	24	25	27	30	109	227	560
Diseases ill-defined or unknown .. .. .			322	42	9	3	1	2	19	35	211
All causes .. .. .			5068	999	353	276	211	203	528	919	1579





Table XI.

NOTTINGHAMSHIRE.

URBAN DISTRICTS.

**INFANT MORTALITY.**

1915.

Nett Deaths from stated causes at various Ages under 1 Year of Age.

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.
All causes	{	Certified .. ..	139	45	42	33	259	121	130	119	103	732		
		Uncertified .. ..	8	1	..	1	10	3	2	2	..	17		
Small-pox .. .. .					..	..	..	..	..	..	..	..	..	..
Chicken-pox .. .. .					..	..	..	..	..	..	1	..	1	1
Measles .. .. .					..	..	..	..	..	7	4	13	24	24
Scarlet Fever .. .. .					..	..	..	..	..	..	..	1	1	1
Whooping Cough .. .. .					..	..	..	..	..	6	3	2	13	24
Diphtheria and Croup .. .. .					..	..	..	..	..	..	..	2	2	2
{ Diarrhoea .. .. .					..	1	1	1	3	10	9	13	3	38
{ Enteritis .. .. .					..	..	2	..	2	4	7	8	5	26
{ Tuberculous Meningitis .. .. .					..	..	..	..	..	2	2	1	5	5
{ Abdominal Tuberculosis .. .. .					..	1	..	..	1	..	4	1	7	7
{ Other Tuberculous Diseases .. .. .					..	..	..	..	..	2	..	2	4	4
Atelectasis .. .. .					6	..	..	1	7	..	1	..	8	8
Injury at Birth .. .. .					3	..	..	..	3	..	..	..	3	3
Erysipelas .. .. .					..	..	1	..	1	1	1	..	3	3
Syphilis .. .. .					..	1	..	1	2	5	2	1	11	11
Rickets .. .. .					..	..	..	..	..	..	1	1	2	2
Meningitis ( <i>not Tuberculous</i> ) .. .. .					..	..	..	..	..	4	5	1	13	13
Convulsions .. .. .					10	7	2	3	22	10	13	19	3	67
Gastritis .. .. .					..	..	..	..	..	4	2	1	8	8
Laryngitis .. .. .					..	..	..	..	..	1	..	1	2	2
Bronchitis .. .. .					..	..	5	4	9	11	15	19	59	59
Pneumonia (all forms) .. .. .					2	1	1	1	5	14	31	28	118	118
Suffocation, overlying .. .. .					1	..	2	1	4	..	2	..	6	6
{ Congenital Malformations .. .. .					6	4	2	3	15	6	..	1	22	22
{ Premature Birth .. .. .					89	17	11	5	122	10	1	2	136	136
{ Atrophy, Debility and Marasmus .. .. .					26	10	9	11	56	30	22	8	120	120
Other Causes .. .. .					4	4	6	3	17	6	6	7	39	39
All Causes .. .. .					147	46	42	34	269	124	132	121	103	749

Nett Births in the year { Legitimate, 5724.  
 { Illegitimate, 263.

Nett Deaths in the year of { Legitimate Infants, 701.  
 { Illegitimate Infants, 48.

MANUSCRIPT  
INTRODUCTION  
PREFACE





Table XII.

NOTTINGHAMSHIRE.

RURAL DISTRICTS.

**INFANT MORTALITY.**

1915.

Nett Deaths from stated causes at various Ages under 1 Year of Age.

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.
All causes	{	Certified .. ..	61	10	8	10	89	50	25	35	34	233		
		Uncertified .. ..	10	..	1	1	12	2	2	..	1	17		
Small-pox .. .. .					..	..	..	..	..	..	..	..	..	..
Chicken-pox .. .. .					..	..	..	..	..	..	..	..	..	..
Measles .. .. .					..	..	..	..	..	..	2	6	8	
Scarlet Fever .. .. .					..	..	..	..	..	..	..	..	..	..
Whooping Cough .. .. .					..	..	..	..	..	2	4	2	..	8
Diphtheria and Croup .. .. .					..	..	..	..	..	..	..	..	..	..
{	Diarrhoea .. .. .	..	..	1	1	2	2	1	1	2	8			
	Enteritis .. .. .	..	..	..	..	..	6	..	1	..	7			
{	Tuberculous Meningitis .. .. .	..	..	..	..	..	1	..	..	1	2			
	Abdominal Tuberculosis .. .. .	..	..	..	..	..	..	..	2	1	3			
Other Tuberculous Diseases .. .. .					..	..	..	..	1	..	..	1		
Atelectasis .. .. .					3	..	..	..	3	..	..	..	3	
Injury at Birth .. .. .					1	..	..	..	1	..	..	..	1	
Erysipelas .. .. .					..	..	..	..	..	1	..	..	1	
Syphilis .. .. .					..	..	..	..	..	..	..	..	..	
Rickets .. .. .					..	..	..	..	..	..	1	1	2	
Meningitis ( <i>not Tuberculous</i> ) .. .. .					..	..	..	..	..	..	..	..	..	
Convulsions .. .. .					7	1	1	1	10	5	6	3	3	27
Gastritis .. .. .					..	..	..	..	..	1	2	1	..	4
Laryngitis .. .. .					..	..	..	..	..	..	..	..	..	..
Bronchitis .. .. .					..	..	..	..	..	2	4	7	5	18
Pneumonia (all forms) .. .. .					1	..	1	1	3	6	4	7	11	31
Suffocation, overlying .. .. .					1	..	..	..	1	1	..	..	..	2
{	Congenital Malformations .. .. .	4	2	..	..	6	4	..	2	1	13			
	Premature Birth .. .. .	36	3	5	3	47	7	1	1	..	56			
Atrophy, Debility and Marasmus .. .. .					14	3	1	4	22	11	2	4	1	40
Other Causes .. .. .					4	1	..	1	6	3	2	1	3	15
All Causes .. .. .					71	10	9	11	101	52	27	35	35	250

Nett Births in the year { Legitimate, 2747.  
 { Illegitimate, 109.

Nett Deaths in the year of { Legitimate Infants, 236.  
 { Illegitimate Infants, 14.





TABLE XIII. NOTTINGHAMSHIRE. Abstract of Vital Statistics.

Year.	Estimated Population at the middle of the year.	Annual Increase of Population.	Persons per Acre.	Separate Families.	Persons per Family.	Registered Births.	Births per 1000 of the Population.	Deaths under 1 year per 1000 Births.	Registered Deaths.	Deaths per 1000 of the Population.	Death Rate corrected for Transferable Deaths.	Death Rate corrected for Transferable Deaths, and for age and sex distribution.	Deaths from the Seven Principal Zymotic Diseases per 1000 of the Population.
1891	232,776	..	·44	49,186	4·7	8202	35·2	138	4135	17·7	..	..	..
1892	236,770	3994	·46	..	..	8007	33·9	147	4051	16·7	..	..	..
1893	240,026	3256	·46	..	..	7949	33·1	..	4087	17·0	..	..	..
1894	243,965	3939	·47	..	..	7747	31·7	130	3585	14·7	..	..	..
1895	248,060	4095	·48	..	..	8066	32·5	154	4128	16·6	..	..	..
1896	252,282	4222	·49	..	..	8154	32·3	138	3987	15·8	..	..	..
1897	256,667	4385	·5	..	..	8186	31·8	152	4115	16·0	..	..	1·7
1898	261,224	4557	·505	..	..	8117	31·0	151	4187	16·0	..	..	1·74
1899	265,952	4728	·51	..	..	8266	31·0	161	4375	16·4	..	..	2·01
1900	270,862	4910	·52	..	..	8292	30·6	160	4617	17·0	..	..	1·75
1901	275,971	5109	·53	59,114	4·6	8636	31·3	145	4139	14·9	..	14·3	1·79
1902	282,563	6592	·54	..	..	8920	31·5	138	4116	14·5	14·5	13·9	1·07
1903	289,001	6433	·55	..	..	9072	31·3	134	4146	14·3	13·9	13·3	1·20
1904	295,586	6585	·56	..	..	9379	31·7	139	4375	14·8	14·5	13·9	1·77
1905	302,321	6735	·57	..	..	8880	29·3	126	4451	14·7	14·8	14·2	1·70
1906	309,209	6888	·59	..	..	9088	29·3	121	4148	13·4	13·7	13·1	1·33
1907	316,355	7146	·60	..	..	8962	28·3	127	4479	14·1	14·3	13·7	1·42
1908	323,461	7106	·62	..	..	9818	30·3	119	4367	13·5	13·7	13·1	1·06
1909	330,831	7370	·63	..	..	9740	29·4	106	4324	13·0	13·3	12·7	0·97
1910	338,937	8106	·64	..	..	9554	28·2	110	4261	12·5	12·7	12·2	1·08
1911	345,930	6993	·66	76,236	4·5	9453	27·3	125	4435	12·8	13·1	12·5	1·98
1912	355,046	9116	·68	..	..	9213	25·9	93	4059	11·4	11·8	11·4	0·80
1913	362,307	7261	·69	..	..	9369	25·8	101	4309	11·8	12·2	11·8	0·94
1914	367,617	5310	·70	..	..	9541	25·9	107	4574	12·4	12·7	12·3	1·27
1915	353,193	..	·67	..	..	8843	25·0	112	4943	13·9	14·3	13·8	1·39
For comparison—													
1915 England and Wales .. ..					..	..	21·8	110	..	15·1	..	14·8	
96 Great Towns .. ..					..	..	22·8	117	..	15·6	..	15·9	
148 Smaller Towns .. ..					..	..	21·6	114	..	14·0	..	14·2	
England and Wales less the 244 Towns .. ..					..	..	20·7	98	..	14·8	..	13·6	

The Statistics for England and Wales are those published in the Quarterly Return of the Registrar-General for January, 1916. They are subject to revision when the causes of death and other details shall have been finally classified for publication in the Registrar-General's 77th Annual Report. The alterations, however, are usually very slight.





Table XIV. NOTTINGHAMSHIRE. RAINFALL.

DISTRICT.	Total depth in inches, 1915.	No. of Rainy Days in 1915.	Total depth in inches, 1914.	No. of Rainy Days in 1914.	Depth in inches, 1914.	No. of Rainy Days in 1913.	Depth in inches, 1913.	No. of Rainy Days in 1912.	Depth in inches, 1912.	No. of Rainy Days in 1911.	Depth in inches, 1911.	No. of Rainy Days in 1910.	Depth in inches, 1910.	No. of Rainy Days in 1909.	Depth in inches, 1909.	No. of Rainy Days in 1908.	Depth in inches, 1908.	No. of Rainy Days in 1907.	Depth in inches, 1907.	No. of Rainy Days in 1906.	Depth in inches, 1906.	No. of Rainy Days in 1905.	Depth in inches, 1905.	No. of Rainy Days in 1904.	Depth in inches, 1904.	No. of Rainy Days in 1903.	Depth in inches, 1903.	No. of Rainy Days in 1902.	Depth in inches, 1902.	No. of Rainy Days in 1901.	Depth in inches, 1901.	No. of Rainy Days in 1900.	Height of ground.	Height above sea level.	STATION AND OBSERVER.
EAST RETFORD (Urban)	29.63	194	22.81	185	22.81	170	33.5	214	23.28	182	27.89	206	30.21	201	21.26	183	24.68	191	20.44	168	17.35	158	19.86	166	29.51	187	19.69	169	1 ft.	74 ft.		J. D. KENNEDY, Esq., Market Square, Retford.			
BEESTON	31.76	178	27.48	188	24.34	174	33.89	202	21.99	173	29.61	195	28.56	188	25.54	185	27.75	193	26.47	185	20.44	184	21.65	174	35.00	203	21.84	190	9 ins.	206 ft.		F. ROTHERA, Esq., M.D., Manor House, Beeston.			
EASTWOOD	26.65	..	30.21	211	26.89	181	38.74	221	22.06	185	..	..	28.62	205	26.14	194	30.15	193	28.87	182	21.72	162	21.19	157	34.40	186	24.84	178	1 ft.	245 ft.		Messrs. BARBER, WALKER & Co., Eastwood, Nottingham.			
BASFORD	26.60	..	27.98	160	25.23	140	35.52	178	19.29	140	25.86	166	27.22	162	22.45	159	24.70	169	24.55	168	20.57	161	20.57	141	34.32	173	23.43	175	1 ft.	475 ft.		Mr. S. MAYLAN, Selston Waterworks, near Annesley, Nottingham.			
BASFORD	29.12	172	25.52	188	23.66	165	33.07	201	19.49	178	30.42	229	28.99	194	23.77	189	26.89	184	25.52	168	19.33	167	19.40	162	31.64	197	23.09	189	1 ft.	396 ft.		T. L. K. EDGE, Esq., Strelley, Nottingham.			
BASFORD	..	..	25.32	168	21.91	138	32.02	178	17.38	144	25.77	130	23.91	146	20.555	161	23.973	171	22.471	162	18.378	118	19.439	155	28.57	180	19.68	161	1 ft.	65 ft.		Corporation Farm, Stoke Bardolph, Nottingham.			
BASFORD	..	..	26.42	170	23.72	160	33.19	203	21.13	175	27.55	193	26.03	196	21.690	186	25.390	194	24.030	178	19.510	168	21.11	174	..	..	..	..	9 ins.	65 ft.		F. W. DAVIES, Esq., Burton Joyce Waterworks, Nottingham.			
BLYTH & CUCKNEY	25.74	166	21.60	173	22.34	164	33.45	190	19.29	160	24.87	184	27.83	189	20.38	179	23.66	197	23.43	179	16.91	152	19.81	165	27.95	190	22.10	170	..	56 ft.		H. MELLISH, Esq., Hodssock Priory, Worksop.			
NEWARK (Rural)	..	..	..	..	22.57	172	31.65	212	21.4	183	26.66	..	27.88	..	21.29	209	23.01	193	19.32	138	17.51	129	17.21	119	27.48	152	17.96	141	1 ft.	28 ft.		E. TURTON, Esq., North Collingham, Newark.			
SOUTHWELL	26.95	161	24.57	184	23.44	174	30.91	206	19.93	185	26.12	219	27.18	214	21.10	198	..	..	..	..	..	..	..	..	..	..	..	..	1 ft.	131.27 ft.		H. HANDFORD, Esq., M.D., Southwell.			
KINGSTON & RAT-CLIFFE	25.99	..	..	..	22.01	..	29.06	185	18.01	156	26.56	204	25.29	218	21.08	181	22.76	183	21.26	165	..	..	..	..	..	..	..	..	..	..	..	..	J. DUNLOP, Esq., Midland Agricultural & Dairy College, Kingston, Derby.		





