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STAFFORDSHIRE COUNTY COUNCIL.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

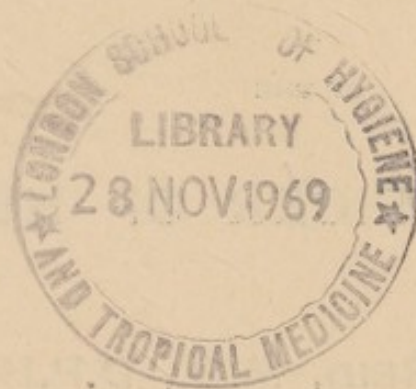
GEORGE REID, M.D., D.P.H.,

FOR THE YEAR 1912.

STAFFORD:

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STAFFORDSHIRE COUNTY COUNCIL.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH,

Presented to the Council at the Quarterly Meeting,

November 11th, 1913.

In this, my Twenty-fourth Annual Report, I propose to adhere, so far as collating the Reports of District Medical Officers of Health is concerned, to the general plan adopted originally, and deal with the various reports under subject headings, in place of devoting a special summary to each.

I have again indexed the report, so that each question dealt with, whether of general or special significance, may at once be referred to.

In the "Summary of the Year's Work of the Public Health Committee of the County Council," I have endeavoured to convey some idea of what has been done during the year in public health work, more with the view of indicating the lines on which the Committee are proceeding than in the hope that such a condensed account can convey an adequate idea either of the work itself or the good which has attended it.

As regards my duties as School Medical Officer, a full report on the year's work has already been presented to the County Education Authority, and to the Board of Education, and, so far as this report is concerned, reference to that work will only appear in commenting upon such of the reports of local Medical Officers of Health as contain paragraphs bearing upon the question from a local point of view.

G. R.

SUMMARY OF THE YEAR'S WORK OF THE PUBLIC HEALTH
COMMITTEE OF THE COUNTY COUNCIL, WITH GENERAL
COMMENTS ON PUBLIC HEALTH ADMINISTRATION.

As regards the summary of the work of the Public Health Committee, I would point out that the year embraces a period of twelve months ending June 30th, 1913, as the last summary covered the ground up to the end of June, 1912. So far as that portion of the report which deals with the reports of District Medical Officers of Health is concerned, the period covered embraces 1912 only.

The routine work under the Rivers Pollution Prevention Acts has proceeded on former lines. The systematic work of inspecting existing sewage disposal works has gone on uninterruptedly, and each year, as new works are completed, more and more time has to be devoted to this part of the work. As regards the collection of samples of effluents and river waters for analysis, the number collected this year exceeded that of 1911, being 148 compared with 82, consisting of 69 sewage effluents and 65 river waters. In addition to these, 12 well waters and two trade wastes were analysed.

As regards sewage effluents, while special attention is directed to recently constructed works, the works which have been thoroughly established are by no means overlooked. All are systematically inspected by the County River Inspector, who uses his own judgment as to the collection of samples for analysis, at once reporting to me any irregularities he observes. Needless to say, his visits are surprise ones, no previous notice being given of his intention to visit, and it speaks well for the good faith of the local authorities that his visits are hailed with appreciation rather than resentment.

It is customary to call the Public Health Committee's attention at the time to any serious irregularities which are noted in the management of sewage works, and the responsible Authorities in such cases are invariably communicated with. Many lesser irregularities noted, however, are satisfactorily dealt with by myself, without troubling the Committee, by merely calling the local surveyor's attention to them.

To comment at all fully on the action taken during the year in the matter of rivers pollution would require more space than can well be devoted to one subject in a summary of this description. Still, it may be useful to refer, shortly, to the more important questions in this department of the Public Health Committee's work which have received attention.

In my reports for previous years I have called attention to the condition of the river Tame as it is influenced by the disposal of the sewage at the Tame and Rea Drainage Board's works, and have pointed out that the improved condition of the river as it re-enters the County from Warwickshire was maintained. The Council will be pleased to learn that the Drainage Board in question are still engaged in enlarging their works in order to cope with the growth of population.

As regards the districts which drain into the Tame above the Drainage Board's area, considerable progress has been made. The new and extensive works at Walsall have been so far completed as to allow of half the filter area being brought into use, while every effort is being made to complete the other half. From various causes, such as strikes, and the consequent difficulty in getting the material on the ground, regrettable delay has taken place, but I confidently anticipate that in my next annual report I shall be in a position to record the successful working of the full plant.

As regards the new sewage disposal works for Darlaston, regrettable delay has occurred, the reasons for which advanced by the District Council are not very satisfactory. It is said that the plans have long since been completed, but that application for a loan has been delayed owing to the discovery that a new pumping plant was required for which further plans had to be prepared. In reply to enquiries, no reason was given why this discovery was not made earlier, and why, when made, it should have taken so long to prepare the needful plans; it is difficult, therefore, to avoid the conclusion that, notwithstanding their previous assurances, the District Council did not display much energy in forwarding the work. So long ago as January, 1912, the Clerk of the District Council, in a letter to the Clerk of the County Council,

said that a scheme had been approved by the General Purposes Committee and recommended for adoption. The position now is that the plans have, at last, been forwarded to the Local Government Board, and one can only hope that when the loan has been sanctioned the District Council will show a greater desire to expedite the carrying out of the work than they appear to have done during the initial stages.

The new works at Willenhall, which I stated in my last annual report would probably be completed in July, 1913, are now approaching completion, and will soon, I hope, be in full operation.

As regards the other large centres of population in the south of the County, satisfactory effluents continue to be discharged from the works at Bilston, Wednesbury, Oldbury, and Tipton. In the last named district the new works have not yet been called upon to treat the full volume of sewage for which they were designed, because many of the houses are still unconnected with the sewers; the local Surveyor, however, states that during the present year a large number of house connections will be made. Very soon, in the course of the systematic inspection of the urban districts in the County which is now in progress, I shall have occasion to report on the sanitary circumstances in Tipton, and I shall then make a point of getting to know the exact position in this respect.

As regards the County Borough of West Bromwich, there are indications that the sewage disposal works are being overtaxed and the Corporation will soon have to consider a scheme for extending the plant.

So much for the conditions of sewage disposal in the south of the County. Perhaps the best testimony as to the improvement in the quality of the streams resulting from the large expenditure in disposal works during recent years, is the opinion of Mr. Watson, the Engineer of the Birmingham, Tame, and Rea Drainage Board, who, of course, is vitally interested in the quality of the Tame as it reaches his works, after receiving the effluents from the densely populated Staffordshire area above. In a recent letter to me Mr. Watson said:—"I am sure you are doing a good deal, as the river is decidedly improving."

As regards other parts of the County, where, for various reasons, as the Council are aware, the sewage disposal problem received earlier attention; good effluents continue to be discharged from nearly all the modern works. For reasons already known to the Council, however, the Burslem works must be mentioned as constituting an exception to this rule, and I fear it will remain so until the defects arising from faulty construction of the new works are remedied. With this object, work is now in progress, and it is anticipated that the faults will be completely remedied by the end of 1914. Meanwhile, as each section of the faulty plant is dealt with, the damage done to the stream which receives the effluent will progressively diminish.

During the year, questions of sewerage and sewage disposal in the following districts have been specially considered, and dealt with, by the Public Health Committee, namely, Audley, Brierley Hill, and Uttoxeter Urban Districts, and Cheadle, Cannock, Leek, Seisdon, and Uttoxeter Rural Districts.

As regards Audley, it would appear that the District Council have at last decided to provide efficient works. An experienced engineer has been consulted and he has framed proposals, which, when carried into effect, will put an end to all further complaints.

In the case of Brierley Hill, the work of connecting the houses with the new sewers was long delayed, and it became a question as to whether proceedings would not have to be taken against the District Council under the Rivers Pollution Prevention Acts. Ultimately, however, the work was put in hand, and I believe that it is now progressing satisfactorily.

The long standing difficulty in the case of Uttoxeter as to the disposal of the drainage of two milk factories still remains unsolved, the District Council having determined not to adopt the recommendation of the County Council and receive the waste into their sewers. This determination caused rather a deadlock, because the Public Health Committee did not like to recommend the County Council to take proceedings against the manufacturers seeing that they were of opinion that the District Council should afford facilities for receiving

the drainage. Under the circumstances, as the Council are aware, the case was presented to the Local Government Board, who, on their part, referred it to the Royal Commission on Sewage Disposal, with the result, as I understand, that the same advice has been given to the District Council as was given them by the Public Health Committee of the County Council, viz., that they should afford the manufacturers facilities for connecting with the sewers. What the effect of this reiteration of the advice by the central authority will be remains to be seen.

As regards the sewerage of Penkridge, in the Cannock Rural District, the District Council, while admitting that a sewerage scheme was necessary, asked that the matter might be postponed owing to the great cost they had recently been put to in supplying the village with water, as well as the exceptional physical difficulties of sewerage the area. Accordingly, a Sub-Committee of the Public Health Committee met a Sub-Committee of the District Council at Penkridge, and, having heard the arguments, recommended the Public Health Committee not to press the matter at present, a course which was subsequently adopted.

As regards the sewerage scheme for Endon, in the Leek Rural District, the difficulties which have led to the long delay have not yet been overcome. The District Council cannot come to terms with the owner of the land which it is necessary to acquire, with the result that a joint application has been made that the price shall be fixed by arbitration.

As regards the village of Codsall, in the Seisdon Rural District, a representation was made to the District Council, as the outcome of my annual report for last year, calling their attention to the opinion of their own Medical Officer of Health that it was necessary to provide a sewerage scheme for the village. In reply to this representation the Clerk wrote to say that certain improvements had been carried out which rendered a sewerage scheme unnecessary, but on being asked what these improvements consisted of he declined to give an answer. Under the circumstances, then, it is my duty again to refer to the repeated advice of their Medical Officer of Health, quoted in the text of this report, from which it

would appear that he is still of opinion that a sewerage scheme for the village of Codsall is necessary.

With reference to general sanitary questions, the work of systematic inspection of urban districts has been continued throughout the year, and the following districts have been added to the previous list of those which had been inspected and reported upon in detail, namely:—Audley, Biddulph, Brownhills, Coseley, Kidsgrave, Sedgley, and Smallthorne. It is too soon to gather from the annual reports of the Medical Officers of Health as to how far these special inspections and the representations which followed them have led to improved conditions, but I am looking forward to being in a position next year to quote from such reports, favourably it is to be hoped, regarding the work which has been done in consequence of such representations.

Arising out of my annual report for last year, many matters have been dealt with affecting 19 districts, as follows:—Bilston, Brierley Hill, Brownhills, Cannock, Coseley, Kidsgrave, Newcastle, Perry Barr, Quarry Bank, Sedgley, Smallthorne, Tettenhall, and Willenhall urban districts, and Blore Heath, Gnosall, Lichfield, Seisdon, Stafford, and Stone rural districts.

In my previous summaries, the question of schemes for dealing with infantile ophthalmia have received prominent notice, and last year I was able to point out that 50 per cent. of the districts (representing 70 per cent. of the population) had then included ophthalmia among the list of notifiable diseases, compared with only 8·3 per cent. as regards England generally. Judging from the reports under review, in only two districts, namely, Quarry Bank and Smallthorne, has the disease since then been made notifiable, and it is difficult to see why all the districts do not come into line, having regard to the vital importance of the matter, and the ease and economy with which the disease may be dealt with and permanent blindness avoided. Later on, in dealing with the reports of the local Medical Officers of Health, attention will be called to the working of the schemes so far as they go, and it will be found that while certain authorities

have provided for the notification of the disease they have not provided special machinery for dealing with it.

Besides the annual reports of Medical Officers of Health I have received five special reports during the year, having reference chiefly to outbreaks of infectious disease.

With reference to the consultation work of the health department, which does not necessarily come before the Public Health Committee of the County Council, I have been consulted on 95 occasions by Medical Officers of Health and other officers of local authorities and also by Committees of the County Council on special matters of importance which have arisen.

This consultation work occupies a considerable amount of time, and often involves visits to different districts, either to make enquiries incidental to the points submitted, or to attend meetings of local authorities or committees. It embraces also a careful study of plans and specifications of works and buildings in order to report thereon.

The Council are again to be congratulated upon the success which has attended the arrangements for the gratuitous bacteriological examinations in suspected cases of diphtheria, enteric fever, and phthisis. In some districts, however, medical practitioners have not availed themselves of this aid to accuracy of diagnosis to the extent to which it was hoped they would. In the text of this report, the opinions of many of the District Medical Officers of Health regarding the value of the scheme are quoted, and in the following table the actual number of specimens examined since the commencement is set forth :—

	DIPHTHERIA.				TUBERCLE.				ENTERIC FEVER.			
	Positive.	Negative.	Doubtful.	Total.	Positive.	Negative.	Doubtful.	Total.	Positive.	Negative.	Doubtful.	Total.
Commencement of Scheme, Oct. 20, 1898, to June 30, 1899	110	101	1	212	...	...	...	...	...	...	...	...
{ From July 1, 1899, to June 30, 1900	196	180	2	378	...	...	...	...	...	...	...	...
{ From Jan., 1900, to June 30, 1900...	...	...	...	...	9	14	...	23	5	4	...	9
From July 1, 1900, to June 30, 1901	350	350	30	730	30	70	...	100	36	36	2	74
" " 1901, " " 1902	190	367	14	571	25	67	...	92	26	32	3	61
" " 1902, " " 1903	247	421	...	668	45	77	...	122	8	41	...	49
" " 1903, " " 1904	183	324	...	507	41	107	...	148	3	34	4	41
" " 1904, " " 1905	231	494	22	747	36	100	...	136	8	24	...	32
" " 1905, " " 1906	271	469	15	755	56	103	...	159	13	34	4	51
* " " 1906, " " 1907	714	771	...	1485	82	120	...	202	18	45	...	63
† " " 1907, " " 1908	660	943	...	1603	47	103	...	150	5	33	1	39
" " 1908, " " 1909	333	637	...	970	48	155	...	203	15	132	3	150
" " 1909, " " 1910	350	904	1	1255	62	187	...	249	11	57	1	69
** " " 1910, " " 1911	442	1518	1	1961	55	196	1	252	13	69	3	85
‡ " " 1911, " " 1912	311	1035	...	§1346	13	253	...	266	11	202	4	217††
" " 1912, " " 1913	175	549	...	724	109	424	...	533	10	35	...	45
Totals from commencement of Scheme to June 30, 1913.....	4763	9063	86	13912	658	1976	1	2635	182	778	25	985

* Seven special examinations of Cerebro-Spinal fluid for Meningococcus.

† From this year onwards, excluding Smethwick, now a County Borough.

** Excluding five Pottery Towns which, with Hanley, now constitute the new County Borough of Stoke-on-Trent.

‡ Handsworth added to Birmingham C.B., November 9, 1911.

§ Including 224 "Contacts."

†† Including 109 Special Blood Examinations from Cheddleton Asylum.

Owing to the steady increase in the number of specimens submitted, notwithstanding the decline in population from the loss of the pottery towns, Handsworth, and Smethwick, it became necessary, a year ago, to re-consider the scale of payment for the work, with the result that, in place of payment by an inclusive annual sum, each specimen is now charged for on the following scale, namely:—

Diphtheria	..	..	..	5/-	per specimen.
" " " contacts "	..	..	..	2/6	" "
Tubercle	..	..	..	3/-	" "
Enteric Fever	..	..	..	5/-	" "

As regards the total expenditure last year on the new scale, it is satisfactory to note that it came short of the estimate prepared for the Public Health Committee when they had to consider the altered arrangements.

Under the Isolation Hospital Acts, 1893 and 1901, it will be remembered that a hospital area, comprising Audley, Kidsgrove, Smallthorne, and Wolstanton Urban Districts, was constituted by the County Council a year ago. The question of extending the existing hospital to meet the requirements of the extended area has since been under consideration, plans have been approved, and a loan sanctioned.

With reference to the administration of the Midwives Act, 1902, the Council have already been informed as to the progress of the work in the two divisions of the County, but the following statement, which I have compiled from official returns and from information supplied by the Inspectors, will indicate the present position of the County as regards the number of midwives on the Register and the number who have notified their intention to practise.

The number of certificated midwives on the Roll is 600, of whom 360 have notified their intention to practise, 109 being trained midwives. In addition to these, 12 midwives residing in county boroughs and adjoining counties have also notified their intention to practise within the administrative county.

During the period covered by this report (July 1st, 1912, to June 30th, 1913), in compliance with the rules of the Central Midwives' Board, 1,146 notifications have been received from certified midwives.

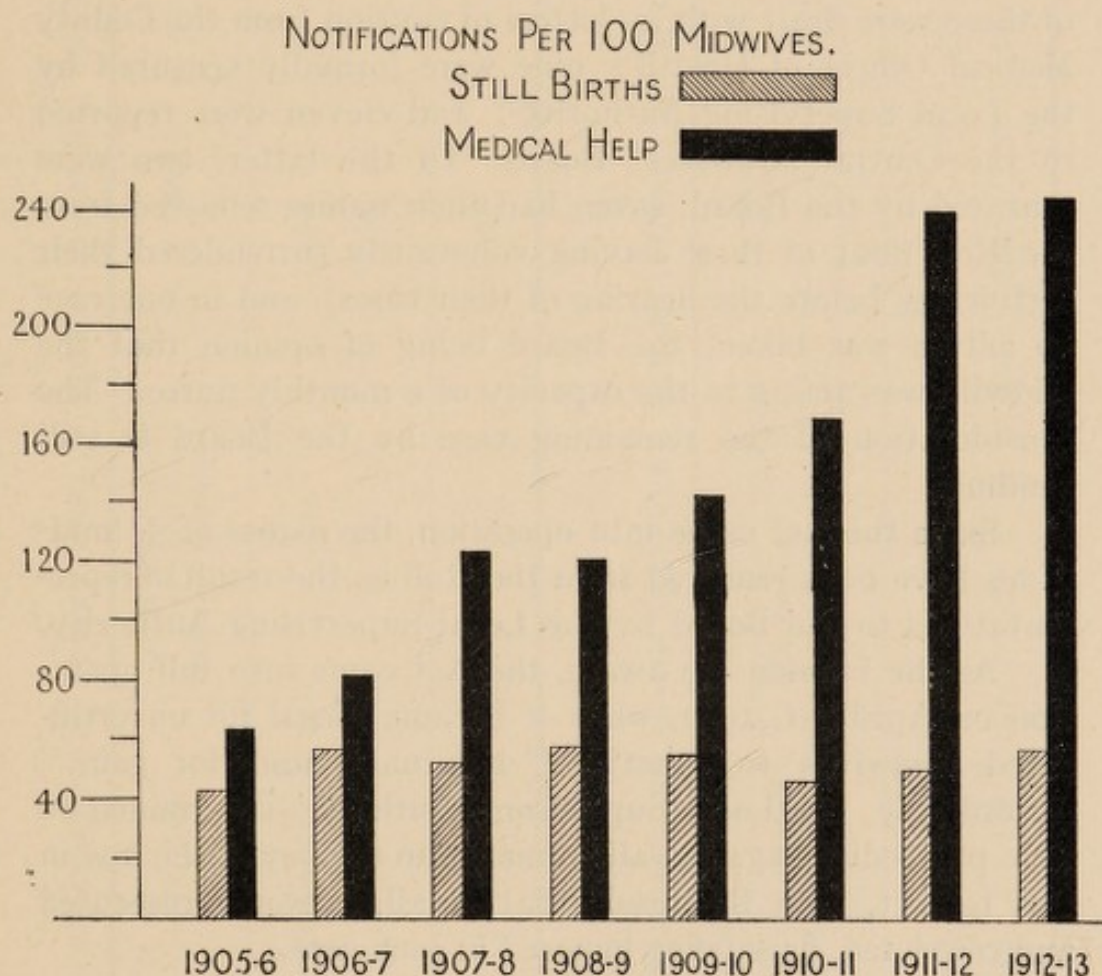
The following figures show the number and nature of notifications received in each of the past seven years :—

	1905-6.	1906-7.	1907-8.	1908-9.	1909-10.	1910-11.	1911-12.	1912-13.
Sending for medical								
help	379	476	593	606	680	695	924	893
Still Births ..	259	340	258	294	273	191	201	214
Death of mother ..	3	1	5	2	6	5	3	3
Ditto child ..	15	46	45	44	35	37	37	36

As regards the steady increase in the notifications of sending for medical help, the figures are highly satisfactory, as we may fairly infer from it that midwives are benefiting by the instruction of the Inspectors, and are realising more and more the importance of not undertaking the sole care of cases presenting abnormal features.

These figures are all the more satisfactory in view of the fact that in 1907 Smethwick was constituted a County Borough, thus removing 40 certified midwives from the number under the control of the Local Supervising Authority of the County, and also because of the transference of 73 midwives to the Local Supervising Authority of the County Borough of Stoke-on-Trent, constituted in 1910, and the inclusion of Handsworth in the County Borough of Birmingham in November, 1911.

The significance of these figures becomes more apparent when represented in diagrammatic form showing the relative proportion of medical help and still birth forms per 100 midwives in each year :—



It will thus be seen that while the rate of notification of still births was pretty constant, varying between the limits of 43 and 59, the corresponding rates of sending for medical help steadily progressed from 63 in 1905-6 to 248 in 1912-13, an increase of 293 per cent.

Unless reliable information is otherwise forthcoming, it is the routine practice to specially enquire into the circumstances attending all still births reported by midwives. This year 122 such enquiries were made, the total number of still births reported being 214. In addition to these, 45 other special enquiries took place, 26 relating to notifications of sending for medical help, 17 to deaths of infants, and two to deaths of mothers.

Besides such enquiries, reported irregularities to the number of 40 were specially investigated, as well as 27 cases of puerperal fever occurring in women attended by midwives.

During the year, 48 cases of irregular conduct were reported to the Local Supervising Authority. Twenty-eight of these were dealt with by letters of caution from the County Medical Officer of Health; nine were formally censured by the Local Supervising Authority; and eleven were reported to the Central Midwives' Board. Of the latter, two were censured by the Board, seven had their names removed from the Roll (four of these having voluntarily surrendered their certificates before the hearing of their cases), and in one case no action was taken, the Board being of opinion that the midwife was acting in the capacity of a monthly nurse. The consideration of the remaining case by the Board is still pending.

Since the Act came into operation, the names of 54 midwives have been removed from the Roll as the result of representations to the Board by the Local Supervising Authority.

As the Council are aware, the Act came into full operation on April 1st, 1910, when it became illegal for uncertificated midwives to practise "habitually and for gain." Accordingly, the Local Supervising Authority determined to take proceedings against all women who disobeyed the law in this respect, with the result that, in all, 34 were prosecuted and convicted, fines being imposed in each case.

It would appear that the policy of the Local Supervising Authority in prosecuting such women has had the desired effect, for in only one case had proceedings to be taken during the year under review.

During the year six midwives have died.

In the accompanying table the number of systematic visits by the two Inspectors during the year are set forth, together with particulars as to equipment, &c. :—

VISITS OF INSPECTORS DURING TWELVE MONTHS, JULY 1ST, 1912, TO JUNE 30TH, 1913.

DIVISION.	No. of Midwives who have notified intention to practise.	No. of Visits.	Actual No. of interviews.
DISTRICT A. ...	180	639	591
" B. ...	180	720	595
TOTAL ...	360	1409	1186

PARTICULARS AS TO EQUIPMENT AND EFFICIENCY OF MIDWIVES VISITED.

Division	No. of Midwives who have notified intention to practise.	Requirements.				No. reasonably clean as to		No. who can—			Reasonable knowledge as to treatment of mother and infant management.	
		Washing Dresses and Aprons.	Bags Equipped			Case Books and Forms.	Person.	Home.	Read Thermometer.	Read and write.		Pass Catheter.
			Fully.	Partially.	Nil.							
DIST. A.	180	180	162	17	2	179	170	169	165	153	83	177
„ B.	180	178	100	78	2	176	156	154	142	108	48	175

With reference to the infant mortality in the Administrative County, I had to call attention last year to the interruption in the steady decline noted during the previous nine years, a decline which to a large extent was to be accounted for by favourable climatic conditions, as also, no doubt, to improved sanitation. The climatic conditions of 1912 were undoubtedly favourable to low infant mortality, hence the marked contrast in the figures that year compared with 1911. We must expect such fluctuations, and it is only by comparing a series of years that an estimate can be formed of the extent to which improved sanitation influences this mortality.

Among the more pressing matters of sanitary reform, may be mentioned the systematic abolition of midden closets. Some of the authorities have shown much energy in this direction, but there is ample justification for special effort on the part of the County Council to bring about this reform by utilizing to the fullest extent the additional powers given them by the Housing and Town Planning Act. Local authorities can no longer justify inactivity on their part by professing that the law does not enable them adequately to enforce the substitution of water-carriage for conservancy methods of excrement removal, for, by adopting certain clauses of the Public Health Acts Amendment Act, 1907, they can acquire the needful powers of compulsion.

There can be no question that the continuance of conservancy methods tends to degrade the people and to discourage many from taking that interest in their homes, without which all-round cleanliness can never be secured. This, in itself, would justify a radical change, but when year by year the danger to health attending the system is more and more conclusively demonstrated, it is really incredible that so many local authorities should remain callous and require such constant spurring on to induce them to make what little progress there is being made. Without exception, the Medical Officers of Health of the County have, for a quarter of a century to my knowledge, been pressing for reform in this matter, and year by year it is most depressing to gather from their reports that progress is so slow that another quarter of a century

will elapse before we can hope to be able to refer to the system in urban districts as a thing of the past.

Mr. Berrington, late Borough Engineer of Wolverhampton, a town of just under 100,000 inhabitants, where the pail system is in operation, and now a member of the Corporation of that Borough, showed in a pamphlet, published in 1891, what the saving to the town would be if in one year the conservancy system was abolished in favour of water carriage. Allowing for the cost of conversion, and taking into account the annual saving in maintenance charges, he estimated that in twenty years' time the funds would benefit to the extent of £115,320. The Corporation, however, acted on Mr. Berrington's advice only to a limited extent, and the pail system is still very generally in operation. In 1912 an exhaustive report to a special committee of the Wolverhampton Corporation was prepared by Mr. Berrington, then the Chairman of the Public Health Committee, again strongly advocating the systematic introduction of water carriage, both on economic and on health grounds. The report points out that the extra charge for water of 10s. per closet per annum is the chief obstacle to the voluntary substitution of water-closets for pails, and strongly advocates the reduction of the charge to 4s. It is shown that what had already been accomplished in the direction of conversion since Mr. Berrington first brought forward the question had effected an annual saving of £7,000, allowing for part payment of the cost of conversion by the Corporation under a Provisional Order obtained in 1896. This saving exceeds the estimate of 1891, and more than proves the case as then put. The final conclusion of the recent report is that it would pay the Corporation, not only to reduce the water charge per closet to 4s., but also to pay the entire cost of conversion.

Is it too much to hope that Government will come to the rescue, and, either by special legislation, or by making the clauses in the 1907 Act compulsory, pave the way for the systematic abolition of privies in all urban districts within a certain limited period?

One important matter, reference to which must not be omitted, is the successful carrying through of a joint scheme

for dealing with tuberculosis, embracing the Administrative County and the County Boroughs of Wolverhampton and Dudley. Originally, it was hoped that other County Boroughs might come into the scheme, but, for the present, at any rate, they have determined to make the needful provision themselves. The effort to unite as many authorities as possible for this purpose caused considerable delay, but I am satisfied that, even although only two outside authorities joined the County, the delay was justifiable.

With reference to the milk supply, it cannot be said that the steps taken to discover tuberculous milk are at all adequate, and it is somewhat humiliating to find that our attention is so frequently directed to cows with tuberculous udders through action on the part of other authorities, such as London and Manchester. During the year, I have had 18 communications regarding tuberculous milk samples from the Medical Officer of Health of the London County Council, and in every instance a veterinary surgeon from London has visited the County to inspect the suspected cows.

As regards the Sale of Food and Drugs Acts, the administration of the Acts in this County by the Public Health Committee of the County Council is highly efficient.

The County is divided into two areas under the charge of two Senior Inspectors, who have under them assistants, and who also have the power of appointing further temporary assistants as occasion requires. The work under the Weights and Measures Act is also under the same administration and staff.

As regards the number of samples collected, this County compares favourably, I think, with other counties. In the following table I have set forth the samples which were analysed during the year 1912, together with the results:—

	No. of Samples Sub- mitted.	No. Genuine.	No. Adulter- ated.	Cautions	Prosecu- tions.	Convic- tions.
Arrowroot	35	35	...	...	...	...
Beer	7	7	...	...	...	...
Butter	287	276	11	2	7	7
Camphorated Oil ...	12	10	2	1	1	1
Cheese	6	6	...	...	...	...
Coffee	37	36	1	..	1	1
Dripping	1	1	...	...	...	...
Flour, Self-raising...	27	27	...	...	...	...
Ginger	3	3	...	...	...	...
Ginger (Ground) ...	59	58	1	1	...	...
Lard	148	148	...	...	...	...
Margarine	16	16	...	...	*1	1
Milk	1047	957	†90	42	47	46
Mustard	12	12	...	...	...	...
Oatmeal	2	2	...	...	...	...
Olive Oil	5	5	...	...	...	...
Pepper	126	126	...	...	...	...
Pills	1	1	...	...	...	...
Quinine, Tinc. of ...	2	2	...	...	...	...
Rice	1	1	...	...	...	...
Spirits	153	137	16	7	9	9
Sugar	4	4	...	...	...	...
Tartaric Acid	11	11	...	...	...	...
Tea	1	1	...	...	...	...
Vinegar	1	1	...	...	...	...
	2004	1883	121	53	66	65

* Mis-described in Advt. (Margarine Act, 1907, Sec. 8).

† One purchased unofficially—followed without result.

Summary of Reports with Comments.

AREA AND POPULATION.

I have no alterations to record this year in the area of the Administrative County, neither have the areas of the constituent districts been altered since my last report.

Last year (1911), being the census year, the various rates were, with the approval of the local Medical Officers of Health, based upon the census figures, which did not in all cases correspond with the estimated population in the reports, as these had been prepared previous to the publication of the census returns. As the reports under review are for the year following the census year, it is unlikely that the estimates are very far wrong.

In the following table the census figures of the Administrative County for 1911, and the estimated population up to the middle of 1912 are set forth, the urban being distinguished from the rural districts :—

	Census, 1911.	Estimated to middle of 1912	Increase.
Urban	459,811	463,622	3811
Rural	207,232	208,525	1293
Total.....	667,043	672,147	5104

BIRTHS.

The births registered in the Administrative County numbered 18,332, the number in the urban districts being 13,482, and in the rural districts 4,850.

The mean birth-rates in the whole Administrative County and in the urban and rural districts respectively, for four quinquennial periods and for the past four years, are shown in the following table, in which corresponding rates in England and Wales and in the large towns in England, compiled from the Registrar-General's returns, are included :—

DISTRICTS.		BIRTH-RATE PER 1000 OF POPULATION.							
		5 Years 1889-1893.	5 Years 1894-1898.	5 Years 1899-1903.	5 Years 1904-1908.	1909.	1910.	1911.	1912.
Staffordshire	{ Combined Urban & Rural	33·6	33·2	32·5	30·3	28·3	27·7	27·7	27·2
	{ Urban	35·5	34·7	33·6	31·5	29·0	28·7	29·3	29·0
	{ Rural	30·2	30·5	30·2	27·0	26·2	25·1	24·2	23·2
England and Wales.....		30·8	29·7	28·7	26·9	25·6	24·8	24·4	23·8
Large Towns in England		31·5	30·7	29·7	27·8	25·7	25·0	25·6	24·9

It will be noticed that the birth-rates for the Administrative County as a whole, and for the urban and rural districts respectively, are lower than in 1911, in fact, the rates this year in both cases are the lowest on record. At the same time, the urban rate is considerably higher than that for the large towns in England, and the rural rate very nearly approaches that of England and Wales.

In most of the reports under review the birth-rate is said to have been the lowest on record, and, in some, special attention is directed to the declining rates.

The Medical Officer of Health of Amblecote, where the low rate of 21.5 was recorded, points out that it compares with a mean rate of 26.8 for the past 10 years.

The Medical Officer of Health of Coseley, where the rate was 25.9, points out that the rate for 1909 was 33.2, the difference representing three fewer births per week in the district. In his opinion the low rate is partly attributable to "the exodus of many ironworkers and their families which occurred in the latter part of 1911, owing to trade reasons."

As regards Leek Urban District, the low birth-rate of 20.3 is all the more significant having regard to the relatively high death-rate of 16.6.

In the City of Lichfield, the position is similar, the birth-rate being only 19.7 and the death-rate 16.3.

DEATHS.

The number of deaths registered among persons belonging to the Administrative County amounted to 9,387, the number in the urban districts being 6,702, and in the rural districts 2,685.

In the following table comparative figures for four quinquennial periods and for the past four years are given, together with corresponding figures for the country as a whole, and for town and country districts throughout England :—

		DEATH-RATE PER 1000 OF POPULATION.							
		5 Years 1889-1893.	5 Years 1894-1898.	5 Years 1899-1903.	5 Years 1904-1908.	1909.	1910.	1911.	1912.
Staffordshire	{ Combined Urban & Rural	18.1	16.9	16.1	14.6	14.5	12.6	15.0	13.9
	{ Urban	18.9	17.5	16.6	15.1	14.9	12.8	16.1	14.4
	{ Rural	16.8	15.7	15.1	13.4	13.5	12.4	12.5	12.8
England and Wales.....		19.1	17.4	16.9	15.3	14.5	13.4	14.6	13.3
Large Towns.....		21.0	19.0	18.2	15.8	14.7	13.4	15.5	13.8
Country Districts.....		17.6	15.9	15.7	14.9	14.5	13.6	13.9	12.9

It will be noticed that, in the County as a whole, and in the urban districts the rates compare favourably with those for 1911, while in the rural districts the figures are practically identical. It must be remembered, however, that the rates in 1911 were exceptionally high, owing chiefly to an excess of deaths from diarrhoea among infants, the result of unfavourable climatic conditions. When this is taken into account the position is not quite so satisfactory, at the same time, when we are in a position to record the mean rate for the quinquennial period ending 1913, in all probability it will be found that the highly satisfactory and steady fall in the rates which has taken place during the four preceding quinquennial periods will be maintained.

The death-rates in urban and rural districts, together with the figures upon which they are based, are shown in the tables at the end of this report. In the following table the figures are given for those urban districts in which the rates this year exceed 16.0 per 1,000, together with figures and remarks bearing

on the influence which causes, preventable and more or less non-preventable, have had in causing such high rates. The districts are placed in order in accordance with the death-rates, the highest being placed first. The fact must not be overlooked, however, that there are other districts, besides those appearing in the table, in which the rates were by no means satisfactory, as a glance at the detail tables at the end of this report will show :—

DISTRICT.	Death rate per 1000 of Population.	Population estimated to middle of 1912.	Number of persons to the Acre.	Zymotic death rate per 1000 of population.	Occupation, &c.	Increase over average of entire districts from the undermentioned diseases, affecting appreciably the general rate.				Position as regards mean death rate for previous 10 years.
						Measles.	Whooping Cough.	Diarrhoea and Enteritis.	Diseases of Respiratory Organs.	
Bilston ..	17·6	25,681	13·7	2·60	Working class.	Considerable	Considerable.	Slight	Considerable.	19·0
Uttoxeter ..	17·3	5,650	5·4	0·53	do.	..	..	..	..	16·2
Darlaston ..	17·2	17,363	19·0	2·70	do.	Considerable.	Slight	..	Slight.	20·0
Leek	16·6	16,757	11·4	0·89	do.	..	..	..	..	16·5
Lichfield ..	16·3	8,616	2·4	0·23	Largely residential.	..	..	..	..	15·2

It will be seen from the last column in the above table that the five districts in question, especially Bilston and Darlaston, may be classed as high death-rate districts, and that it is only in the case of the two districts named that diseases over which sanitary administration can have little control at present, namely, measles and whooping-cough, have contributed to the high rates this year. As regards the City of Lichfield, being to a large extent a residential town, it is somewhat surprising to find that the mean death-rate is as high as 15·2.

As regards other districts, the Medical Officer of Health of the Borough of Newcastle, in commenting upon a rate of 14·2, states that it is the lowest on record. In the Borough of Stafford, where the rate was only 12·3, it is also said to be the lowest on record, the mean for the past ten years being 14·9, and the Medical Officer of Health attributes this largely to a reduced infantile mortality and a lower death-rate from tuberculosis. In Wednesfield a death-rate of 11·8 is referred to as being the lowest on record.

As regards rural districts, the Medical Officer of Health of Cheadle points out that the rate of 10.5 is the lowest recorded during the past ten years. On the other hand, the Medical Officer of Health of Walsall Rural District writes regarding a rate of 14.2 as follows:—" I regret to state that the death-rate this year is the highest which has been recorded since 1901. It does not compare very unfavourably, however, with the average death-rate for country districts throughout England and Wales, which last year was 13.9, and it must be remembered too that a considerable portion of the larger parishes in this district is urban in character, and populated by people of the working class.

" I attribute the increase in the rate this year to two causes:—(1) The large number of persons who died in institutions (20) outside the district, and to the number of children who died at the commencement of the year from whooping-cough.

" I should like to again call attention to the fact that much more accurate information is given to Medical Officers of Health of deaths occurring outside their district of persons whose usual residence is within it."

INFANTILE MORTALITY.

It has been my practice in previous years to compile a table showing the districts in which the infantile death-rates have been exceptionally high, and, as time went on, I am happy to say, I was able to reduce the qualifying standard from 200 per 1,000 births to 170, the figure taken for the years 1908-9. Two years ago, partly owing to a continued decline in the rate all round, but principally to the removal from the Administrative County of the pottery towns, I was in a position to reduce the qualifying figure to 125 and over. In 1911, however, I regret I had to resume the old high figure of 170 owing to the great increase all round in the infantile mortality; it is satisfactory, therefore, to be able to return to the lower figure once more.

In the following table are set forth those urban districts which exceed that standard this year:—

Deaths among children under one year in certain districts per 1,000 births.

	Bilston.	Brierley Hill.	Brownhills.	Darlaston.	Perry Barr.	Sedgley.	Willenhall.
1889-1893	203	178	146	214	150	172	182
1894-1898	207	170	129	212	146	153	207
1899-1903	188	146	153	204	168	136	179
1904-1908	186	164	132	196	148	142	155
1909	146	121	160	182	174	136	179
1910	122	145	106	149	77	105	104
1911	132	167	118	173	229	158	181
1912	149	135	128	144	163	138	131

It will be seen that, with the exception, possibly, of Brownhills, all the districts included in the above table may be said to be high infantile mortality districts. It will be noticed that the rate at Perry Barr is very erratic, a circumstance which is accounted for by the small population of the district, at the same time, this is discounted to a large extent as regards the means for quinquennial periods. It is satisfactory to note that the Perry Barr District Council have now adopted the Notification of Births Act and have appointed a Health Visitor, and, judging from experience in other districts where the Act has been in operation for some time, one may confidently expect that this move will prove to be most valuable in lowering the infantile mortality.

As is usual, the question of reducing the infantile mortality is dealt with at considerable length in most of the reports, and there is a general concensus of opinion that among preventive measures a prominent place must be given to the work of health visitors. In the smaller districts there would not be sufficient work to occupy a whole-time officer, but this difficulty could be overcome, either by uniting areas with small populations for this purpose, or by subsidising local nursing associations or the County Association for the services of district nurses for this purpose. It is satisfactory to gather

from the reports under review that the adoption of the Notification of Births Act is extending in the County, and, apparently, it is the intention of the Local Government Board to expedite the movement, for, while this report was in preparation, a circular was received from the Board setting forth the present position throughout the country as regards the appointment of health visitors and urging authorities, including County Councils, to favourably consider the making of such appointments.

The following are a few extracts from the reports of the medical officers of health under this heading :—

The Medical Officer of Health of Amblecote writes :—

“ It is satisfactory to note that the infantile mortality is again low, as such high jumps as we had last year seriously affect the average.

“ Another satisfactory point is that there were no deaths from diarrhoea. The wet season, by keeping down dust, no doubt kept the disease in check, just as in the preceding year the very hot dry weather favoured its spread.

“ The usual precautions were taken, such as sewers and drains being regularly flushed, and careful attention being paid to the scavenging during the summer months.”

The Medical Officer of Health of Leek Urban District, referring to a low infantile mortality rate of 87 per 1,000 births, quotes from the report of the health visitor as follows :—

“ During last year, from January 1st to December 31st, 1912, 317 houses where births have occurred have been visited. Of these births, two were twins, making a total of 319 infants. Twenty-one of these were still-born, and of the remaining 298 living babies 94 were entirely breast fed, 44 breast and bottle or breast and hand fed, and 155 entirely bottle fed. Five died before any regular method of feeding was adopted.

“ In each house, cards giving hints on infant feeding have been supplied, and in many cases these have been much appreciated by the mothers, and the advice given thereon has been carefully carried out.

“ I have made 4,344 return visits, making a total of 4,661, in order to note the progress of the babies, and where necessary to give further advice and practical help.

“ The mothers of 95 of these babies returned to their work at the mills at the end of the first or second month, giving their babies out to nurses who, for the most part, are elderly women and difficult to influence.

“ The hygienic tubeless bottle largely predominates. Of the 155 entirely bottle fed babies, 144 have used the hygienic bottle.

“ There have been eight cases of ophthalmia among the babies born this year. These have been visited four and five times daily, and in seven cases a perfectly satisfactory recovery resulted. The eighth case, I much regret to record, has resulted in partial if not total blindness. In addition, there has been a number of suspicious cases which were visited twice daily, but these, yielding to treatment, speedily cleared up.”

The Medical Officer of Health of the Borough of Newcastle writes :—“ The Notification of Births Act has during the year become more than a mere formality by the appointing of a health visitor.

“ Five hundred and forty-nine births were notified to the Medical Officer under this Act, amounting to 90 per cent. of the births registered during 1912.

“ Since her appointment, the health visitor has paid 255 visits. The visits are paid after the receipt of the notification and at intervals of three months. A printed card of advice is given to the mother on the feeding and upbringing of the child, and additional information and directions as to the preparation of cow's milk and infants' foods is given by the health visitor, as well as advice on the storage of milk and its prevention from contamination.”

“ Such work is of the highest importance from the point of view of life-saving. Infants under one year old are so helpless against the assault of microbes gaining entrance to their system by means of food that they have to be guarded from it. And the time and trouble taken to educate the mothers on these points could not be better spent.

“ The advent of such a summer as 1911, favourable to an outbreak of diarrhoea, may mean heavy loss in infants’

lives, and the occurrence of the infection by milk, etc., is not due to neglect, but ignorance."

In Quarry Bank it would appear that what is termed a Council Midwife has been appointed, and it is predicted that this will have a beneficial effect in reducing the infantile mortality, chiefly through instructions from her as to infant feeding.

The Medical Officer of Health of Rowley Regis writes :—
" Fifty-seven of the deaths registered during the year under review were of infants under one month, and it is here that further control might be exercised beneficially through the adoption of the Notification of Births Act, which would enable a Health Visitor to call and give advice to the parents of recently born children.

" The deaths from diarrhoeal diseases show a decrease on those of the previous year, viz., 10 as compared with 23, although the abnormal summer heat of 1911 may account for the latter high figures. On the other hand, bronchitis and pneumonia have been responsible for an increase of 21 deaths during the past year, and as these, to a certain extent, may be viewed as preventable diseases, the need for continued supervision is obvious."

With reference to the above quotations, there does not seem to be any reason why the Notification of Births Act should not be adopted as it would appear that a health visitor has already been appointed who is engaged in school work.

The Medical Officer of Health of Sedgley attributes part of the high death-rate among infants in his district to premature births caused by heavy work by married women in the brickyards.

The Medical Officer of Health of Smallthorne, in referring to the improper feeding of infants as a cause of infantile deaths, states that this could be counteracted by the adoption of the Notification of Births Act and the appointment of a health visitor.

The Medical Officer of Health of the Borough of Stafford writes :—" This year a marked reduction is manifest in the number of deaths of infants under a year old. Only 47 such deaths have been registered, which are equal to a rate of 80

per 1,000 registered births. This constitutes a record for Stafford, the previous lowest rate being 94·6 in 1910. The mean rate for the previous decennium is 120. This year's rate is, therefore, lower by over 33 per cent. By reference to Table IV. it will be seen that 15 infants, *i.e.*, a third of the total, died during their first week. By the end of the first month, 23, or half of the infants, had died. As to causation, premature birth accounted for 11, wasting diseases for eight, pneumonia 7, bronchitis 2, convulsions 6, tuberculosis 5, measles 1, and other causes 7. It is a remarkable and noteworthy fact that not a single death was returned as due to diarrhoeal disease, whereas in the previous year no fewer than 27 such deaths were recorded. The difference in these two years is due for the most part to the widely different climatic conditions which obtained. In 1911 we experienced a prolonged drought, with high temperature, just those conditions which favoured the development of germ-life, which sets up putrefaction in the infants' food. This year we had a continuously cold and wet summer, with practically no dust and few flies. At the same time, it is only fair to point out that on March 1st the Notification of Births Act came into force in the town, and so a hitherto unknown supervision over infants has been exercised. It is early days yet to credit that supervision with any definite proportion of the infant life that has been saved. Only after a much longer period can we say what its influence has been. It is permissible, however, to draw attention to the work of our Health Visitor in this connection, and to express the hope that the present welcome decline in the infantile mortality is not a mere coincidence. The following figures apply to the feeding of the 47 infants who died :—

Breast, wholly	..	..	..	12
Breast, partly	..	..	..	6
Artificial, wholly	..	..	..	10
Only lived a few hours	..	..	..	13
Not known	..	..	..	6 "

Later, in the same report, the Medical Officer of Health writes :—" Notification of Births has been advocated by me in my reports for some years, and it is gratifying now to have the Act of 1907 adopted in the district. It came into force

on March 1st, 1912. During the ten months 473 births were notified, practically all the births which occurred, and it is very gratifying to record the readiness with which the requirements of the Act have been observed throughout the town. Of the total notified, some 322, or 68 per cent., were visited, and of this number 235 had been attended by midwives. There were ten stillbirths. The usual practice is for the Health Visitor to pay her first visit in ten days' time, that is, after the doctor or midwife has ceased attending. About six re-visits, as an average, are paid, where the circumstances point to it being expedient, and the infants are kept under observation until they reach the age of twelve months. Of the 322 cases having original visits, 282 were re-visited at intervals varying from four to eight weeks—and more frequently in some cases."

In Stone Urban District, where the Notification of Births Act has been in operation for three years, the health visiting is carried out by the district nurse, who paid 820 visits to 67 infants during 1912.

The Medical Officer of Health of Wednesfield recommends his Authority to adopt the Notification of Births Act.

In referring to an infantile mortality rate of 100 in his district, the Medical Officer of Health of Wolstanton states that it is the lowest on record since the formation of the urban district in 1904, and says:—"One of the chief factors contributing to this low infant mortality has been the absence of cases of diarrhoea during the summer months. Now that the Notification of Births Act has been adopted, and a health visitor appointed, I venture to hope that this low infant mortality may be still further reduced in the near future."

In the same report the duties of the health visitor, who was appointed in December, 1912, are set forth as follows:—"1.—To visit houses in which births have recently occurred; to offer advice concerning the feeding and care of infants; to make notes concerning the condition of the infants and their surroundings; to repeat these visits at intervals where necessary.

"2.—To make inquiry concerning still-births and all deaths of infants, and, in special cases, concerning deaths of older children.

“ 3.—To make inquiry concerning the influence of various employments upon child-bearing women.

“ 4.—To ascertain as far as possible where diseases are prevalent among infants and young children. This refers especially to epidemic diarrhœa and epidemics of measles, whooping-cough, etc.

“ 5.—To assist in visiting cases of phthisis and other tuberculous diseases.

“ 6.—To visit workshops, such as dressmakers and milliners.

“ 7.—To keep records of her work in books provided for the purpose, and generally assist in the preparation of reports.”

The Medical Officer of Health of Gnosall Rural District refers to an infantile mortality rate of 48 as being the lowest on record.

The Medical Officer of Health of Lichfield Rural District writes:—“ The preservation of infant lives has assumed additional importance in view of the declining birth-rate, for although the deaths were only nine in excess of 1911, the rate has risen from 75 to 91 per 1,000 births. If this rate is to be lowered, work of an educative nature among mothers is absolutely necessary, and this can only be effectually accomplished by the adoption of the Notification of Births Act and the appointment of a specially trained health visitor. Miss Wheeley, in the course of her work among tuberculous patients, visits the greater part of this district, and might therefore, I think, be able to combine the two offices.

“ The climatic conditions which prevailed in 1912, by causing a larger number of fatal cases of bronchitis and pneumonia, contributed materially to the increased rate, but wasting diseases alone were still responsible for nearly 20 per cent. of the deaths, and diseases of the digestive tract for another 11 per cent. These, at all events, should be capable of being substantially reduced, and it is in such cases that the services of a health visitor, if the experiences of other places are to be relied upon, should prove of great value. In connection with deaths from diarrhœal diseases, it is worthy of note that during 1910 and 1912, when hot and dry

weather was conspicuous by its absence, these diseases proved more fatal than in 1911, when surrounding districts were experiencing severe epidemics of diarrhœa with numerous deaths.' '*

ZYMOTIC DEATH-RATE.

The death-rate from zymotic diseases, including under that heading, according to the Registrar-General's classification, the seven principal ones, viz., small-pox, measles, scarlatina, diphtheria, fevers, whooping-cough, and diarrhœa, is considerably lower than it was in 1911.

In the following table comparative figures are given for the four quinquennial periods from 1889 to 1908, and for the past four years :—

DISTRICTS.		ZYMOTIC MORTALITY PER 1000 OF POPULATION.							
		5 Years 1889-1893.	5 Years 1894-1898.	5 Years 1899-1903.	5 Years 1904-1908.	1909.	1910.	1911.	1912.
Staffordshire	Combined Urban & Rural	1.73	2.15	1.80	1.48	1.59	0.94	2.25	1.02
	Urban	1.98	2.54	2.07	1.73	1.88	1.02	2.77	1.20
	Rural	1.30	1.44	1.28	0.88	0.82	0.74	1.10	0.64
England and Wales.....		2.13	2.09	1.87	1.55	1.12	0.99	...	...
Large Towns in England ...		2.74	2.77	2.40	1.95	1.42	1.23	...	...

It will be noticed that the rate for 1911 was exceptionally high, a fact which was explained by the excessive number of deaths from diarrhœa resulting from causes incidental to high summer temperature. The climatic conditions were more favourable from this point of view in the summer of 1912, hence the comparative freedom from diarrhœal deaths.

SPECIAL ZYMOTIC DEATH-RATE.

Small-pox.—Again the administrative county has been entirely free from small-pox. Sporadic cases of the disease, however, have occurred in different districts throughout England, and one anxiously scrutinizes the weekly returns

* It would appear that, when the report quoted from was presented, the General Purposes Committee of the District Council had the question of the adoption of the Notification of Births Act under consideration.

of infectious cases distributed by the Local Government Board in order to note any cases which may occur in proximity to the County. Judging from past experience, sooner or later, outbreaks will occur which will tax our resources to the utmost, having regard to the fact that the population is now so inadequately protected by vaccination.

Measles.—In the Administrative County, 207 deaths occurred from measles, as compared with 307 in 1911, equal to a rate per 1,000 of the population of 0·30, as against 0·46. Of these deaths, 187 occurred in the urban districts, or 0·40 per 1,000, and 20 in the rural districts, producing a rate of 0·09 per thousand.

In the following table corresponding figures are given for four quinquennial periods, and for the past four years :—

MEASLES.		5 years. 1889-1893.	5 years. 1894-1898.	5 years. 1899-1903.	5 years. 1904-1908.	1909.	1910.	1911.	1912.
Urban	Number of Deaths	195	239	188	211	424	111	290	187
	Rate per 1000.....	0·50	0·58	0·42	0·41	0·79	0·20	0·63	0·40
Rural	Number of Deaths	66	69	40	39	31	39	17	20
	Rate per 1000.....	0·29	0·30	0·17	0·19	0·15	0·18	0·08	0·09

The Medical Officer of Health of Bilston writes :—
 “ Measles is usually regarded as a simple disease of early childhood, whereas it has a serious mortality, is an important factor in the causation of deafness, and often predisposes to tuberculosis. It appears in regular epidemics though its mortality has declined in recent years.

“ It is a striking anomaly that the health of the children in the elementary schools seems of secondary importance to their regular attendance. This is due, apparently, to the rewards offered for long periods of regular attendance and the fixing of the Government payments to Education Committees on a basis of so much per child per attendance. The school attendance officer, forced by the Authorities employing him, who, in turn, are forced by the conditions under which they act, compel parents, usually by threats of proceedings, to

send children to school when they ought to be at home. The reasonable and proper method should be to count all absences through illness, or as the result of exclusion by the School Medical Officer, as attendances for both rewards and Government pay purposes."

Under this heading, the Medical Officer of Health of Brierley Hill writes:—"It cannot be too strongly impressed upon parents that this broncho-pneumonia following measles is one of the great predisposing causes of tuberculosis, and requires special care and watching for weeks after recovery from an attack of measles, but the children of the poor very seldom get any extra care."

Similar warning is given in the report of the Medical Officer of Health of Coseley as follows:—"It is a very fatal disease, and causes as many deaths as scarlet fever, diphtheria, typhoid fever, and small-pox all put together. An attack is often followed by chronic lung disease, and often consumption. It is, therefore, very necessary for the public to be made to realise its seriousness. In overcrowded back-to-back houses its proper treatment is impossible, and isolation of such cases in hospital would result in a saving of life."

In Darlaston 26 deaths resulted from measles and the epidemic is said to have been of a most virulent type accompanied by pneumonia.

The Medical Officer of Health of Leek Urban District writes:—"We have experienced a prolonged epidemic of measles for which it has been necessary to close several of the schools for varying periods, and though the disease has generally been mild I have to record nine deaths, mostly attributed to broncho-pneumonia. We have repeatedly, by handbills and reports in the local Press, warned parents of the grave consequences following measles, but it is a most difficult matter to impress this point; if its name could be altered to 'fever,' if all cases were notified and could be isolated, more attention would be paid to its fatal possibilities.

"If we take this year's experience we have nine times as many deaths as occurred from either scarlet fever or diphtheria, and this is a fairly typical experience.

“ In my opinion the abolition of the three to five years of age attendance at school would have a marked effect on the mortality rate of both measles and whooping-cough.”

Among other districts where the disease seems to have been prevalent, may be mentioned the urban districts of Rowley Regis, Rugeley, Smallthorne, and Tettenhall.

The District Council of Tettenhall seem to adopt a strange procedure in dealing with outbreaks of this disease so far as school attendance is concerned. Disregarding the views of their Medical Officer of Health, they seem to have *directed* him to take a certain course under certain circumstances. Of course, as a District Council, they can, upon the advice of their Medical Officer of Health, order the closure of a school, but I have never previously met with a case in which the Sanitary Authority of a district ventured to direct their medical adviser as to what recommendations he shall make to them. They, of course, have a perfect right to disregard any advice he may give them, but to dictate to him what he shall advise seems to be entirely outside their sphere.

Scarlet Fever.—In the Administrative County, 30 deaths occurred from scarlet fever, as compared with 54 in 1911, equal to a rate per 1,000 of the population of 0·04, as compared with 0·08. Of these deaths, 25 occurred in the urban districts, or 0·05 per 1,000, and 5 in the rural districts, producing a rate of 0·02 per 1,000. In the following table corresponding figures are given for four quinquennial periods, and for the past four years :—

SCARLET FEVER.		5 years. 1889-1893.	5 years. 1894-1898.	5 years. 1899-1903.	5 years. 1904-1908.	1909.	1910.	1911.	1912.
Urban	(Number of Deaths	76	95	87	56	66	48	45	25
	(Rate per 1000.....	0·19	0·23	0·19	0·11	0·12	0·09	0·09	0·05
Rural	(Number of Deaths	39	37	36	16	11	21	9	5
	(Rate per 1000.....	0·17	0·16	0·15	0·08	0·05	0·09	0·04	0·02

With reference to what is known as the "Milne" treatment of scarlet fever as a substitute for hospital isolation, I quote the following from the reports of the Medical Officers of Health of Brownhills and Cannock Urban district respectively.

In the report of the former the following appears :—" At my suggestion the Council have very kindly agreed to keep a supply of eucalyptus oil for scarlet fever cases, and to allow any medical practitioner in the district to make use of it if he so desires.

" Personally, I am convinced that the sponging of the entire body with eucalyptus oil is a valuable help in preventing the spread of the disease in a family, if, at the same time, the throat and nose are properly attended to. Especially is it useful in those cases where the family is a large one, and where it is quite impossible to keep the others apart from the affected person."

The Medical Officer of Health of Cannock Urban District writes :—" In May last I made an inquiry into the results of Dr. Milne's home treatment and prevention of scarlet fever at the request of the Council, emanating in the first instance from a suggestion of one of your members, Mr. A. Whitehouse, and I have been so strongly impressed by the strikingly successful results obtained by this method of treatment and prevention, both at the hospital of Dr. Barnardo's Homes, under Dr. Milne's care, and in the borough of Nuneaton, under the superintendence of Dr. V. Gray-Maitland, the Medical Officer of Health, that I recommended a year's trial of the treatment. This recommendation was further strengthened by the additional information I obtained of the success of the treatment in the burgh of Clyde-bank, under the supervision of Dr. Strang, the Medical Officer of Health.

" If a year's trial of this special method of treatment and prevention in this district should prove equally successful it would mean less outlay incurred in the building of a hospital for general infectious disease, because with regard to scarlet fever, accommodation would be limited only to the reception of certain special cases, such as in milk shops, or amongst outworkers, or expectant mothers.

“ The ‘ Milne ’ treatment is generally carried out absolutely irrespective of the number of inmates in the infected household, no secondary cases occurring apparently, especially if the case is taken in hand from the earliest sign of the disease. The question of isolation in such an event is of but little importance.

“ The treatment consists in rubbing the patient from head to foot, twice a day for the first four days with eucalyptus oil, then once a day until the tenth day of the disease, swabbing the throat, nose, and ears with 10 per cent. of carbolic oil, a milk diet, and rest in bed.

“ In the majority of cases patients are peeled in about three weeks, so that evidently under this treatment peeling is earlier than usual, and apparently with less profusion. Children have been sent back to school within three weeks of the onset of disease, with no ill results, which means that in the event of an epidemic there would be a considerable saving in Education grant, the customary period of exclusion of scarlatinal cases being from six to eight weeks.

“ For the smooth and effective working of this method of treatment it would be necessary to secure co-operation between the medical men of the district and the Medical Officer of Health, and also the adoption of the 1907 Public Health Amendment Act, so that by one of its provisions we can secure trained nursing, and thereby thoroughness of treatment. These nurses, say, two at a weekly salary of £1 10s. od. each, would report to the Medical Officer every morning, all cases being thus under direct observation, so that in the event of any complication arising in any patient the Medical Officer could communicate with the doctor who notified the case.

“ If scarlet fever can be practically stamped out in this way, it will be much better to spend money in other directions, for the isolation of such a disease as Phthisis, the death roll from which being larger than the combined death roll of all other notifiable diseases.”

While I have no desire to dispute the accuracy of the conclusions arrived at by the two Medical Officers of Health from whose reports I have just quoted, I would mention that

others have made similar enquiry regarding the treatment in question and have come to different conclusions regarding its efficacy. It is to be hoped, therefore, that the two District Councils interested will proceed cautiously and not come to the conclusion too readily that the treatment, as a preventive measure, is as efficacious as to some it may appear to be.

Diphtheria and Membranous Croup.—

In the Administrative County, 67 deaths occurred from diphtheria and membranous croup, as compared with 102 in 1911, equal to a rate per 1,000 of the population of 0·09, as against 0·15. Of these deaths, 47 occurred in the urban districts, or 0·10 per 1,000, and 20 in the rural districts, producing a rate of 0·09 per 1,000. In the following table corresponding figures are given for four quinquennial periods, and for the past four years :—

DIPHTHERIA.		5 years. 1889-1893.	5 years. 1894-1898.	5 years. 1899-1903.	5 years. 1904-1908.	1909.	1910.	1911.	1912.
Urban	{ Number of Deaths	16	79	91	84	62	54	65	47
	{ Rate per 1000.....	0·04	0·19	0·20	0·16	0·11	0·10	0·14	0·10
Rural	{ Number of Deaths	20	52	72	28	30	19	37	20
	{ Rate per 1000.....	0·09	0·23	0·31	0·14	0·15	0·08	0·18	0·09

In commenting upon 26 cases which occurred in Audley, the Medical Officer of Health states that in two houses where the disease occurred the cellars were found to be directly connected to the sewers.

It would appear from the report of the Medical Officer of Health of Quarry Bank that much attention has been given to the prevalence of the disease in that district, as the following quotation will show :—“ Last year I had to announce regretfully that diphtheria was greatly on the increase in Quarry Bank, and from Table III. it will be seen that the returns for 1912 still further exceed those of 1911. Moreover, not only are the cases more numerous, but they are attended with greater mortality, so much so, that diphtheria is now the gravest infectious disease with which we have to deal. It has centred

around the areas from which the High Street school children are drawn, and, curiously enough, principally from two quarters quite remote from each other, namely, Bower Lane and Birch Coppice. The following particulars relating to my investigations of the cases in Birch Coppice are worthy of consideration. First, the affected families lived in different parts of the Coppice, which district is distinctly rural in character. They had not been served with the same milk supply. They had not associated at home nor out of school. They attended the High Street Council Schools, but were not all in the same departments. There was a complaint of a stench arising from a gutter or brook which runs alongside and across the path leading from the Coppice to the High Street Schools. This gutter was very foul and was thought to be possibly responsible for the outbreak. Under your directions, this water-course was cleansed and disinfected on two occasions, and, finally, where nearest the thoroughfare, covered in, but in spite of this, sporadic cases have still arisen in the Birch Coppice.

“ A consideration of the schedule on page 16, will show how varied are the conditions associated with the occurrences, the only common factor of which appears to be attendance at the Council Schools. I have little hesitation, therefore, in attributing to this the continuance of the infection, but I am by no means clear as to the best way in which to effect a remedy. As already stated, I have examined the children from these schools, and taken specimens from the throats of every child complaining of a sore throat, the specimens being submitted to the Bacteriologist of the Birmingham University. . . .

“ Of these, 36 were taken at the schools, the remainder either at the homes or hospital. All cases showing positive results have been excluded from the school, and their homes, home surroundings, and contacts investigated. On July 23rd all children in the Birch Coppice were excluded from school until the end of the summer vacation. Seven cases were removed to the hospital, where they all recovered. Serum was used by the practitioners in several cases, being provided gratuitously by the Sanitary Authorities. In the fatal cases

the infection appears to have been so severe as to leave no time for this remedy to be introduced. In addition to the steps above mentioned, further preventive measures were taken at the patients' homes. Contacts were kept under observation and the premises disinfected at the conclusion of the illness. Antiseptic lozenges were supplied from the school to all children from infected areas. The lists of all doubtful absentees, supplied by head teachers, led to systematic enquiries as to the cause of absence. In one case exposure of a child was reported to the Council and the parents summoned to attend to explain their conduct."

Under this heading, the Medical Officer of Health of the Borough of Stafford writes:—"The deaths from diphtheria were both in children, for whom medical advice was not sought until the disease was so advanced that treatment could not possibly be of any avail. It is sad to realise that, in these days of widely disseminated knowledge of one of the prominent symptoms of diphtheria, there are still parents who do not look upon every case of sore throat as being serious enough to seek advice upon it from their doctor. If this practice were carried out we might look with confidence to the almost complete abolition of any death-rate from this disease. . . ."

Regarding anti-toxin treatment, the Medical Officer of Health of Tipton writes:—"I regret very much that a supply of diphtheritic anti-toxin cannot be gratuitously supplied to the medical men of the district. We can get the power to do so if we pay for the service, which would be trivial when compared with the benefit obtainable in many cases. Special arrangements are made at the Isolation Hospital for the treatment of diphtheria should a suitable case present itself."

The Medical Officer of Health of the Borough of Wednesbury writes:—"Sixteen cases were notified, and of these two were fatal. I have reason for thinking that the great value of anti-diphtheritic serum is not duly recognised by the profession. Of course, most of the cases in a town like Wednesbury occur amongst the very poor, but in all necessitous cases the serum can be obtained free of charge."

Under this heading, the Medical Officer of Health of Lichfield Rural District writes:—"Investigations with the object

of tracing the origin of the outbreak were not very successful. The sources of milk supply are so numerous as to make it impossible to attach much importance to this as a factor, while as regards the water supply, the Chase district, where the disease has been so persistent, is almost entirely supplied by the South Staffordshire Waterworks Company. From the number of very mild cases which are periodically discovered, I still hold the opinion that the trouble is chiefly due to undetected carriers. Another important question is 'When is a diphtheritic patient free from infection?' Whenever possible, two negatives are obtained, but usually we have to be contented with one. As it is by no means infrequent to find that the second swab is returned positive, although the first was negative, it may safely be inferred that a certain proportion of those from whom one only was obtained were still infectious. An experience which we recently had illustrates the danger of relying upon one negative swab. The patient was declared free and the premises disinfected, but three months afterwards a positive one was obtained from the throat of the same child. In order to minimise this risk, an extended period of quarantine is always recommended, but it is questionable if it is often observed.

"Although approximately 200 swabs were examined, only 29 were returned as positive, showing that this method has been extensively employed for the detection of carriers."

Whooping Cough.—In the Administrative County, 175 deaths occurred from whooping cough, as compared with 112 in 1911, equal to a rate per 1,000 of the population of 0.26, as against 0.16. Of these deaths, 131 occurred in urban districts, or 0.28 per 1,000, and 44 in rural districts, producing a rate of 0.21 per 1,000. In the following table corresponding figures are given for four quinquennial periods, and for the past four years:—

WHOOPING COUGH.		5 years. 1889-1893.	5 years. 1894-1898.	5 years. 1899-1903.	5 years. 1904-1908.	1909.	1910.	1911.	1912.
Urban	{ Number of deaths.	182	172	152	175	216	128	86	131
	{ Rate per 1000.....	0.47	0.42	0.34	0.34	0.40	0.24	0.18	0.28
Rural	{ Number of deaths.	52	54	44	42	63	34	26	44
	{ Rate per 1000.....	0.22	0.24	0.19	0.20	0.31	0.16	0.12	0.21

It will be seen that the fatality from this disease was considerably higher than in 1911; on the other hand, in that year it will be noticed that the rate was considerably lower than the mean.

Enteric Fever.—This disease, which must be looked upon as being entirely preventable, caused 29 deaths, as against 39 in 1911, equal to a rate of 0.04, as against 0.05. Of these, 22 occurred in urban and 7 in rural districts, equalling a rate per 1,000 of the population respectively of 0.04 and 0.03. In the following table corresponding figures are given for four quinquennial periods, and for the past four years :—

ENTERIC FEVER.		5 years. 1889-1893.	5 years. 1894-1898.	5 years. 1899-1903.	5 years. 1904-1908.	1909.	1910.	1911.	1912.
Urban	{ Number of deaths.	59	84	71	49	35	23	21	22
	{ Rate per 1000.....	0.15	0.20	0.16	0.09	0.06	0.05	0.04	0.04
Rural	{ Number of deaths.	29	19	22	6	8	11	18	7
	{ Rate per 1000.....	0.12	0.08	0.09	0.03	0.04	0.05	0.08	0.03

It will be seen from the above figures that the very gratifying and steady decline in the mortality from this disease which has taken place is still uninterrupted, and, if one may hazard a reason for this, the gradual abolition of privies and the substitution of water-closets, as well as the extension of public water supplies, must be given the greatest prominence.

Under this heading, the Medical Officer of Health of Amblecote writes :—“ Amblecote Council has had good reason for congratulation in the entire absence of this disease from

their district for a period extending over five years. It has been generally held that there is no better test of the efficiency of the sanitary administration of a district than the degree of prevalence of enteric fever. We have been unfortunate in getting two cases this year, one of which died. Both cases occurred within a few days of each other, and in the same locality, at Canal Street, where there had been a good deal of disturbance of the soil and some old drains, for the purpose of extending the deep drainage. One looks for the cause of this disease in some food that has become polluted and allowed the bacillus to gain access, but in this case careful investigation did not reveal anything of that kind. It is possible that the disturbance of soil, which had been foul for years, may have had something to do with it. It is not a healthy locality, low lying, between the river and the canal, but the putting in of the deep drainage has been a great improvement."

The Medical Officer of Health of Brierley Hill writes :—
" It is very satisfactory to be able to report the absence of this disease from the notifications for the year. It is, in fact, I believe, gradually dying out in Brierley Hill. I attribute this improvement chiefly to the fact that practically all the wells have been closed. There is also the provision of dust bins and gradual removal of the old privy-midden, from which we may expect still greater improvement."

The Medical Officer of Health of Coseley writes :—" Two cases only of this disease were reported during the year, and both recovered. There was no apparent connection between the two. One occurred at premises used as a shop at which articles of food are sold, and the other was in the person of a young man who worked as a miner. The house and sanitary accommodation was very bad, the closet swarming with flies. On the representation of the County Medical Officer as to the need of isolation in this case, your Chairman authorised his removal to Tipton Isolation Hospital. The Tipton Authorities, as a rule, object to taking cases from outside their district, and there was consequently delay in removal. Provision of means of isolation is quite as necessary for this disease as for scarlet fever."

The Medical Officer of Health of Quarry Bank states that only three cases of enteric fever have been reported during the past six years, and he attributes this satisfactory state of affairs to the abolition of private wells. Further, he anticipates that when privies are entirely abolished nothing approaching an outbreak need be anticipated in the future.

The Medical Officer of Health of Wednesfield traced the origin of 28 cases to a private well which had been contaminated by soakage from a privy into which fœcal matter from a previously imported case had been discharged. It would appear from the same report that there are still 52 houses in the district unconnected with the public supply, and it is to be hoped that the occurrence of this outbreak will lead to the abolition of the few remaining private wells.

Diarrhœa and Enteritis.—In the Administrative County, 184 deaths occurred from diarrhœa and enteritis, compared with 890 in 1911, equal to a rate per 1,000 of the population of 0·27, as against 1·33. Of these deaths, 145 occurred in urban districts, or 0·31 per 1,000, and 39 in rural districts, producing a rate of 0·18 per 1,000. In the following table corresponding figures are given for four quinquennial periods and for the past four years :—

DIARRHŒA.		5 years. 1889-1893.	5 years. 1894-1898.	5 years. 1899-1903.	5 years. 1904-1908.	1909.	1910.	1911.*	1912.*
Urban	(Number of deaths	242	359	336	309	201	172	768	145
	(Rate per 1000.....	0·62	0·87	0·75	0·60	0·37	0·32	1·67	0·31
Rural	(Number of deaths	88	93	81	40	23	29	122	39
	(Rate per 1000.....	0·38	0·41	0·35	0·20	0·11	0·13	0·59	0·18

* Including enteritis.

It will be noticed that the figures for 1911 were phenomenally high, a fact which was accounted for by the high summer and autumn temperature and the low rainfall, conditions which were absent in 1912. In most of the reports reference is made to these causes as accounting for the remarkable difference in the figures for the past two years.

The Medical Officer of Health of Bilston, in which town only 14 deaths occurred compared with 61 the year before, writes:—"The cool wet summer undoubtedly favoured the non-production of epidemic diarrhœa, and was in marked contrast with the previous summer. In 1911 the amount of fatal diarrhœa throughout the country was greater than in any of the preceding ten years, due to the long and nearly tropical heat of the summer months."

With reference to the low mortality from diarrhœa in Darlaston in 1912, the Medical Officer of Health writes:—"The comparative coolness of the summer no doubt contributed to this result, but at the same time credit must be given to the improved sanitary condition of the district.

"The abolition of the privy midden system coupled with the use of dust bins are certain factors in the diminution of this dread disease, so fatal to infants.

"Early in July the usual notices were issued, warning parents and those in charge of children that diarrhœa was not a disease incidental to teething, but was an epidemic disease, frequently caused by flies, and advising that all milk and food should be covered up and kept in a cool place."

In commenting upon the fact that no deaths occurred from diarrhœa in Willenhall in 1912, the Medical Officer of Health says:—"The comparative coolness of the weather no doubt largely contributed to this result. Nevertheless, this is the first time since I became your Medical Officer of Health that there was no death from that cause, and I think I can fairly say that within that period there has been a very considerable improvement in the sanitary condition of the town. There were two deaths registered as due to enteritis, but it was only last year that the deaths of children from this cause were, for statistical purposes, included in the term diarrhœa. A leaflet of 'Hints to Mothers on the feeding and care of Infants' was drawn up by me and printed by order of the Council in the spring. As the Council has not adopted the Notification of Births Act and not appointed a lady health visitor, I suggested that the Registrar of Births should be asked to give a leaflet to each person registering the birth of a child; that all the midwives and monthly nurses should have

copies sent to them and asked to give them to the women they may attend *on the day* children were born ; and that the Queen's nurses would probably be willing to distribute a limited number in houses where there are newly-born children, to which they may have access, as the nurses of adults. The Registrar and others have, I understand, kindly complied with the wish of the Council."

Cholera.—No mention is made of this disease in any of the reports under review.

Erysipelas.—Little reference is made to this disease in any of the reports.

Puerperal Fever.—In the Administrative County, 20 deaths resulted from puerperal fever, compared with 23 in the previous year.

In referring to two cases which occurred in Brierley Hill, the Medical Officer of Health writes :—" Both of these were midwives' cases. In this instance both cases were attended by the same midwife. The notifications were sent on to the County Medical Officer, who administers the Act. I believe he sends a lady inspector to make enquiries. My practice has always been to give the midwife notice to cease attending cases at once, and until I am satisfied that it is safe for them to commence again, but they always seem to regard my action as *ultra vires*, and wait until they get notice from Stafford. In the meantime, if they do attend cases, mischief may be done. However, so far as I know, the system seems to work well, and I should say there is greater attention to personal cleanliness, and the mothers are consequently safer than they were before the Act was put into force."

With reference to the above quotation, I would point out that, no matter what steps may be taken by the Local Supervising Authority under the Midwives Act, the medical officer of health's authority is in no way curtailed, and, in fact, it is my invariable practice to inform midwives in whose practices such cases occur that they may not attend other cases of midwifery until the medical officer of health of the district gives them permission to do so.

Under this heading, the Medical Officer of Health of the Borough of Wednesbury writes :—" Three cases were notified, of which none proved fatal. This must be regarded as a wonderful record for a town like Wednesbury, where the births numbered well over 800."

The Medical Officer of Health of Leek Rural District writes :—" The Medical Officer of Health for the County investigated all such cases, and every precaution is taken to prevent the midwife returning to practice until she has been thoroughly disinfected. The rule of instructing the midwife to cease from attending cases for at least a fortnight after a case of puerperal fever is still adhered to."

Acute Poliomyelitis.—It will be seen from the table of infectious cases notified that seven cases of this disease occurred in the following districts :—City of Lichfield (3), Borough of Newcastle (1), Tipton (1), Borough of Wednesbury (1), and Tutbury Rural District (1). With the exception of the reports for the Borough of Newcastle and Tipton, no special reference is made to the cases.

The Medical Officer of Health of the Borough of Newcastle states, regarding the case which occurred in the Borough, that he failed to trace any source of infection. The child is still disabled, one leg being paralysed.

The Medical Officer of Health of Tipton writes :—No steps were taken in the case notified as Poliomyelitis. On investigation, I found that the illness had been six months previous to the report. The pathological results were evident, and the guardian of the child was seeking advice at one of the Birmingham hospitals for the child."

Cerebro-spinal Meningitis.—It will be noticed that five cases of this disease occurred in the following districts :—Bilston (3), City of Lichfield (1), and Gnosall Rural District (1). In the report for the last mentioned district only is any special reference made to the cases.

The Medical Officer of Health of Gnosall Rural District writes :—" A fatal case of this fortunately very rare disease occurred in my practice in Church Eaton in the month of

October, being the first that I have ever seen or heard of in the district. Though I was unable to obtain a *post-mortem* examination, the characteristic symptoms were, in my own opinion, and in that of a consultant who saw the case with me, so well marked that I considered it necessary to disinfect the house as soon as possible, and this was accordingly done by your sanitary inspector with formalin, and the mother undertook to boil the bed-clothes and wearing apparel."

Influenza.—It would appear from the reports under review that influenza again occurred in most parts of the County, chiefly in the early part of the year. Among the districts in which it seems to have been most prevalent may be mentioned Quarry Bank and Rowley Regis. The Medical Officer of Health of the last-named district writes :—" Eleven deaths from this disease have been registered during the year, nine of which occurred in the first quarter. These figures show a very considerable increase over those for the previous two years, which were one and two respectively.

" Influenza was very prevalent throughout the district, especially during the first two months. It was of a rather severe type, and in many cases complicated with diseases of the respiratory organs."

Diseases of the Respiratory Organs.—

Under this heading, which does not include phthisis, 1,724 deaths occurred, as compared with 1,580 in 1911.

None of the reports contain any remarks regarding these diseases which call for special reference.

Phthisis.—In many of the reports considerable prominence is given to the question of the causation and prevention of phthisis, from which disease no fewer than 554 deaths have resulted during the year.

The Medical Officer of Health of Brierley Hill writes :—" During the year 47 cases were notified. The result of my enquiries in each case were reported to the Sanitary Committee, with such observations and suggestions as appeared to me to be necessary. During the year I made 128 visits,

to ascertain whether the treatment and precautions were being carried out, with not altogether satisfactory results. As might have been expected, the result of the first year's notifications is to reveal a large number of chronic and advanced cases, for which little or nothing can be done in the direction of cure. Our efforts in these cases must be in the direction of prevention, by getting the patients to observe certain precautionary measures against the spread of the disease to other members of the community. To this end we have issued leaflets, provided sputum flasks and disinfectants, and endeavoured to get the patients to occupy a separate bedroom, with the windows permanently open. This latter precaution has not been obtainable in every case.

" The presence of good substantial shelters in a carefully selected and accessible position is one excellent method of giving them the opportunity to continue fresh air treatment.

" With regard to adequate food and clothing, an after-care committee or association seems to be indicated to deal with this question. It would not involve a great expense. If the Nursing Association would take it up, and obtain voluntary assistance, I think there is an excellent field of useful work open to them.

" The local Queen's nurse visits most of the cases, and keeps the temperature charts marked of the patients undergoing tuberculin treatment. The Council makes a contribution to the nursing fund."

The Medical Officer of Health of Brownhills writes:—
" The Council have now decided to supply tuberculin to the medical practitioners of the district, when the affected person is himself unable to afford the expense of this treatment.

" Under the new regulations every case of tuberculosis must be notified, and as each of these cases must be visited and extensive enquiries made, some other method than the present must be adopted for dealing with the additional work.

" I would suggest to you that you appoint a health visitor who will undertake this work, and the duties coming under the Notification of Births Act, shortly to be brought to your notice under the heading ' Infantile Mortality.' If a

trained nurse were appointed to undertake those most important duties, much of her time would be occupied ; but there are also several other matters in which she might, in her spare time, be able to assist the sanitary inspector and myself."

The Medical Officer of Health of Coseley writes :—" We must await the County scheme for tuberculosis treatment, with the determination to fulfil the duties which will be given to a District Council under it more efficiently than has been the case with many public health duties in the past.

" One at least of these functions will be to have houses put in a properly sanitary condition. What a waste of money there will be in training and treating patients in sanatoria, and then returning them to defective, overcrowded houses.

" Enquiry as to ' contacts ' was not overlooked, and questions were put as to the health of the other inmates in every case. This is a matter which will need close attention in the future, and now that all cases of tuberculosis are notifiable, will necessitate a deal of additional work, if proper records are kept of every case.

" Bacteriological investigation is provided free by the County Council.

" Additional staff should be provided for the purpose of these investigations, and for disinfection of infected premises. I have directed the Inspector of Nuisances as to disinfection of houses where deaths have occurred during the year."

Under this heading, the Medical Officer of Health of Darlaston also recommends the appointment of a health visitor.

The Medical Officer of Health of the City of Lichfield writes :—" All the cases are visited by the nurse specially appointed by your Committee, and by myself. Cards of instruction in management, cleanliness, hygiene, &c., are issued to all cases ; special sputum flasks, and thermometers and charts are provided ; and all the necessary steps are taken to ensure general sanitary conditions. Separate bed and bedroom where possible. Two hundred and six visits were paid by the nurses during the year."

The Medical Officer of Health of the Borough of Newcastle writes :—" While the machinery of administration of

' sanatorium benefit ' has been delegated to the County Councils and the County Boroughs, the work of prevention is still part of the functions of local authorities.

" As the preventive part of the function of a dispensary is the duty of the local authority, and the result of the examination of phthisis contacts is as important to the medical officer of health as the result of examination of diphtheria, it must be hoped that the institution of the dispensary system will not be long delayed.

" Considerable experience of the dispensary methods of prevention and treatment have impressed on me the importance of contact examination and early diagnosis, and it is to be trusted that this scourge of tuberculosis is on the way to its being checked, and that in time the waste of valuable life, with the economic loss to the family and the community involved, will be prevented."

With reference to the above quotation, I would point out that it is only the institutional part of the treatment (in sanatorium, hospital, or dispensary) that County Councils are responsible for if they select to undertake that responsibility; domiciliary treatment, which is included in " sanatorium benefit," is otherwise provided for.

The Medical Officer of Health of Quarry Bank writes:—
" The coming year (1913) will probably see the sanatorium benefits fully administered, including sanatoria for suitable cases, local dispensaries, and domiciliary treatment not only for insured persons, but also for those dependent upon them. There will probably be, outside this scheme, a number of cases amongst the very poor for whom the Guardians should make provision, so that practically every case of consumption will have legal recognition and treatment. There will remain to the Council to reduce in every possible way such conditions as tend to the development of the disease. These steps should include inspection of the dwellings, especially with regard to damp, deficient light and ventilation, overcrowding, supervision of milk and other food supplies, disinfection of infected houses after the removal of patients to a sanatorium, after change of habitation, or after death of the tubercular patient. The risks of personal infection should be fully emphasised by

means of literature and lectures. In the latter direction, I recently gave an address on consumption, and the Council has had printed cards and pamphlets giving instructions as to the risks of infection and the measures required for its evasion.

“ There are no special officers or visitors appointed to visit tubercular patients, the responsibility being placed upon the medical officer of health and the sanitary inspector. During the visits entailed, we have systematically enquired as to the health of other members of the family, and in two instances have discovered a second sufferer. It may be interesting to add to the statement already given that on February 1st, 1913, there came into force a Consolidating Order embodying all previous regulations as to notification of pulmonary tuberculosis and further enjoining on medical practitioners, school medical officers, and hospital authorities the notification of all other tubercular diseases, including those of bone, glands, skin, and internal organs.

“ If a full investigation follows on these notifications, it should be possible to determine the mode of access of the disease, and particularly in regard to tubercular abdominal diseases among young children, the much debated problem of milk infection should be capable of solution.”

The Medical Officer of Health of Sedgley writes :—“ In the near future the County authorities will place shelters at our disposal for suitable cases, and as this district is eminently suited for the out-door treatment of this disease I look for good results to follow. As far as possible we are doing all we can to better the surroundings of the victims by removing insanitary conditions, compelling owners to make their houses damp-proof, and teaching the patients themselves the value of cleanliness and fresh air. This Council has provided me with the necessary apparatus for testing the sputum of suspected phthisical patients for turbercle bacilli, and in most of the cases notified the diagnosis has been confirmed bacteriologically.”

The Medical Officer of Health of Tettenhall writes :—“ Six cases of phthisis were notified. I found that three of these were occupying the same bed with healthy persons, two

with their wives and one with his grandson. Although the practice was forbidden, it is difficult to prevent in the constrained accommodation of a cottage.

“ Both the married men were suffering from pulmonary and laryngeal phthisis. One is dead and the other is now in a sanatorium. A married woman, who was notified, sleeps with her husband, but she has no cough. I have no personal knowledge of the other two cases. One is in the private practice of the doctor who notifies, and the other a child at school whom I have been unable to find at home.

“ In each case directions are given as to the disposal of sputum and cough spray. The patient is encouraged to eat the best food he can get, and impressed with the fact that as he spends a third of his life in his bedroom he should keep his windows wide open and breathe as much fresh air as possible.”

With reference to the above quotation, care must be taken that the machinery for the preventive treatment of tuberculosis shall be so adjusted that such cases of overcrowding as are related will be impossible in the future.

The Medical Officer of Health of Wednesfield, in referring to six cases in his district which were sent to the Moxley Hospital, under the temporary scheme arranged for by the County Insurance Committee, publishes an interesting letter from one of the patients regarding his treatment there. The following extract from the report includes that letter:—“ Two of these I have interviewed as regards their treatment and progress, and they have both praised the Moxley Sanatorium in the highest manner, and from the third who still remains at Moxley, I received the following letter, which speaks for itself:—

“ SOUTH STAFFORDSHIRE JOINT HOSPITAL,

“ MOXLEY,

“ WEDNESBURY,

“ 15th February, 1913.

“ DEAR SIR,

“ I am pleased to say I feel much better, and that I have gained five pounds in weight since I have been here. I may say the place is alright and the food is good and nourishing. Of course, it is much different than it was

at first, the food is much better. I will give you the daily routine: Sunday, breakfast, 8-30, porridge, boiled ham, and coffee; dinner, 12-30, pork, vegetables, and rice or suet pudding; tea, 5-30, buns, bread and butter, jam or marmalade; supper, 8-30, milk or cocoa as one chooses, biscuits, a little cheese, and slice of bread and butter; bed at 9-30. Temperature taken twice a day, 7 a.m. and 7 p.m. Get up after 7 a.m., strip beds, wash and then have breakfast at 8-0 every morning except Sunday. After breakfast make beds and stand by with charts until seen by doctor, then he puts on charts what each patient has to do, some half, one, two or three miles, some work making paths, chopping, or trimming edges of grass round walks. At 11-15 one cup of milk each, hot; 11-30, lie flat on bed with blanket over us until 12-30. Bath twice a week, examination and weight taken every week.

“ We have porridge every morning, and bacon or cold boiled ham. Dinner, roast beef or mutton, or boiled beef or mutton, except Friday, and then we have fish and vegetables, either plaice or halibut, and pudding every day. We have different games, but the Committee are going to get us some more indoor games, and later on outdoor games, when the weather is fit. Sometimes we have tomatoes and celery for tea, and sometimes stewed rabbits for dinner.

“ I should like to have seen some of the letters which have been passing through the local papers, I would soon have answered them. But all that some people can do is to find fault with anything, but such people would be the last to do anything for the welfare of others; they would sooner hinder people by painting, or trying to paint, the black side of things. But as I said before, it is much different than it was at first. I believe they had cause to complain.”

The Medical Officer of Health of Cannock Rural District in referring to 52 cases of tuberculosis which were reported to him, writes:—“ I have personally visited and investigated each of these cases, directing my special attention to the

sanitary surroundings, the conditions of the houses, the provision for ventilation, and, where practicable, as much out of door treatment as possible."

The Medical Officer of Health of Leek Rural District writes:—" Only eight cases of pulmonary tuberculosis have been notified during the year. I do not believe that this represents the number of cases in the district, and have no doubt that the number will be largely increased within the current year. The fear of letting the patient know the nature of his malady, the uncertainty of diagnosis, the procrastination in reporting, as the medical man thinks there is no particular hurry until he forgets to report it, and in some cases the idea that another medical man has previously reported the cases, have all, I believe, led to the list being incomplete."

With reference to the scheme for the preventive treatment of tuberculosis, the Medical Officer of Health of Lichfield Rural District writes:—" In bringing into operation a great scheme of this nature time is required to get it into thorough working order. Up to the present 24 beds have been retained in the Small-pox Hospital at Moxley, and patients who cannot be accommodated there are sent to various sanatoria throughout the country where openings can be secured. Apart from this, domiciliary treatment is the only other form of treatment at present available. The Local Government Board have now framed an Order which very soon will come into operation, constituting a Joint Authority of representatives of the Administrative County and the County Boroughs of Wolverhampton and Dudley, who will take over the responsibility of providing institutional treatment for all tuberculosis subjects, and in the immediate future dispensary areas will be formed, tuberculosis officers appointed, and steps taken to erect a large central sanatorium. Connected with each dispensary centre there will, of course, be hospital accommodation available. The above statement of present and future arrangements is made on the authority of the County Medical Officer.

" The dispensary unit, from my point of view, is the most important part of the scheme, as by its means very early cases of pulmonary tuberculosis should be recognised, thus

enabling suitable treatment to be applied at a stage when there is every prospect of permanent good resulting. I think it is a fairly common experience with medical men that by the time the patients come under their observation the disease has made such progress that it is only in a minority of cases that anything can be hoped for beyond temporary benefit. The early recognition of phthisis is very difficult, and there must be numerous cases in which the medical attendant is unable to satisfy himself that there is sufficient evidence to warrant the diagnosis. Under these circumstances he will be able to avail himself of the services of the tuberculosis officer, who will be practically a specialist in this disease, and there can be no doubt that in consequence there will be a marked increase in the number of notifications.

“ Since the issue of my last annual report the scheme outlined therein of appointing district nurses to act as health visitors has become an accomplished fact, the nurses in Chase-town, Gentleshaw, Longdon, and Kings Bromley acting in their respective areas, and Miss Wheeley taking the remainder of the district. Each nurse has a list of patients whom she visits periodically, advising and assisting as far as circumstances permit.”

Ophthalmia Neonatorum.—In my last year's report I stated that to the extent of 70 per cent. of the population of the Administrative County this disease was compulsorily notifiable. During the year under review other District Councils have come into line, and it is really difficult to see why all should not do likewise. The cost involved is quite trivial, while it is impossible to exaggerate the good which is thus accomplished.

It will be seen from the tables at the end of this report that among the districts where the disease is notifiable 41 cases occurred, but I regret I cannot give a summary of the circumstances, or the result of the action taken, because, only in a few instances, which will presently be referred to, are any particulars given. If in future all the Medical Officers of Health in whose districts the disease is notifiable would be good enough to give a short account of any cases that are

notified, and, even when no cases occur, would shortly detail the nature of the machinery for dealing with them, it would be of great interest. During the year cases were notified in the following urban districts the reports for which do not set forth any particulars, namely, Brownhills, Cannock, Tettenhall, and Uttoxeter.

The Medical Officer of Health of Bilston writes :—" The compulsory notification of inflammation of the eyes of infants newly born was adopted, on my recommendation, and came into operation on November 4th, 1910. Eight cases were notified during the past year. No arrangement has been made for medical treatment or nursing of any case, though this certainly is necessary in order to prevent possible permanent blindness in infants."

In Darlaston one case was notified, and it appears that the family were removed to the workhouse, the home conditions not admitting of proper treatment of the case.

The Medical Officer of Health of Leek Urban District quotes from the report of the Health Visitor, as follows :—" There have been eight cases of ophthalmia among the babies born this year. These have been visited four and five times daily, and in seven cases a perfectly satisfactory recovery resulted. The eighth case, I much regret to record, has resulted in partial, it not total, blindness. In addition there has been a number of suspicious cases which were visited twice daily, but these yielding to treatment speedily cleared up." With reference to the case which terminated unfavourably, I have made special enquiries, and find that the case was medically treated from the first.

In the Borough of Newcastle two cases were notified and both were successfully treated. For the information of those Authorities who do not make provision for dealing with the cases I quote the following from the report of the Medical Officer of Health :—" The means adopted in 1910 of providing registered midwives with vouchers, which they fill up and send to any practitioner within the borough,—the voucher being redeemed by the Corporation for 21s.,—has continued to work well. And the ensurance of prompt medical attention is not only of great benefit to the affected child, but means a saving in money

to the ratepayers in relieving them of the cost of maintenance and education of the blind."

During the year the disease has been made notifiable in Quarry Bank and Smallthorne, but no mention is made in either report as to what machinery has been provided for dealing with the cases.

The Medical Officer of Health of Short Heath writes:—"No case of ophthalmia of the newly-born came to my knowledge; but the Council arranged for me to treat any cases reported in which there was no doctor in attendance, with the consent of the mother, and to pay £1 per case—the arrangements being made under section 133 of the Public Health Act, 1875."

The Medical Officer of Health of Willenhall writes:—"One case of ophthalmia neonatorum was certified, and the Council has now decided that in cases of that kind 'medical assistance be provided in necessitous cases to be certified by the medical officer of health' and that the fee in each case shall be such sum which he may advise, not exceeding £1."

The Medical Officer of Health of Wolstanton writes:—"Two cases have been notified during the year, one in Wolstanton and one in Cross Heath (Silverdale). Both cases were promptly attended to, did not need any special nursing, and completely recovered."

The Medical Officer of Health of Gnosall Rural District writes:—"One case was notified in Gnosall and one in Church Eaton, and I treated these personally with the aid of the district nurses in attendance on the mothers, both of them making a good recovery."

ZYMOTIC DISEASE PREVENTION.

Isolation and Disinfection.—In most of the reports, both for urban and rural districts, this question is very fully dealt with. On the whole, the Administrative County is now fairly well provided with hospitals, although there are exceptions. As regards means for the disinfection of clothing and bedding, however, the position is not so satisfactory.

In the table at the end of this report, headed "Result of the Working of the Compulsory Notification of Infectious

Diseases Act," figures are given showing to what extent isolation hospitals are made use of in districts where they exist. It will be noticed that the use made of them varies very considerably, and in most cases it is evident that they can be of little practical value in curtailing epidemics—the chief purpose for which they are intended.

The percentage of infectious cases isolated in districts where hospitals are available, and have been available during the year, varies very much—from *nil* in Brierley Hill, Brownhills, Rowley Regis, Sedgley, Short Heath, Uttoxeter, and Willenhall Urban Districts, and Blore Heath and Mayfield Rural Districts, to 100 in Tettenhall Urban District and Tamworth Rural District respectively.

The Medical Officer of Health of Audley writes:—
“ During a part of the year we have had the use of the Bradwell Sanatorium under the Joint Hospital Board formed last year. At first some reluctance was shown by the people to use the hospital, and in one case a magistrate's order was obtained to compel the removal of a case of scarlet fever from a house where isolation was impossible. The satisfactory reports brought back from the hospital by patients on their return have led to a much greater willingness to use the hospital when necessary.”

The Medical Officer of Health of Bilston writes:—“ In November, affairs at the hospital were so urgent that it became incumbent upon me to report to your Council that the institution ‘ is much understaffed under present conditions, and steps should at once be taken to provide accommodation for at least two more nurses, and engaging the same. During this month as many as 22 cases have been under treatment at one time (there are 19 at this moment) and others have had to be refused because of the insufficiency of the nursing. The staff consists only of one nurse in addition to the matron, and two ordinary maid servants, and yet all the work—including the laundry—is done by them. There is no night nurse and no accommodation for one, and this has become an urgent necessity.’

“ As a result of this report I was authorised to engage, temporarily, another nurse, who, however, had to sleep away from the hospital ; and additional assistance in the laundry.

“ In my report for last year it was stated that ‘ a discharging block and an observation ward require to be added, as well as additional accommodation for the staff, which should be increased, and the laundry is much too small for its purpose.’ None of these structural requirements have been provided, and they are urgently necessary.”

The Medical Officer of Health of Rugeley writes :—
“ There is an isolation hospital for small-pox only, situated in a very exposed and inaccessible situation on Cannock Chase. I had hoped that your Council would have disposed of this building, as another and very suitable site is, I believe, available. The present building has very many disadvantages, and in the winter it would positively be an inhumane act to send a sick person to it. The water supply is precarious, as the well, though deep, does not reach any permanent water bed, and the situation of the building is so high and exposed that the winter rains are driven straight at the walls, which renders the building continuously damp in the winter.”

The Medical Officer of Health of the Borough of Stafford writes :—“ At the beginning of the year, terms were agreed upon to enable the Stafford Rural Authority to send their cases into the Borough Hospital for treatment, and the arrangement came into effect on April 1st. Plans have been approved for the erection of another block of six beds, and building will be at once proceeded with.”

The Medical Officer of Health of the Borough of Tamworth again urges the Joint Hospital Board to provide an observation ward at their hospital, and illustrates the need of this provision by the account of a circumstance which occurred as follows :—“ A child suffering from diphtheritic nasal paralysis developed chicken-pox eight days after admission, and one of the two other cases in this ward also took the disease. I have drawn attention in previous reports to the advantage it would be in the working of the hospital to have a small ward to be used as an observation ward, in such an instance as mentioned, or for the isolation of a case with regard to which there might be after admission some doubt as to its nature.”

The Medical Officer of Health of Wednesfield writes :—
“ In the near future the Council will have to seriously consider amalgamating with neighbouring authorities for the accommodation of infectious cases, if this was done much expense would be saved to all parties concerned.”

The Medical Officer of Health of Cheadle Rural District writes :—“ During the year a ‘ convalescent ’ block has been erected close to the scarlet fever pavilion, to which it is proposed to transfer the convalescent cases during the latter portion of their stay in hospital.

“ The ‘ convalescent ’ block has been so arranged that it will be possible to use it as a ward in case of epidemics.

“ The hospital is also provided with a large canvas tent which can be used in times of severe epidemic, and so used, it proved useful and quite efficient during an extensive epidemic of scarlet fever last year.”

The Medical Officer of Health of Gnosall Rural District, under the heading *Isolation and Disinfection*, writes :—
“ As I have repeatedly mentioned in my previous reports, we are working at a disadvantage when employed in trying to stop the spreading of infectious disease, as neither of these are fully provided for. Isolation hospital there is none, and although we disinfect the bedrooms to a certain extent, by spraying them with formalin, there is still no provision for thoroughly disinfecting bed-clothes and wearing apparel, so it is easy to see how that patients by going about again in infected clothing, after their own recovery, may be the means of starting fresh cases. It has been suggested that this difficulty should be met by combining with some other district, and the neighbouring district of Stone was approached on the matter, but the suggestion was dropped, as it was considered in the first place that their isolation hospital was so far away as to be exceedingly difficult of access from most parts of your district, and secondly that on comparing the cost with the number of cases that were likely to be sent in any one year, that the price was prohibitive if any other arrangement could be arrived at. With this I agree, as I am of opinion that it is most important that if at all possible an isolation hospital should be made easy to get at from all parts

of the district which it serves, and I also think that economy requires consideration so long as it is combined with efficiency. The hospital in question was described as palatial by one of the deputation sent by your Council to inspect it, and it seems to me that is not necessary to meet the needs of a population mainly resident in cottages in a rural district. We do not require a large and expensive building, and could provide for all our requirements either by erecting a small hospital of wood and iron, or of ferro concrete as now used in many parts of the country, or possibly by renting a house and fitting it up with a small number of beds, as the number of infectious cases has been shown by past experience not to be very large at any given time, and if effective isolation can be provided for early cases, the number will in future naturally tend to be still further lessened."

With reference to the adapted buildings which are used as an isolation hospital for the joint use of the Lichfield Urban and Rural Districts, the Medical Officer of Health of the latter district writes:—"The cottages which have only been used for diphtheria cases are clean and in good repair, the only criticism I have to offer being that the wards are insufficiently ventilated, this want of ventilation being in my opinion entirely responsible for Sister Bangham contracting diphtheria while engaged in the performance of her duties, and also for the nurse who previously had charge suffering from a hospital throat. As the buildings have been empty for the greater part of the year there has been ample opportunity for undertaking the necessary alterations.

"The hospital is under the control of a joint Committee of the Urban and Rural District Councils, and the beds are allocated in equal proportions between the two Authorities. A policy of give and take is, however, adopted, which gives a sufficient supply of beds as a general rule, and it rarely happens that patients have to be refused admission through want of accommodation. The number of beds available is 44, but I am of opinion this is more than the area of the wards justifies, at any rate until the ventilation has been improved."

Vaccination.—It is evident from the reports under review that the ease with which exemption certificates can

now be obtained has had serious consequences as regards the number of children who are protected against small-pox by vaccination.

The Medical Officer of Health of Cannock Urban District writes:—"The number of exemption certificates issued exceeds the number of children vaccinated by nine, and if we deduct the number of deaths and removals from the total number of births, the percentage of exemption certificates on the nett number of births has now reached nearly 53 per cent.

"Small-pox, when once it invades the district again, and attacks the unprotected, will run riot with such a pabulum to feed on, and the above figures constitute a very grave warning to the public."

The Medical Officer of Health of Leek Urban District writes:—"We cannot ignore the fact that there is a considerable opposition to vaccination, in spite of improved methods, vaccination performed at home, and the use of glycerinated lymph.

"The number of cases vaccinated is only 16.3 per cent., and the number of exemptions is 71.9 per cent. of the total number of births registered, which figures do not speak well for the safety of the community.

"As far as I am able to judge, vaccination is efficiently performed. It is, however, a matter of regret that the Act does not compel the private practitioner to vaccinate in four places as the public vaccinator is obliged to do. It would also, in my opinion, improve the efficiency of vaccination if the Government supplied lymph to all practitioners, inspected the work done and paid the fees."

The Medical Officer of Health of Quarry Bank gives the number of children vaccinated during the past seven years to show how rapidly the number of unvaccinated children is increasing. Taking the mean for the years given, it would appear that only 328 vaccinations took place among 1,605 children born, being only 20.4 per cent. The Medical Officer of Health says:—"I fear that sooner or later small-pox will teach the lesson, which seems at present forgotten, that vaccination is its only direct antidote."

The Medical Officer of Health of Rowley Regis, in referring to the vaccination returns for 1912, says:—"This return shows a steadily declining regard as to the necessity for vaccination which probably will result in a very rude awakening to the neglect of not securing the protection it affords, should an epidemic of small-pox occur."

In referring to the vaccination figures for the Borough of Stafford, the Medical Officer of Health says:—"Each year fewer children are receiving the protection afforded them by vaccination. The figures above show that in 1911 only 35 per cent. of the children were vaccinated, while 53 per cent. were 'exempted.'"

The Medical Officer of Health of the Borough of Wednesbury quotes figures for several years, and says:—"These figures show quite clearly the profound effect which resulted from the latitude allowed since 1906 to the so-called conscientious objector. The point has now been reached where the number of exemptions greatly exceeds the number of successful vaccinations, and if the present tendency is maintained, the number of vaccinated children will become very small.

"Judging by the experience of the past, serious outbreaks of small-pox must be looked for in the near future, and it behoves the Sanitary Authority to maintain their arrangements for isolation in readiness for dealing with the epidemic which is inevitable."

The above quotations are merely samples which may be said to apply, more or less, to all the districts.

INSANITARY DWELLINGS AND OVERCROWDING.

It would appear from the reports under review that the coming into operation of the Housing and Town Planning Act, 1909, has led to greater activity being displayed by many of the authorities in the direction of improving the housing conditions. In districts where systematic inspections are being made, good work is being done, and especially in those districts upon which I have reported to the Council in the course of the sanitary survey which is now in progress. In my next year's report I shall, no doubt, be in a position to

make more extended reference to the work accomplished in the districts which have been included in the County survey ; at present sufficient time has not elapsed to allow of comments being introduced into the reports relative to the outcome of the representations which the Public Health Committee of the County Council invariably make when the special reports, the outcome of the County survey, are forwarded to the authorities concerned. Having regard to the importance of this question, I propose to quote pretty fully from the reports, in order that members of authorities and others who are specially interested in the better housing of the people may see what is being done, and be able to form an opinion, from the views expressed, as to the difficulties which have to be overcome, and judge as to how they can best be surmounted.

As regards Biddulph, one of the districts which has been reported upon under the County survey, the Medical Officer of Health quotes extensively from the report under almost every heading. As the report, however, was only presented late in the year he, naturally, cannot yet point to any action which the District Council may have taken upon it.

The Medical Officer of Health of Darlaston writes :—
“ During the year systematic inspections have been carried out, chiefly in the districts where the older types of houses exist.

“ As the properties were inspected, detailed specifications were made out and submitted to the owners. As these were not complied with, the properties were dealt with under sections 15 or 17.

“ No difficulty has been experienced in getting owners to deal with their property, and in no instance has it been necessary to undertake the execution of repairs specified.

“ A total of 196 houses have been inspected and 128 specifications submitted. With the exception of six, all have received or are receiving attention.

“ During the year 128 fixed framed windows have been taken out and sash or open casement windows substituted, in many instances of larger area. Seventy-two insanitary quarry sinks have been abolished in favour of glazed earthenware ones.

“ Fourteen closing orders have been issued as compared with 23 in 1911.

“ No determining closing orders have been issued. Twenty-one houses, of which 19 have been dismantled, have been voluntarily closed. Forty-four demolition orders have been issued. Twenty-six cases of overcrowding have been dealt with, a large number of these being discovered as a result of house-to-house inspection.”

The following quotation from the report of the Medical Officer of Health of Heath Town, referring to the Housing and Town Planning Act, is of special interest, because that district was one of the earliest reported upon under the County survey, and it will be noticed that the Medical Officer of Health makes reference to that fact :—“ The powerful engine placed in our hands by this Act has been used with great vigour during the year. I have complained in previous years of over-cautiousness in the attitude of the Council, and many of my ‘ representations ’ have been unheeded. But this year you have formed a Housing Committee and have gone round yourselves and have seen that the pictures we have painted have not been too lurid. The inspector has spent a great deal of time upon this work, details of which will be presented in his section of the report. The inertia of years has been overcome and the machine is now steadily moving. As a result, many houses have been closed upon my representation. Some in bad repair or causing obstruction have been demolished. Others, again, that are hopelessly insanitary and all representations had hitherto failed to evoke a response, when the owners received a closing notice, and saw the object lesson of the demolition of neighbouring houses, the repairs have been forthwith put in hand.

“ This work has had special reference to Moseley Village. This is a detached village on the north side of the main road from Wolverhampton to Willenhall, a small triangle bounded by that road, Dean’s Road, and High Street, and its adjoining courts. The country around is very sparsely populated, and in some directions is quite open country for miles. But the little triangle itself is densely packed with irregular back courts without adequate breathing space, and the houses are

very old, small, small-roomed, dilapidated, and until recently with practically no drainage but open irregular gutters and natural tracks.

“ The place has been our despair in former years, the statutory notices have been ignored by the owners and not followed by more drastic measures. It has been a decaying village. Formerly the scene of busy activities, many collieries and blast furnaces, now these have all departed, and some of the old miners remain, but their work lies in pits in the Essington district, many miles away. There is one large hurdle works in the village, which employs many men, but this is the only local industry. The inspector states that hitherto all the dispossessed inhabitants have found fresh houses, and I have no doubt this will be the usual result, and I hope without any overcrowding. There have been no new buildings within this triangle, but there are comparatively new houses to the east and west along Willenhall Road.

“ The principle of our action has been that it is necessary to remove some of the houses in the densely congested areas, and to select for demolition those that were most obstructive and at the same time most insanitary. Much of the work has been already carried out, and when it has been completed, a great change will have taken place in the complexion of the village, and our critics of a little over a year ago will scarcely know their way about. I have asked the inspector to prepare a map of Moseley Village showing the alterations and demolitions for the year, and your Council have consented to have some copies prepared for attachment in the official copies of the report. This will show better than description the extensive character of the work.

“ Besides demolition, thorough ventilation has been insisted upon, and where the back of the premises abut on another property, with the owners of which no arrangements could be made, we have endeavoured to secure this by inserting skylights, with a touching faith that sometimes these skylights may be opened. In back-to-back houses, one or both set have been demolished.

“ Wooden, tumble-down houses, with defective water supply on Old Heath and other outlying parts, have been

demolished. In other areas such as New Street and Church Street, Grove Street and north end of Dean's Road, work is being done. The arch over entrance of New Street should be abolished. There are other houses between Prestwood Road and Bushbury Road and also in Bank Street and Wood Street, and the ever-running sore of the central part of Dean's Road that are unsatisfactory. I have inspected the whole of the slummy part of the district, some parts with great frequency and detail."

The Medical Officer of Health of the Borough of Newcastle writes:—"During the year 32 houses have been demolished. Five houses have been ordered to be altered or repaired satisfactorily, or closed as unfit for human habitation.

"A much-wanted improvement is under way in dealing with the area round Salter's Lane. This area will have to undergo considerable alteration in site levels, so that the means of access will be greatly improved, and the whole character of this part of the town, it is hoped, will be radically changed for the better.

"It is noticeable that, in old towns especially, there is always a very close grouping of houses together. This tradition, no doubt, goes back to the days when defence of home was of greater importance than mere sanitary conditions of the dwellings. In later times the larger number of rents obtained by the landlord by close grouping perpetuated the idea. Nowadays, the clearing out of an area means that any new scheme of building must bring in a less return financially—even if only free access to sunlight and circulation of air about the dwellings were to be insisted upon. . . .

"It is unfortunate that expenditure applied to the effort of improving the health of the citizens can never show a profit on paper. Nevertheless, public health work has its financial side in the saving of health to the worker, in giving him more years of useful employment, and often in the saving of the cost of keeping him or his dependants off the rates.

"It is regrettable, therefore, from the point of view of the town's prosperity, that in place of the houses closed and demolished during the year, only two new houses have been

built. The property that has been done away with has been practically all in use as housing accommodation for the working classes, and the lack of new house building as substitution provides a serious outlook if the borough is to prosper.

“ A continuance of this state of affairs means that the consideration of a Municipal Building Scheme cannot be much longer delayed, as, apart from the tendency to cause overcrowding that results, the prosperity of the borough depends largely on the housing provision for residential purposes.”

In Perry Barr it would seem that systematic inspection is being carried out and, apparently, a considerable amount of work has been accomplished.

The Medical Officer of Health of Rowley Regis writes :—
“ Of the 372 houses examined, more than half were found to be structurally defective or insanitary in some respect, and in 195 instances letters were written to the owners calling attention to these conditions.

“ In many cases detailed specifications of the works necessary to put houses into a thorough state of repair were supplied by the Sanitary Inspector, and, as a result, considerable improvements have been effected at a number of properties. A few owners, representing about 42 houses, have failed, so far, to comply with the Council's requirements, and at the close of the year these cases remained to be dealt with. . . .

“ The owners of small property in the district are numerous, and many of the houses in this class are under mortgage ; consequently, operations under the Housing Acts are fraught with difficulty and displeasure.”

The Medical Officer of Health of the Borough of Stafford writes :—“ In my last year's report I dealt at length with this question, which is a very pressing one for Stafford. If I have nothing to add to what I then wrote, it is because every step that has since been taken is perfectly well known to everybody, viz., the appeal by four ratepayers to the Local Government Board for an enquiry, the decision of the Town Council to erect 20 cottages in South Back Walls, the holding of a Public Enquiry into the housing conditions by a Local Government Board Inspector, the recommendation of the Board that sixty dwellings should be forthwith erected, and the adoption

of a scheme for the erecting of 60 houses by the Town Council. The rents to be charged are 10 at 3s. 9d. per week, 10 at 4s. 3d., 20 at 6s., and 20 at 7s. This is manifestly a compromise to meet the views of those who are anxious to re-house the slum-dwellers only, and those who would have the Municipality build also artizan's dwellings. Like all compromises, the scheme satisfies nobody. It would be dishonest of me to pretend that the allocation of only 20 cottages out of the sixty is sufficient to meet the requirements of the position as brought out in my report. True, a few tenants in the houses I have condemned may be able to afford 6s. a week, but for the vast majority even 4s. 3d. is too high a rent to pay. In my opinion this scheme which has just been adopted is touching only the fringe of the slum question, and as soon as these dwellings are erected it will be necessary to build as many more, but all of them cottages at a low rental. Until this is done the housing question will remain a pressing one."

The Medical Officer of Health of Stone Urban District writes regarding house accommodation:—"This is on the whole good and sufficient for the needs of the town.

"The work of house inspection under section 17 of the Housing, Town Planning, &c., Act has not proceeded as quickly as I should like, as your Sanitary Inspector has so many other duties to perform that he is unable to give the necessary time to this work. The question of giving him assistance to enable this work to be completed is now under your consideration."

The Medical Officer of Health of the Borough of Tamworth writes:—"There is a great need for more house accommodation for the working classes, but of late years very little building has been done in the borough to meet that want, and nothing at all during the past year, with the exception of some alterations and improvements to existing buildings.

"During the past five years not less than twenty old cottages have been demolished, and only ten new houses erected in this time. Those who cannot find a vacant house in the borough are obliged to live elsewhere outside the boundaries, and while this checks the growth in population

of the borough, it has also a tendency to increase the evil of overcrowding, especially among the poorer and the more improvident classes."

The Medical Officer of Health of Blore Heath Rural District states that there is still a shortage of good houses for the working classes. He also points out that no inspector has yet been appointed under the Housing and Town Planning Act. I would point out, however, that there is no need for such special appointment beyond making arrangements for the present sanitary inspector to do the work.

I quote the following from the report of the Sanitary Inspector of Cannock Rural District, which is embodied in that of the Medical Officer of Health, in order to show the good which results from the machinery for linking up the work of school medical inspection and public health work:—
"During the year I received through Dr. Hosegood complaints from Dr. Reid, County Medical Officer of Health, of 12 cases of children attending school with verminous heads, uncleanness of persons, badly flea marked, &c., evidently indicative of bad home conditions. I found four of the houses overcrowded, and two had bedrooms overcrowded through wrong arrangement of beds and sleepers. Three houses were infested with fleas, and five houses were both very dirty and flea-infested. One house was quite clean. One house was dilapidated, and this I reported to the Council as unfit for human habitation, and a closing order was made, and the house has been demolished. I supplied liquid disinfectant to the tenants of the dirty houses, and I found on re-visiting a great improvement in the cleanliness of the premises, and in two cases I learnt from the schools that the condition of the children is very much improved."

The Medical Officer of Health of Cheadle Rural District writes:—"A large number of inspections and re-inspections have been made by the Council's officers in carrying out the provisions of this Act, and with a view to allowing the Council's Surveyor to be able to devote sufficient time to this important work the District Council appointed a whole-time assistant immediately the Act became operative.

“ The following figures show the work that has been done under this Act during 1912 :—

“ Number of houses inspected.. 456

“ Number of notices sent out .. 450

“ The work required has been done satisfactorily in 115 instances ; in 49 cases a portion of the work required has been done ; while in 18 cases the work is in course of completion.

“ The total number of houses where work is in hand following on notices sent out is 268, and these will be re-inspected.

“ In six cases houses have been closed by consent of the owners : these will not be re-occupied until put in proper repair, and in each instance repairs are being carried out in accordance with the notices that have been issued.

“ In the towns and villages an opportunity of getting rid of many of the large uncovered ashpits and replacing them by galvanized iron ashbins has been taken advantage of under the Housing and Town Planning Act. Comment on the unsanitary conditions brought about by ashpits was made in last year's report.

“ As stated in last year's report, the arrangements made by the District Council for the carrying out of this Act, include that the reports of the results of the inspections that have been made, together with the Medical Officer's recommendations thereon, shall in the first instance be laid before the Committee of the District Council appointed for the purpose, and after being considered by the Committee the same are laid before the whole Council, along with the Committee's decision, for approval.”

The Medical Officer of Health of Lichfield Rural District writes :—“ The systematic inspection of the district has been continued during the past year by myself and your Sanitary Inspector, and I think I may say without fear of contradiction that each succeeding year sees a substantial improvement in its sanitation, but owing to its extensive area it necessarily follows that some time must elapse before the sanitary condition of the whole of it can be thoroughly investigated. The attention of your officers has been directed chiefly to the more populous centres, as it is in these sections that insanitary

surroundings are most dangerous and where remedial measures are most urgently demanded."

Later in the same report the following paragraph appears :—“ The work under the ‘ Housing and Town Planning Act ’ is steadily going on, and if progress appears to be slow, it is due, in part at least, to the fact that only houses needing considerable alteration are inspected, a system which involves a greater expenditure of time than one which includes good as well as defective houses, as constant supervision is required in order to see that the structural alterations are properly carried out.”

The Medical Officer of Health of Seisdon Rural District writes :—“ The house-to-house inspection of all working class houses in the district has now been completed, parish by parish having been inspected. This work has been most systematically and efficiently carried out, and has produced most valuable results, as is self-evident in all parts of the district, though a considerable time must elapse before the later notices can be complied with.

“ One cannot but sympathise with small property owners, when one sees how largely many of the defects are ever recurrent and very frequently caused by carelessness and indifference on the part of the tenants. This year the large total of 1,439 houses were inspected, and 699 notices have been served in respect of 1,067 defects.”

The Medical Officer of Health of Stoke-on-Trent Rural District writes :—“ Dwelling-houses are being periodically inspected under the provisions of sub-section 1 of section 17 of the Housing and Town Planning Act, 1909, and enquiries are being conducted as regards the housing accommodation of the district in accordance with article 5 of the Housing (Inspection of District) Regulations, 1910. As the district is so scattered, however, the completion of the work will necessarily take some time before the whole area is covered. The defects discovered are principally of structural character, and no difficulty has been found in having the notices for structural alterations and repairs complied with by the owners or their agents. There were no houses unfit for habitation. No representations were made to the Council with a view to

closing orders, nor was it found necessary to make a closing order. There were 120 dwelling-houses defects in which were remedied without closing orders.

“ Cases of overcrowding, which are fortunately rare in our district, are successfully dealt with.

“ In many of the houses I have inspected I have noticed that, although the houses themselves are well built and structurally sound, it is the filthy conditions under which the inmates exist that is the principal fault, and in some instances their dirty modes of living and uncleanness as regards their personal habits and bedding, &c., are responsible for the conversion of an inherently sanitary dwelling-house into a veritable pigstye.

“ The ventilation in some of the cottage property is highly unsatisfactory. There is no access of fresh air into the houses unless the door is left open. The windows are so constructed that they are not meant to be opened, but steps are being taken towards the necessary alterations being made. I would earnestly urge upon your Council the advisability of supplanting the primitive conservancy system of disposing of excreta by adopting water-carriage wherever connection to the sewer is practicable. I would suggest that the privy middens should be abolished wherever possible and proper water closets substituted.”

With reference to the village of Stretton, in Tutbury Rural District, the Medical Officer of Health writes :—“ This village is in a most insanitary condition, and, as I reported to you some months ago, a system of house scavenging is urgently required, the refuse now being put on the gardens and allowed to lie in heaps, in some cases for months at a time. The pan closet system should be adopted, and frequent emptying of the pans insisted on. Some of the cottage property is in a bad condition, and as the Lichfield water is brought to the village, property owners should be compelled to lay it on in those houses where the present supply is contaminated.”

EXCREMENT AND REFUSE DISPOSAL.

I have called attention in my preliminary remarks to the satisfactory advance which has taken place in the system of

dealing with excrement and refuse in some districts. This subject has received considerable attention in my previous reports, but, as it is one of such supreme importance from a health point of view, I propose to notice, very fully, the paragraphs in the reports under review which deal with it.

In Amblecote it is said that water-carriage is now almost general, that the few remaining privies are being got rid of as rapidly as possible, and that dust-bins are being substituted for ashpits.

The Medical Officer of Health of Audley writes :—" It is the intention of the Council to again apply for power to adopt sections 39-42 of the Public Health Acts (Amendment) Act, 1907, so that after the completion of the new sewage scheme it will be possible to insist on the provision of flush water-closets in all new houses and also in all houses where re-construction of the closet becomes necessary.

" On account of this intention to substitute water-closets for other closets after the construction of the sewage works, the number of closets in which brick vaults have been replaced by earthenware vessels has been reduced to the lowest possible point. Wherever possible leaking vaults have been temporarily repaired so as to serve for a further short period."

The Medical Officer of Health of Biddulph writes :—" As stated on page 14, the peat-pail system is not so satisfactory to-day as it was 15 years ago. The County Medical Officer of Health points out in his report that money would be saved if a loan were taken up for the general establishment of the water-carriage system (pages 7-9). The Local Government Board is pressing the same advice upon local authorities everywhere. The Biddulph Council will be wise to consider the matter one of some urgency. Certainly as regards all new property built in the future, the water-carriage system must be the only one allowed ; and it would be well to strengthen the Surveyor's position by passing a formal resolution to that effect."

In Bilston the conversion of privies into water-closets has been effected to the extent of about half the town, and, it would appear from the following quotation from the report of the Medical Officer of Health, that the District Council are

proceeding fairly rapidly to effect the complete substitution :—

“ During the year the substitution of water-closets for foul and insanitary privies has been continued. Six hundred and thirty-five houses and eight factories and workshops have been provided with water-closets in place of filthy vaults, privy middens, and pans. A number of foul open ashpits have been abolished and replaced by covered ash-bins.”

The Medical Officer of Health of Darlaston writes :—

“ During the year 225 privy middens and cisterns have been abolished, compared with 194 in 1911, and 260 water-closets have been substituted—this creates a record. At this rate of progress two years should complete the conversion, except for 64 which cannot be connected.

“ No difficulty has been experienced in carrying out these alterations, and in no instance has it been necessary to have the work undertaken on behalf of the Council.”

The Medical Officer of Health of Heath Town writes :—

“ Until two years ago the normal type of closet in all but the newest houses was what was known locally as a ‘ dry ash closet,’ a privy of small dimensions with concrete floor and a side door, and into it the household ashes were supposed to be put to deodorise the excreta. Unfortunately, they seldom deserved the adjective ‘ dry,’ and were often very moist, and foul fluid escaped into the yards. Often there were no fires and therefore no ash, and often insufficient ash to accomplish its purpose. They were emptied once a fortnight, the contents emptied into wheelbarrows, and thrown on the streets and transferred into a leaky wooden cart. I have for long denounced this practice and advocated the use of portable bins instead of barrows, and the use of tumbler carts instead of wooden carts. The former practice has been now carried on in some (but not all) cases for over a year, and now you have sanctioned the use of a tumbler cart. Both of which will improve conditions, but I hope that soon the conservancy system will be a thing of the past. During the year there have been very many conversions into water-carriage system. At the beginning of the year there were water-closets, 193 ; waste water-closets, 763 ; small privies, 1,112 ; privy-middens, 7 ; pans, 7 ; at the end of the year there were water-closets,

251 ; waste water-closets, 969 ; small privies, 905 ; privy-middens, 4 ; pans, 0.

“ The inspector tells me that already the abolition of so many privies has very materially lightened the cost of scavenging. I hope that during the next year or two we may be able to report that the last privy or ash-closet has been abolished.

“ The use of galvanized bins for refuse and garbage has been much more frequent but the tendency has been to provide insufficient accommodation and for tenants to misuse them and also to litter their yard with garbage instead of putting it in the bins and replacing the lid.”

In the Leek Urban District it would appear that there are now only 90 privies remaining. This, so far as it goes, is satisfactory, but it is much to be regretted that the type of closet frequently substituted is not provided with a water flush, but has to be flushed by hand—a highly insanitary plan.

The Corporation of Lichfield are to be congratulated upon the fact that a refuse destructor is now being erected.

The Corporation of Newcastle are also to be congratulated on the following figures which I extract from the report of their Medical Officer of Health :—“ At the end of 1912 there were existing :—

“ Privies with fixed receptacles	..	249
“ Privies with moveable receptacles		68
“ Fresh-water closets	.. ..	3678
“ Waste-water closets	.. ..	60 ”

In Quarry Bank it would appear that the rate of progress in converting privies into water-closets is very slow, only 31 having been so converted during the year. There are still 627 privies in the district, and the Medical Officer of Health states that many are “ of a grossly bad type.”

The Medical Officer of Health of Rowley Regis writes :—“ Good progress is being maintained in the conversion of privy middens to the water-carriage system, and during the year a further three hundred and twenty water-closets were substituted. . . .

“ The work of scavenging the district is carried out under contract and supervised by the Sanitary Inspector and his

assistant. The refuse collected is deposited on ' tips ' remote from the centres of population, but as these become filled there will be considerable difficulty in procuring other suitable sites, and the question of providing a refuse destructor cannot now be much longer delayed. Probably in the course of a few years the whole of the conservancy system will be abolished in this district, and I believe the house refuse could then be more efficiently dealt with by the Council with such a plant."

The Medical Officer of Health of Stone Urban District writes :—" The question of the substitution of ash-bins for all existing ash-pits is one which deserves the serious consideration of your Council.

" The present ash-pits hold too much, are not emptied often enough—very often not completely—and the contents are deposited in the road until shovelled into the cart.

" Most of the cases of infectious disease occurring in the town are associated with open ash-pits, and I am sure that the removal of these in favour of ash-bins, which should be emptied once a week, would distinctly improve the sanitary condition of the town."

The Medical Officer of Health of Tettenhall calls attention to the slow rate of conversion, and hopes that progress will be more rapid in the future " as the lenience of the Council will be exhausted."

The Medical Officer of Health of Willenhall writes :—" The Council has decided to adopt Parts 2 to 9 inclusive of the Public Health Acts Amendment Act, 1907, but the sanction of the Local Government Board has not yet been given. I have on several previous occasions emphasised the necessity of adopting section 39 of the Act, which gives increased power to the Council to compel the substitution of water-closets for midden closets. In connection with this subject, the Local Government Board has just made enquiries as to the number of sanitary conveniences of each type in the district, and in his last annual report to the County Council Dr. Reid writes, ' Among the more pressing matters of sanitary reform may be mentioned the systematic abolition of midden closets . . . there is ample justification for special effort on the part of the County Council to bring about reform in this direction by

utilizing to the fullest extent the additional powers given them by the Housing and Town Planning Act. Local authorities can no longer justify inactivity in this direction by professing that the law does not enable them adequately to enforce the substitution of water-carriage for conservancy methods of excrement removal, for, by adopting certain clauses of the Public Health Acts Amendment Act, 1907, they can acquire the needful powers of compulsion.' The Council has not been inactive in the past in this direction, but it is quite clear it is intended they shall be more active in the near future.'

The Medical Officer of Health of Cannock Rural District writes :—' In Bushbury nearly all the houses connected to the sewers have water-closets, and the privy middens abolished and either covered ash-pits or bins provided.

' In Cheslyn Hay it has been found difficult to enforce water-closets, as for some time there was a scarcity in the water supply, but as this has so materially improved, there should be offered a good opportunity of enforcing more water-carriage.

' Brewood has only a few water-closets, the water supply being mainly from wells.

' In Essington a fair proportion of the houses connected to the sewers have water-closets.

' There will be a good prospect in this direction for Great Wyrley Parish, which is shortly to be sewered.'

The Medical Officer of Health of Lichfield Rural District writes :—' No real progress has yet been made as regards the disposal of refuse, but in consequence of a communication received from the County Council, I understand that the General Purposes Committee intend taking the matter into consideration at an early date. In the meantime, judging from personal observations, made in the course of my inspections, I should say there has been some improvement, as I have not seen so many huge accumulations as usual, but I fear this will only be temporary. While I cannot class the conditions as bad, there is unquestionably more refuse to be seen than is desirable, especially in the more thickly populated sections, where it is scarcely likely that any further improvement will take place until public scavenging is instituted.

“ I am pleased to say that the tip at Chasetown has been kept in better order, and a new one has been commenced at Chase Terrace some distance from the village.

“ The bye-laws require the occupier to remove all household refuse from the premises at least once every four weeks.”

The Medical Officer of Health of Seisdon Rural District writing regarding Wombourn, states that the conditions would be much improved if the removal of night-soil and refuse was arranged for by contract.

The Medical Officer of Health of Stone Rural District writes :—“ The question of refuse disposal in the larger villages deserves your serious consideration.

“ At present your contract is for the removal of night-soil, ashes, &c., from Hanford alone, while other large villages, *e.g.*, Trentham, Barlaston, and Eccleshall, have to cater for themselves, consequently ash-pits, privies, &c., are only emptied when full, or at the convenience of a friendly farmer.

“ I think the time has now come when you should undertake the scavenging of the whole district.”

The Medical Officer of Health of Walsall Rural District writes :—“ The replacing of insanitary and foul-smelling privy closets, which are frequently situated close to the back doors of dwellings, is still being carried out, and I am glad to say that the Council has backed up my efforts in this respect with much greater readiness than was the case some years ago. The tenants in all cases are greatly pleased with the change, which is also satisfactory from a landlord's point of view, as it causes the houses to let more readily.”

SEWERAGE AND SEWAGE DISPOSAL.

Through the initiative of the County Council, large sums of money have been spent in providing for the better disposal of the sewage of the various districts, and it is satisfactory to be able to report that, almost without exception, the works which have been provided have efficiently fulfilled their purpose. In my introduction to this report I have indicated, generally, the present position of the County in this respect, and to attempt to give a more detailed account of the situation would exceed the limits of a report of this

description. As the Council are aware, the question is continually before them in the reports of the Public Health Committee, and it must not be supposed, by those who are not members of the Council but to whom this report is sent, that the short reference to the question herein contained in any way represents either the vast amount of work which has been done or the labour which such work has entailed.

The question of sewerage and sewage disposal, although of the utmost importance from a health point of view, concerns the Surveyors of the various districts rather than the local Medical Officers of Health, and for this reason it does not, as a rule, receive very prominent mention in the reports under review, although most of the reports contain favourable comments upon the new works which have been provided, while in some others reference is made to the need for, or the prospective provision of, new works.

The Medical Officer of Health of Amblecote writes :—
“ The river Stour runs through part of the district, and has been subject to pollution from a few houses, lying low and close to the river. The difficulty of draining this part has now been overcome, and when the houses are all connected, I do not think there will be much to complain of.

“ The two parts of the district to which I directed attention in my previous reports, Vicarage Road and Lower High Street, have had the sewerage completed. The houses are now being connected. With the exception of one or two outlying parts, where the houses are few and scattered, the whole of the district is now completely sewered.”

The Medical Officer of Health of Audley writes :—“ A scheme has been prepared by Mr. Whitehead, of Cannock, for dealing with the sewage of the whole district. He suggests that the sewage shall all be brought to four points, at each of which works shall be constructed for dealing with it. The uneven nature of the parish makes it impossible to bring the sewage to a smaller number of outfalls without either constructing tunnels or using pumping plant. New sewers are to be provided for the whole district, the present sewers being used, where possible, for storm water.

“ In September, Mr. Whitehead was engaged as the engineer to carry out the work, and was instructed to prepare the necessary plans, sections, and quantities to be submitted to the Local Government Board for their approval.”

The Medical Officer of Health of Brierley Hill writes :—
“ The most outstanding sanitary work of the year has been the completion of the sewerage scheme, and the issuing of a contract for making the house connections. On reference to the Inspector’s report where the figures are given, it will be seen that very considerable progress has been made in this direction, at the same rate of progress the work should be completed well within the year. The most satisfactory point to be noted is that we have practically got rid of the pollution of the canal at Moor Lane, 715 out of the 966 houses discharging into the old filter beds have been diverted to the new sewer, and in a very short time the remainder will follow. All the more serious and chief sources of pollution have now been removed. I think the Council may be congratulated that they have at last been able to remove this long-standing grievance.”

Concerning the long-delayed sewerage scheme for Endon, the Medical Officer of Health of Leek Rural District writes :—
“ The Endon sewerage scheme, which has been so long on hand, may now be considered in a fair way of being launched, as the difficulty of coming to terms in reference to the requisite land is now being definitely settled by arbitration.”

The Medical Officer of Health of Seisdon Rural District states that the Local Government Board have approved the proposed sewerage scheme for Kinver, and that the work is now being carried out.

In the same report the Medical Officer of Health again recommends his Council to provide a sewerage scheme for Codsall, but in reply to a communication on that subject a little time ago the District Council, through their clerk, stated that such a scheme was not now necessary owing to certain work having been done, the nature of which he did not explain.

The Medical Officer of Health of Stone Rural District points out that the Eccleshall works are now in full working order; that arrangements have been made with the County Borough

of Stoke-on-Trent to receive into their sewers the sewage of Hanford; that the necessary work for connecting the sewers of Lightwood with the sewers of Longton is in progress; and that a sewerage scheme for Rough Close and Meir Heath is in course of preparation.

WATER-SUPPLY.

The following is a summary of the remarks with reference to water-supply in those districts where the subject receives most notice in the reports. The Sanitary Committee of the County Council have frequently had occasion to spur on authorities in districts where good public supplies are available, but where many old local wells, liable to pollution, are in use.

The County, as a whole, is well supplied with water. The two large companies, the Potteries Water Works Company and the South Staffordshire Water Works Company respectively, cover wide and populous areas, and outside these areas various local authorities have provided supplies of their own. It is chiefly in certain widely-scattered rural areas that any real difficulty now exists.

The Medical Officer of Health of Quarry Bank writes:—
“Of the 1,522 houses supplied by the water companies, those in Mearce Coppice have a very unsatisfactory service, the water having to be carried by hand from three hundred to four hundred yards from a stand pillar in the main road. Of the sixteen families in that hamlet, five preferred to rely on the well waters adjacent. Three of these are of considerable depth, but analysis showed that only one of them was reasonably free from evidence of contamination.

“Although, as was stated in my report for 1911, notice for the provision of a good and adequate water supply has been given, it has not yet been carried into effect, and the Council will be failing in its duty towards the residents so long as the present state of affairs is allowed to exist. This is also true as regards three houses at Dunn’s Bank. It will be seen that the district is exceptionally well served with water, as the supplies from both companies are constant and of good quality.”

The Medical Officer of Health of Cannock Rural District writes :—" A serious shortage of water led the Council to carefully consider the question of an auxiliary supply, and an agreement with the South Staffordshire Waterworks Company was executed for a supply of water to the Parish of Cheslyn Hay, the agreement only to be operative in the event of the company being required to supply water throughout the parish.

" A well has been sunk at Four Ashes for furnishing a supply of water to 12 houses. The total cost, amounting to £34 9s. 5d., has been apportioned amongst the various owners."

The Medical Officer of Health of Cheadle Rural District writes :—" In last year's report mention was made that a scheme for supplying Foxt with water had received the sanction of the Local Government Board. Since then this scheme has been carried out, which will effect a very great improvement in the condition of matters that has hitherto prevailed in that district.

" Formerly, the water flowed in an open surface channel through fields and by the road-side, and it was obviously contaminated by all kinds of filth.

" The water comes from some springs situated about a mile above the village of Foxt, and it is collected into a covered reservoir, whence it is conveyed into and through the village of Foxt in three-inch mains.

" The water is of excellent quality as shown by analysis, and is plentiful in amount, and the scheme promises to be self-supporting. About 80 houses at present are supplied from this source. The cost was about £800.

" Schemes are in hand for supplying Cauldon and Waterhouses, Ipstones, Werrington, Cellarhead, Wetley Rocks, and part of Cheddleton and the houses lying between these villages with water.

" A deep well pump has been fixed in the well at Moneystones near Oakamoor."

It would seem from the report of the Medical Officer of Health of Mayfield Rural District that a satisfactory public water-supply has been provided for Mayfield, and that plans are now before the Local Government Board of a scheme for supplying Waterhouses,

The Medical Officer of Health of Stafford Rural District writes:—"In consequence of the quality of the water and the distance it has to be carried in the Great Haywood and Colwich districts, I drew up a special report on this matter, which is still under consideration. Arrangements have been entered into with Lord Lichfield whereby certain houses that are in greatest need of a water-supply should be provided with water from his private main. This arrangement has been submitted to the Council, but at the time of writing nothing has been definitely settled."

Regarding the water-supply of the village of Eccleshall, the Medical Officer of Health of Stone Rural District writes:—"Samples of water taken from different wells in the village were submitted to the County Analyst for examination, and pronounced by him as being unfit for domestic use.

"The purity of the water obtained from the great majority of the wells in the village is, I am afraid, very doubtful.

"The necessity of providing a pure and constant supply deserves your serious consideration."

In the same report, regarding the water-supplies of Acton and Butterson, the following remarks appear:—"The only water-supply of Acton consists of a spring situated at the bottom of a steep, hilly field, some of the houses being situated some half-mile distant.

"The Butterson supply consists of an overflow from a well which discharges through a bank into the road; in the summer months this is reduced to a trickle, and the filling of a bucket becomes distinctly a matter of time.

"Neither of these supplies can be considered adequate for the needs of the inhabitants.

"A conference between the representatives of the owners of property and your Council has been held with a view to improving the supply, but at present without definite result."

DAIRIES, COWSHEDS, AND MILKSHOPS.

The work under the Dairies, Cowsheds, and Milkshops Order receives attention in most of the reports, but not that attention, I think, which the importance of the subject demands. Probably this arises from the fact that Medical

Officers of Health are discouraged by the meagre results of their previous representations, at any rate, the fact remains that little advance has been made in this branch of public health work.

In view of the reports of the Royal Commission on Tuberculosis, the last of which was published two years ago, the question of the milk supply, the importance of which has long been recognised by health officers, has come still more prominently to the front, and some means must be found of effecting a radical change in the present methods of production and distribution of milk in this County. Apart from the question of tuberculosis, it is an undoubted fact that milk, which should be the cleanest article of food consumed, is at present probably the dirtiest. There is no reason why this should be the case, but reform means increased cost of production, and if the public are to be supplied with a wholesome clean article they must be prepared to pay a higher price for it.

There is no need for incurring a large expenditure upon existing cowsheds in order to vastly improve their condition ; but in the first place it is essential that milk-producers should be induced to believe that there is no truth in the old tradition that cows should be kept in close stuffy sheds in order that they may yield a liberal supply of milk.

It is to be hoped that the long-delayed Milk Bill will soon become an Act of Parliament.

Regarding the milk supply of the City of Lichfield, the Medical Officer of Health writes :—“ Special attention is paid to the sanitary and hygienic conditions, ventilation, cubic space per cow (800 cubic feet), drainage, construction, and cleanliness.

“ Regulations have been issued to each owner of a dairy on a printed card, and special leaflets A and B (prepared by the Joint Committee on Milk of the National Health Society and the National League for Physical Education and Improvement) have been sent by your Council to each dairy owner and purveyor of milk in your district.

“ By order of your Council, the Sanitary Officers have power to take and send for special analysis samples of milk

at any time, and also to call in a veterinary surgeon in the case of any suspected disease in the cows."

The Medical Officer of Health of Quarry Bank writes:—"The dairies are uniformly clean and cool, fairly well ventilated, and, on the whole, reserved strictly for the purpose intended. The cowsheds are much below the standard one could desire. Some are wooden sheds with badly laid floors, and cleansing of the floors in many cases is conspicuously absent. The cows are healthy, practically always out of doors except during milking operations, but appear generally to be quite neglected so far as grooming is concerned. Conditions such as these tend to neutralise in the earliest stages all possible efforts to provide an unpolluted milk supply. Contrasted with this is the scrupulous cleanliness of the cans and utensils in which the milk is stored and purveyed. There has been no need to call in your veterinary surgeon. One case of milk fever was attended by a private veterinary surgeon. One cow also was slaughtered and was found to have a non-infectious disease.

"It is not intended to be construed from the above remarks that the milk of this district is any worse than that usually obtainable from other districts, but until the dairymen and milk sellers' consciences are stimulated, the risks, especially to infant life, cannot be readily ignored. Diarrhœa, possibly diphtheria and scarlet fever, and occasionally tubercular disease, is conveyed through the medium of milk. Milk is supplied from outside the district both in cans and as so-called sterilized milk, in glass bottles. No complaint as to these has been brought to my notice, but I have met with samples elsewhere of bottled milk which were certainly not sterile or wholesome."

The Medical Officer of Health of Tipton writes:—"As I have before remarked in several of my reports, some of the cowsheds are dirty, ill-ventilated, overcrowded, and hygienically unfit to be used for milch cows. There is so much prejudice experienced against ventilation that when cowsheds are provided with satisfactory ventilators they are not used. It is a fiction that pure air has the property of diminishing the milk supply. Some of the cowsheds have, however, been

built after more modern ideas. The cows are kept clean, and are milked in a cleanly manner. The utensils are also kept in a clean and tidy condition. As a rule, the retail milk shop-keepers keep their utensils clean, and keep to their rules."

SLAUGHTER-HOUSES.

Beyond mentioning the fact that slaughter-houses are regularly inspected, the reports do not contain any very striking comments calling for notice in this report.

Under this heading the Medical Officer of Health of Darlaston writes:—"Although every effort is made by the occupiers to keep them clean, still in some instances the premises are unsuited for the purpose for which they are intended, and I hope the time is not distant when a public slaughter-house will be provided."

Considerable attention seems to be paid to the meat supply in the Borough of Newcastle as the following extract from the report of the Medical Officer of Health indicates:—"With regard to the meat supply, visits are made at the time of slaughtering, as well as at irregular hours. There is no public abattoir in the borough.

"There are 16 private slaughter-houses in the borough, five being licensed and 12 registered.

"Three hundred and twenty visits of inspection were made during 1912. There is a considerable amount of supervision and the system is as efficient as it can be made under existing circumstances.

"The Inspector, who possesses the Meat Inspection Certificate, has, when required, the opinion of the Medical Officer or the Veterinary Inspector for support.

"During the year there were condemned and destroyed:—

Pigs	8		
Sheep	1		
Beef {	Carcase	1	Udders .. 2
	Fore quarters ..	3	Hearts .. 14
	Hind quarter ..	1	Lungs .. 3
	Heads	16	Spleens .. 21
	Livers	27	Bellies .. 20

"All the above were tuberculous.

“ In addition, 111 lbs. of bruised meat,
144 lbs. of bacon,
and 44 lbs. of codfish
were condemned and destroyed.

“ There were six prosecutions in respect of these, all being successful, the total fines amounting to £24 3s. 6d. The Inspector seized a live pig exposed for sale for food purposes and a fine of £5 with costs was imposed. This case was of importance, as successful seizure of live animals is comparatively rare.

“ There is little friction in Newcastle caused by this department of the work, as the butchers voluntarily send to have inspection made, where they are suspicious as to the condition.”

The Medical Officer of Health of Rugeley writes :—“ As I have mentioned in my quarterly reports, there are two slaughter-houses in this town that should not be allowed to be used any longer. They are very small and ill-ventilated, and much too close to, and too much surrounded by, adjacent dwellings. There seems to be no easy or ready way of dealing with them, and the occupiers are not willing to solve the difficulty by slaughtering elsewhere.”

BAKEHOUSES.

Most of the urban reports mention the fact that the bakehouses are regularly inspected, but few contain any observations under this heading which call for special notice.

As regards underground bakehouses, there appear to be very few in any of the districts of the Administrative County.

LODGING-HOUSES.

The remarks under this heading in the reports do not call for special notice.

FACTORIES AND WORKSHOPS.

Under this heading very little matter appears which calls for special mention.

OFFENSIVE TRADES.

This question does not receive very prominent notice in the reports under review.

BYE-LAWS AND ADOPTIVE ACTS.

In some districts the bye-laws in force are out of date, and in others no bye-laws have been adopted. It is most desirable that bye-laws in accordance with modern ideas should be in force in all districts.

As regards adoptive Acts, I have already given considerable space to the comments of Medical Officers of Health regarding the Notification of Births Act in dealing with the question of infant mortality; and as regards the Public Health Acts (Amendment) Act, 1907, it has similarly been referred to under the heading Excrement and Refuse Disposal.

I specially reported on this question two years ago, and as the outcome of that report, which was sent to the various district councils interested, the question of improved bye-laws, and the adoption of optional Acts has received considerable attention.

The Medical Officer of Health of Sedgley calls the attention of his Authority to the fact that the Notification of Births Act has not yet been adopted.

The Medical Officer of Health of Cannock Rural District writes:—"The Council referred to a Committee the question of the necessity of making bye-laws for new streets and buildings for those parishes in the district in which no bye-laws are in force."

The Medical Officer of Health of Lichfield Rural District writes:—"In both my previous annual reports I drew attention to the fact that the work of your sanitary officers was conducted almost entirely under the Public Health Act, 1875, and suggested that it would facilitate their labours if 'Infectious Diseases (Prevention) Act, 1890,' and secs. 23, 25, and 27 of Part 2, with secs. 34 to 46, 49, and 51 to 68, Part 3 of the 'Public Health Acts Amendment Act, 1907,' were adopted. I understood that the General Purposes Committee would consider the suitability or otherwise of these suggestions, but as far as I am aware nothing has been

done in the matter up to the present. In November last a letter was received from the County Council on the same subject, and I hope the Committee will now give the question the attention which in my opinion it deserves.*''

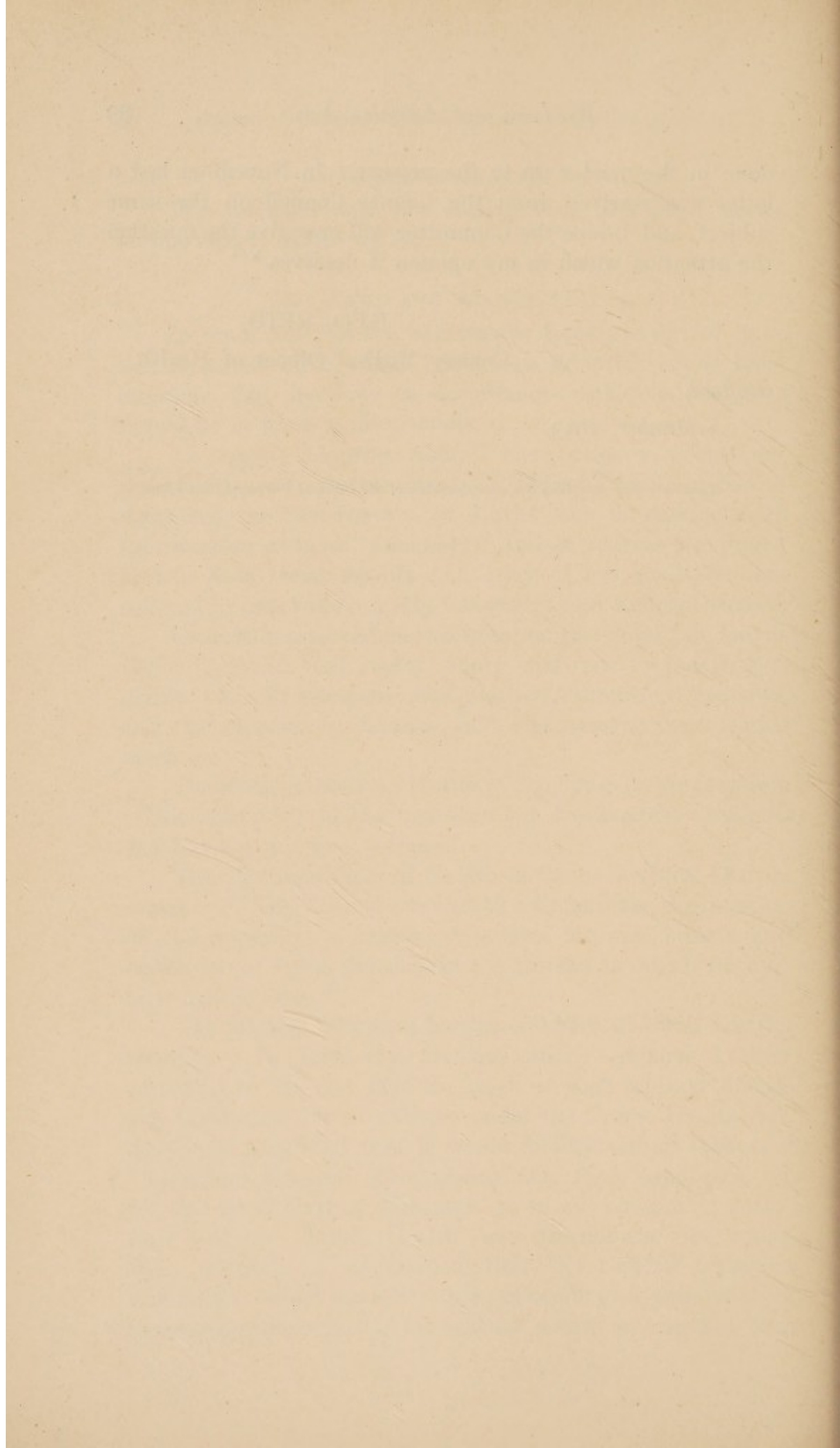
GEO. REID,

County Medical Officer of Health.

Stafford,

September, 1913.

* * These are now receiving the consideration of the General Purposes Committee."



GENERAL MORTALITY TABLES.

TABLES SHEWING THE RESULT OF WORKING
OF THE NOTIFICATION ACT.

NOTE.—In the following tables the individual zymotic mortality is given in order to indicate readily the class of disease that has mostly contributed to the gross rate. Apart from this, no accurate deductions can be drawn from such figures for one year only.

Table showing Population, Number of Persons per Acre, Birth and Death-rates, as well as the Death-rates at all ages and among Children under 1 year, and the Death-rates from Zymotic Diseases, Phthisis, Diseases of the Respiratory Organs, &c.

URBAN.

District.	Population at all ages.		Number of persons per acre.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Mortality in children under one year per 1000 registered births.	Zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.																
	Census, 1911.	Estimated to middle of 1912.						Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Enteric Fever.	Diarrhoea and Enteritis.										
Amblecote ..	3155	3155	4.7	21.5	12.9	44	0.95	..	0.31	0.31	..	..	0.31	0.31	0.95	0.63	0.63	0.95	1.58	0.31	..	0.31	0.63	..
Audley	14776	15000	1.8	30.2	12.9	81	1.66	..	0.46	0.26	..	..	0.26	0.06	0.53	0.86	0.86	1.13	0.33	0.20	..	..	0.26	0.46
Biddulph	7422	7543	1.3	29.9	14.1	110	1.06	..	0.26	..	0.13	0.13	..	0.13	0.53	1.32	0.13	0.79	1.59	..	..	0.13	..	1.45
Bilston	25631	25681	13.7	31.4	17.6	149	2.60	..	1.16	0.07	0.74	0.74	0.03	0.03	0.54	0.50	0.46	0.93	1.20	0.07	0.31	0.03	0.19	1.71
Brierley Hill..	12263	12294	12.1	26.4	14.9	135	1.05	..	0.73	..	..	..	0.08	..	0.24	0.56	0.40	0.97	1.46	..	..	..	0.65	1.95
Brownhills ..	16852	17068	2.7	32.2	15.4	128	2.81	..	1.52	..	0.64	0.64	0.52	0.05	0.05	0.64	0.58	0.58	1.17	1.58	0.05	0.11	0.23	1.93
Cannock	28586	29000	3.6	31.3	13.4	122	1.58	..	0.69	..	0.41	0.41	0.07	0.03	0.38	0.58	0.31	1.03	1.34	0.17	0.07	0.07	0.07	1.69
Coseley	22834	22250	5.9	25.9	13.9	102	1.39	..	0.67	0.09	0.22	0.22	0.04	0.04	0.31	0.76	0.31	0.44	1.52	0.80	0.04	0.13	0.22	1.12
Darlaston	17107	17363	19.0	31.9	17.2	144	2.70	..	1.49	0.05	0.63	0.63	0.05	0.11	0.34	0.51	0.51	0.92	2.01	2.36	0.11	0.05	0.17	1.84
Heath Town..	12276	12645	14.2	27.1	12.0	87	0.47	..	..	0.03	0.15	0.15	0.08	..	0.15	0.03	0.79	0.79	0.87	2.05	0.15	..	0.47	0.71
Kidsgrove....	9012	9295	2.9	28.5	13.6	94	1.39	..	0.96	..	0.21	0.21	..	0.21	..	0.96	0.10	0.75	2.58	0.21	..	0.21	0.21	0.32

Deaths occurring during the year 1912, classified according to Diseases, Ages, and Localities, together with Births occurring during the year.

URBAN.

[illegible]

URBAN—continued.

DISTRICT.	Population at all ages.		Number of persons per acre.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Mortality in children under one year per 1000 registered births.	Zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.							Phthisis.	Tuberculous Meningitis and other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Congenital Debility and Premature Birth.
	Census, 1911.	Esti- mated to middle of 1912.						Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Enteric Fever.	Diarrhoea and Enteritis.										
Leek	16663	16757	11.4	20.3	16.6	87	0.89	..	0.53	0.06	0.06	0.06	..	0.17	1.67	0.11	1.07	0.95	1.31	0.06	0.11	..	0.29	0.59
Lichfield.....	8616	8616	2.4	19.7	16.3	76	0.23	..	0.23	..	..	..	..	..	1.85	0.69	1.16	0.69	1.16	..	..	..	0.34	0.81
Newcastle ...	20201	20236	30.0	29.7	14.2	96	1.03	..	0.14	0.04	0.14	0.04	0.09	0.54	1.28	0.49	0.74	1.48	1.48	0.14	0.04	..	0.64	1.33
Perry Barr...	2403	2403	0.5	20.3	14.9	163	0.83	..	..	..	0.41	..	..	0.41	0.83	1.66	1.24	1.66	0.41	..	..	..	..	0.41
Quarry Bank..	7393	7458	11.2	29.4	15.1	118	1.34	..	..	..	..	0.67	..	0.67	0.67	..	0.26	2.14	2.41	..	0.26	..	0.13	1.60
Rowley Regis.	37000	37140	9.7	30.5	13.6	120	1.02	..	..	0.08	0.43	0.08	..	0.43	0.88	0.43	0.70	1.58	0.99	0.16	0.02	..	0.45	1.88
Rugeley.....	4504	4550	6.9	24.3	12.3	54	..	..	..	..	..	..	..	..	1.53	0.44	1.97	1.09	..	..	0.21	..	0.21	0.44
Sedgley.....	16527	16529	4.2	28.3	13.8	138	0.72	..	0.06	0.24	0.06	0.18	..	0.18	0.72	0.66	0.42	1.14	1.33	..	0.06	0.06	0.42	2.23
Short Heath..	4075	4131	3.9	34.6	14.0	83	0.24	..	..	..	0.24	..	..	..	0.48	..	0.48	1.45	0.48	..	..	..	0.48	1.93
Smallthorne..	13559	13816	5.1	32.7	12.9	116	1.08	..	0.43	..	0.21	0.07	..	0.36	1.23	0.14	0.50	1.30	1.51	0.14	0.07	..	..	1.80
Stafford	*21256	*22175	21.6	26.4	12.3	80	0.54	..	0.31	..	0.04	0.09	..	0.09	1.17	0.40	0.94	0.85	1.35	0.09	0.13	0.09	0.31	0.94
Stone	5688	5690	5.3	22.3	12.8	70	0.52	..	..	..	0.17	0.35	..	..	0.87	0.52	1.05	1.40	0.17	..	0.17	..	0.52	0.52
Tanworth....	7738	7796	27.4	22.0	15.0	104	1.28	..	0.25	..	0.89	..	..	0.13	1.02	0.25	1.53	1.41	0.64	..	0.25	0.13	0.25	0.64
Tettenhall....	5381	5389	3.5	17.4	14.2	95	0.74	..	..	..	0.37	0.18	0.18	..	0.74	0.74	1.29	1.11	0.74	..	0.37	0.18	0.74	0.74

* Excluding persons in Public Institutions not belonging to the Borough.

URBAN—continued.

DISTRICT.	Population at all ages.		Number of persons per acre.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Mortality in children under one year per 1000 registered births.	Zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.							Phthisis.	Tuberculous Meningitis and other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Congenital Debility and Malformation including Premature Birth.
	Census, 1911.	Esti- mated to middle of 1912.						Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Enteric Fever.	Diarrhoea and Enteritis.										
Tipton	31756	32000	14·7	35·7	15·3	112	1·06	..	0·03	..	0·18	..	0·09	0·75	0·62	0·46	0·84	1·31	1·09	0·09	0·06	..	0·21	2·06
Uttoxeter ...	5717	5650	5·4	27·9	17·3	101	0·53	0·35	..	..	..	0·35	..	0·17	1·06	0·88	1·41	0·88	0·70	0·17	..	0·35	1·41
Wednesbury ..	28103	28108	12·2	29·5	15·1	111	1·03	0·07	0·03	0·07	0·57	0·07	0·03	0·24	1·06	0·49	1·10	1·28	1·06	0·14	0·17	0·24	1·35	
Wednesfield ..	6483	6838	2·6	29·6	11·8	103	0·73	..	..	..	0·29	..	0·29	0·14	0·87	0·43	0·29	1·16	1·16	0·14	0·14	0·14	1·31
Willenhall ...	18844	19118	14·9	30·7	15·1	131	0·47	..	0·05	..	0·31	..	..	0·10	0·88	0·05	0·52	2·45	1·25	0·31	0·10	0·52	1·51
Wolstanton ..	27335	27928	5·1	29·0	13·2	100	0·93	..	0·32	0·10	0·03	..	0·07	0·39	0·57	0·71	1·07	0·75	1·14	0·21	0·03	0·14	0·93	
Totals and Averages .	459811	463622	5·6	29·0	14·4	112	1·20	0·10	0·40	0·05	0·28	0·10	0·04	0·31	0·91	0·41	0·81	1·43	1·19	0·11	0·09	0·03	0·29	1·39
95 large towns in England, average population.	..	185683	†	24·9	13·8	101	†	0·13	0·04	0·06	0·26	0·13	0·04	10·88†	†	†	†	†	†	†	†	†	†	†

* Excluding persons in Public Institutions not belonging to the Borough.
† Under two years; rate calculated to 1000 births (Corresponding Urban rate in Administrative County 8·08.)
‡ Not given in Registrar General's returns.

RURAL.

District.	Population at all ages.		Mean area per person in acres.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Mortality in children under one year per 1000 registered births.	Zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.							Phthisis.	Tuberculous Meningitis and other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Congenital Debility and Malformation, including Premature Birth.
	Census 1911.	Estimated to middle of 1912.						Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Enteric Fever.	Diarrhoea and Enteritis.										
Blore Heath...	2287	2305	5.9	22.9	15.6	37	Nil.	..	..	..	..	..	..	..	0.43	0.86	0.43	0.43	0.43	..	0.43	..	0.43	0.86
Cannock.....	19786	19850	2.6	26.0	13.4	98	0.25	..	..	0.05	0.10	0.05	0.05	..	0.35	0.20	0.65	1.70	1.00	0.10	0.05	..	0.25	1.20
Cheadle.....	26706	26706	2.0	20.2	10.5	88	0.44	..	..	..	0.18	0.11	..	0.15	0.74	0.52	0.71	0.89	0.59	..	0.03	..	0.18	0.89
Gnosall.....	4765	4765	6.0	21.6	15.5	48	0.41	..	..	..	0.41	..	..	..	0.20	0.20	2.09	1.67	1.25	..	0.41	..	0.83	0.41
Kingswinford.	20803	20808	0.2	26.9	17.2	149	1.29	..	0.48	..	0.29	0.09	..	0.43	1.00	0.38	1.05	2.01	1.58	0.04	0.38	..	0.28	1.63
Leek.....	15487	15755	4.4	23.4	12.7	108	0.82	..	0.12	0.06	0.25	0.19	..	0.19	0.50	0.31	0.57	0.50	1.01	0.12	0.06	..	0.25	1.58
Lichfield.....	*27718	*27980	2.4	24.2	11.9	91	1.07	..	0.25	..	0.35	0.14	..	0.32	0.57	0.35	0.82	1.42	1.14	0.03	0.10	..	0.14	1.28
Mayfield.....	3915	3915	6.2	20.4	15.5	62	0.51	..	..	..	0.51	..	..	..	1.78	0.76	1.53	1.78	1.27	..	..	..	0.51	..
Newcastle....	6410	6484	3.0	21.9	12.8	119	0.92	..	..	0.30	..	0.15	0.15	0.30	0.15	0.30	0.77	0.61	1.07	0.15	..	..	0.15	1.07
Seisdon.....	15074	15221	2.8	18.9	12.5	86	0.65	..	0.06	..	0.19	..	0.06	0.32	0.59	0.13	1.05	1.05	0.59	..	0.13	0.13	0.19	0.52
Stafford.....	11777	11950	4.7	25.1	10.7	49	0.16	..	..	..	..	..	0.08	0.08	0.16	0.16	0.92	0.75	0.66	..	0.08	..	0.08	0.75

* Excluding 1,000 Inmates of Burntwood Asylum

RURAL—continued.

DISTRICT.	Deaths from all causes.	Births.	Deaths from all causes at subjoined ages.										Enteric Fever.	Smallpox.	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 Typhilitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Puerperal Fever.	Other accidents & Diseases of Pregnancy & Parturition.	Congenital Debility and Malformation, including Premature Birth.	Violent Deaths, excluding Suicide.	Suicide.	Other Defined Diseases.	Diseases ill-defined or unknown.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
			Under 1 year.	1 & under 2 years.	2 & under 5 years.	5 & under 15 years.	15 & under 25 years.	25 & under 45 years.	45 & under 65 years.	65 and upwards.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Blore Heath...	53	36	2	1	1	1	2	1	9	19	1	3	..	1	..	2	1	7	1	1	1	1

RURAL—continued.

DISTRICT.	Population at all ages.		Mean area per person in acres.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Mortality in children under one year per 1000 registered births.	Zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.							Phthisis.	Tuberculous Meningitis and other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Congenital Debility and Malformation, including Premature Birth.
	Census 1911.	Esti- mated to middle of 1912.						Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Enteric Fever.	Diarrhoea and Enteritis.										
Stoke-on-Trent }	4774	4784	0.6	29.6	11.7	56	1.25	.	.	.	0.21	0.21	0.62	0.21	1.04	0.21	0.41	1.88	1.25	0.21	.	.	0.21	0.83
Stone	14337	14400	4.6	18.6	11.6	82	0.13	.	.	0.06	0.06	.	.	.	0.27	0.48	0.62	0.69	0.48	0.06	0.20	0.13	0.27	0.76
Tamworth... } Staffs. portion }	5113	5152	4.2	27.1	12.6	64	Nil.	.	.	.	.	.	.	.	0.19	0.38	1.55	1.55	0.58	.	0.38	.	0.19	0.77
Tutbury	3087	3087	2.8	20.7	14.4	132	0.44	.	.	.	.	0.33	.	0.11	0.88	0.55	1.10	1.21	0.55	.	0.33	.	0.22	1.65
Uttoxeter	8152	8150	5.8	19.8	10.9	67	0.12	.	.	.	.	.	.	0.12	0.85	.	0.73	0.49	0.61	.	0.12	.	0.24	0.61
Walsall	10991	11113	1.0	28.1	14.2	105	1.16	.	.	.	0.39	.	.	0.27	1.25	0.62	0.71	1.61	1.07	.	.	.	0.03	1.25
Totals and Averages }	207232	206525	2.9	23.2	12.8	95	0.64		0.09	0.02	0.21	0.09	0.03	0.18	0.63	0.35	0.85	1.21	0.91	0.04	0.13	0.02	0.22	1.07

RURAL—continued.

District	Deaths from all causes.	Deaths from all causes at subjoined ages.								Deaths from all causes.	Births.	Totals....
		Under 1 year.	1 & under 2 years.	2 & under 5 years.	5 & under 15 years.	15 & under 25 years.	25 & under 45 years.	45 & under 65 years.	65 and upwards.			
Stoke-on-Trent }	142	56	8	3	3	2	10	6	21	3	142	4850
Stone	263	168	22	4	3	8	12	44	71	..	263	4850
Tamworth } Staffs. portion }	140	65	9	..	2	..	3	7	18	26	140	4850
Tutbury	189	131	25	3	4	5	16	27	47	..	189	4850
Uttoxeter	162	89	11	1	2	3	3	18	48	..	162	4850
Walsall	313	158	33	11	9	2	24	25	49	..	313	4850

INFANTILE MORTALITY DURING THE YEAR 1912.

Nett Deaths from stated Causes at various ages under One Year of Age.

URBAN.

CAUSE OF DEATH.	URBAN.									Total. Deaths under One Year.
	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Mos.	
Small-pox ...	..	..	..	..	..	..	..	..	..	..
Chicken-pox ...	..	..	..	..	..	..	..	..	..	..
Measles ...	..	..	..	1	1	2	3	11	28	45
Scarlet Fever ...	..	..	..	..	..	1	1	..	2	4
Whooping Cough ..	..	..	..	1	1	11	14	15	12	53
Diphtheria and Croup ...	..	..	..	..	..	1	..	2	..	3
Erysipelas ...	..	1	..	..	1	1	1	..	..	3
Tuberculous Meningitis ..	1	..	..	..	1	1	1	5	1	9
Abdominal Tuberculosis ..	..	..	..	..	..	3	5	7	6	21
Other Tuberculous Diseases ..	..	..	1	..	1	5	4	4	3	17
Meningitis (<i>not Tuberculous</i>) ..	1	..	..	..	1	1	6	3	8	19
Convulsions ..	18	7	9	9	43	19	19	22	15	118
Laryngitis ..	..	..	..	..	..	..	..	..	..	..
Bronchitis ..	..	2	13	12	27	49	41	22	27	166

URBAN—continued.

CAUSE OF DEATH.	Under 1 Week.										Total under 4 Weeks.	4 Weeks and under 3 Months				3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Mos.	Total Deaths under One Year.
	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Mos.	Total Deaths under One Year.										
Pneumonia (all forms)	1	..	4	4	9	22	45	30	34	140									
{ Diarrhoea .. ..	..	..	..	2	2	16	9	2	6	35						
{ Enteritis	1	1	..	3	5	8	11	13	4	41									
Gastritis .. ..	..	..	..	..	..	3	6	2	2	13				
Syphilis .. ..	..	3	4	6	13	11	5	..	..	29						
Rickets .. ..	..	..	..	..	..	..	2	1	..	3			
Suffocation, overlying	6	1	1	2	10	9	6	*1	..	26									
Injury at Birth	8	..	..	..	8	1	..	..	..	9			
Atelectasis	14	3	1	3	21	1	..	..	..	22						
{ Congenital Malformations	10	4	7	3	24	6	1	1	1	33									
{ Premature Birth	208	20	19	9	256	12	1	..	..	269							
{ Atrophy, Debility and Marasmus	80	28	37	30	175	79	38	25	7	324									
Other Causes	17	5	7	5	34	24	19	20	14	111									
Totals..	365	75	103	90	633	286	238	186	170	1513									

* By food.

INFANTILE MORTALITY DURING THE YEAR 1912.

Nett Deaths from stated Causes at various ages under One Year of Age.

RURAL.

CAUSE OF DEATH.										Total Deaths under One Year.
	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Mns.	
Small-pox
Chicken-pox
Measles	1	3	4
Scarlet Fever	1	1
Whooping Cough..	1	1	4	7	3	6	21
Diphtheria and Croup	1	1
Erysipelas	1	..	..	..	1
Tuberculous Meningitis	1	3	..	3	7
Abdominal Tuberculosis..	1	2	..	..	3
Other Tuberculous Diseases	4	..	1	..	5
Meningitis (<i>not Tuberculous</i>)	1	2	1	1	5
Convulsions ..	4	3	2	1	10	2	3	4	1	20
Laryngitis	2	1	2	1	6
Bronchitis ..	2	..	1	2	5	13	9	7	1	35

RURAL—continued.

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Mns.	Total Deaths under One Year.
Pneumonia (all forms)	..	1	..	1	1	3	12	14	16	6	51
{ Diarrhoea ..	..	..	..	1	..	1	1	1	..	1	4
{ Enteritis ..	..	..	..	1	2	3	6	2	2	2	15
Gastritis ..	..	..	..	..	..	..	4	6	1	..	11
Syphilis ..	..	1	..	..	1	2	1	1	..	..	4
Rickets ..	..	..	..	..	..	..	..	..	1	..	1
Suffocation (overlying)	..	..	1	..	..	1	1	..	..	..	2
Injury at Birth ..	..	3	..	..	..	3	..	..	..	..	3
Atelectasis ..	..	5	1	1	..	7	..	..	..	..	7
{ Congenital Malformations ..	..	11	2	3	..	16	5	3	1	..	25
{ Premature Birth ..	..	68	9	8	1	86	7	2	..	..	95
{ Atrophy, Debility and Marasmus ..	..	41	15	15	6	77	20	11	5	2	115
Other Causes ..	..	3	2	..	..	5	5	4	4	2	20
Totals ..	..	139	33	33	15	220	91	71	49	31	462

URBAN—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.	Smallpox.	Scarlatina.	Diphtheria (including Membranous Croup).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phthisis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
BILSTON.* 25,681. 18/10 75.7.	Cases† Under 5 5 & upwards ..	24 59	1 7	.. ..	.. 4	.. ..	.. ..	.. ..	.. ..	15 ..	2 71	8		
Deaths	Under 5 5 & upwards ..	2 ..	1 ..	.. ..	.. 1	.. ..	.. ..	1 ..	.. ..	1 ..	1 23	.. ..	27 3	16 3
Cases treated in hos- pital	Under 5 5 & upwards ..	69 ..	1 ..	.. ..	2..	....	....	....	....	....	....	....	....	....
BRIERLEY HILL.* 12,294. 13/0. Nil.	Cases Under 5 5 & upwards ..	3 5	2 ..	.. ..	.. ..	.. ..	.. ..	2 ..	.. ..	6 ..	47			
Deaths	Under 5 5 & upwards ..	.. ..	1 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1 ..	12 ..	.. ..	4 5	
Cases treated in hos- pital	Under 5 5 & upwards ..	....	....	....	....	....	....	....	....	....	....	....	....	....
BROWNHILLS.* 17,063. 13/4. Nil.	Cases Under 5 5 & upwards ..	13 ..	32 ..	.. ..	1 ..	.. ..	.. ..	3 ..	.. ..	13 ..	29			
Deaths	Under 5 5 & upwards ..	.. ..	4 5	.. ..	1 ..	.. ..	.. ..	1 ..	.. ..	.. ..	10 ..	.. ..	26 11	
Cases treated in hos- pital	Under 5 5 & upwards ..	....	....	....	....	....	....	....	....	....	....	....	....	....
CANNOCK.* 29,000. 15/8. 3.4.	Cases Under 5 5 & upwards ..	27 43	10 ..	.. ..	7 ..	.. ..	.. ..	1 ..	.. ..	3 25	3 62	1		
Deaths	Under 5 5 & upwards ..	.. ..	2 ..	.. ..	1 ..	.. ..	.. ..	.. ..	.. ..	1 ..	30 ..	.. ..	20 12	
Cases treated in hos- pital	Under 5 5 & upwards ..	.. ..	.. ..	.. ..	3 ..	.. ..	.. ..	.. ..	.. ..	.. ..	9..	....	....	....

† Cerebro-spinal Meningitis, 3 cases.

URBAN—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.		Smallpox.	Scarlatina.	Diphtheria (including Membranous Croup).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phthisis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
COSELEY. 22,250. 10/7. Nil.	Cases	Under 5 ... 5 & upwards	8 20	1	..	2	..	..	..	..	1	2	..	..	..
	Deaths	Under 5 ... 5 & upwards	..	1	..	1	..	..	..	..	1	10	..	15	5
	Cases treated in hos- pital	Under 5 ... 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases	Under 5 ... 5 & upwards	10 17	1	..	6	1	..	1	..	3	2	1	..	..
DARLASTON.* 17,363. 15/11 5.7.	Deaths	Under 5 ... 5 & upwards	1	1	..	2	..	..	..	..	1	16	..	23	11
	Cases treated in hos- pital	Under 5 ... 5 & upwards	..	..	..	2	..	..	..	..	..	..	..	..	..
	Cases	Under 5 ... 5 & upwards	7 17	1	..	1	..	..	2	..	8	33	..	..	..
	Deaths	Under 5 ... 5 & upwards	1	1	..	..	..	..	..	..	..	10	..	..	2
HEATH TOWN.† 12,645. 15/0. 78.7.	Cases treated in hos- pital	Under 5 ... 5 & upwards	23	2	..	1	..	..	..	..	..	1	..	..	..
	Cases	Under 5 ... 5 & upwards	27	17	..	4	..	..	..	..	6	9	..	..	..
	Deaths	Under 5 ... 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	9	2
	Cases treated in hos- pital	Under 5 ... 5 & upwards	19	6	..	2	..	..	..	..	..	..	..	..	..
KIDSGROVE.‡ 9,295. 16/11. 56.2.	Cases	Under 5 ... 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..
	Deaths	Under 5 ... 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases treated in hos- pital	Under 5 ... 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases	Under 5 ... 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..

URBAN—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of cases treated in Hospital.		Smallpox.	Scarlatina.	Diphtheria (including Membranous Croup)	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phtisis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
LEEK.* 16,757. 14.3. 97.3.	Cases	Under 5 5 & upwards ..	7 18	2 10	..	..	..	..	3	..	12	42	2	..	..
	Deaths	Under 5 5 & upwards ..	1 ..	1 ..	..	..	..	..	..	..	..	1	..	9	1
	Cases treated in hos- pital	Under 5 5 & upwards ..	29 ..	7..	..	..	..	..	..	..	..	..	..	..	..
LICHFIELD.* 8,616. 17.8. 81.2.	Cases†	Under 5 5 & upwards ..	3 9	1 3	..	..	..	..	1	..	6	23	1	5	..
	Deaths	Under 5 5 & upwards ..	..	..	..	..	..	..	1	..	..	15	..	2	..
	Cases treated in hos- pital	Under 5 5 & upwards ..	11 ..	2..	..	..	..	..	..	..	..	..	..	..	..
NEWCASTLE.* 20,236. 10.1. 62.5.	Cases†	Under 5 5 & upwards ..	3 11	4 3	..	3	..	..	..	..	1	2	2	..	..
	Deaths	Under 5 5 & upwards ..	1 ..	1 ..	..	2	..	..	..	..	..	26	..	3	2
	Cases treated in hos- pital	Under 5 5 & upwards ..	9 ..	4 ..	..	2	..	..	..	..	..	..	..	..	1
PERRY BARR.* 2,403. 18.8. 54.5	Cases	Under 5 5 & upwards ..	1 7	3 ..	..	..	..	..	..	..	2	5	..	..	..
	Deaths	Under 5 5 & upwards ..	..	..	..	..	..	..	..	..	..	..	..	..	1
	Cases treated in hos- pital	Under 5 5 & upwards ..	6..	..	..	..	..	..	..	..	..	..	..	..	..

† Cerebro-spinal Meningitis, 1 case. Acute Poliomyelitis, 3 cases. ‡ Poliomyelitis, 1 case.

URBAN—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria (including Membranous Group).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phthisis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
QUARRY BANK.* 7,458. 14/9. 33·3.	Cases	Under 5 5 & upwards	..	4 7	3 13	..	..	..	..	1	..	5	8	1	2	
	Deaths	Under 5 5 & upwards	..	..	3	..	..	..	..	1	..	..	5	..	..
	Cases treated in hos- pital	Under 5 5 & upwards	..	2	7	..	..	..	..	..	..	..	..	..	..
	Cases	Under 5 5 & upwards	..	27 73	5 10	..	2	..	..	3	..	15	85	..	..
ROWLEY REGIS.* 37,140. 14/10. Nil.	Deaths	Under 5 5 & upwards	..	3	1	..	..	..	..	2	..	1	33	..	..	15
	Cases treated in hos- pital	Under 5 5 & upwards	..	..	2	..	..	..	..	..	..	..	..	..	..	1
	Cases	Under 5 5 & upwards	..	1	..	..	..	..	..	..	..	1	11	..	..
	Deaths	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	7	..	..
RUGELEY. 4,550. 7/1. Nil.	Cases treated in hos- pital	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..
	Deaths	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases treated in hos- pital	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..
SEDGLEY.* 16,529. £1 18s. 1d. Nil.	Cases	Under 5 5 & upwards	..	173	17	..	1	..	..	..	..	14	47	..	..
	Deaths	Under 5 5 & upwards	..	2	4	..	..	..	..	..	..	..	1	..	1	1
	Cases treated in hos- pital	Under 5 5 & upwards	..	2	..	..	..	..	..	..	..	..	11	..	..
	Cases	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..

URBAN—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria (including Membranous Croup).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phthisis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
SHORT HEATH.* 4,131. 13/10 Nil.	Cases	Under 5 5 & upwards	..	2 4	2	..	..	..	..	1	..	3	10	..	..	..
	Deaths	Under 5 5 & upwards	..	..	..	..	..	..	..	1	..	..	2	..	..	1
	Cases treated in hos- pital ..	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	1	..	..	..
	Cases	Under 5 5 & upwards	..	19 29	3 14	..	2	..	..	1	..	9	32	..	..	..
SMALLTHORNE.* 13,816. 19/4. 66·1.	Deaths	Under 5 5 & upwards	..	1	1	..	..	..	..	..	..	1	16	..	5	3
	Cases treated in hos- pital ..	Under 5 5 & upwards	..	37	5	..	1	..	..	..	..	..	..	..	..	..
	Cases	Under 5 5 & upwards	..	6 20	4 24	..	1	..	..	3	..	4	10	71	..	..
	Deaths	Under 5 5 & upwards	..	..	1	..	..	..	..	..	..	1	26	..	7	1
STAFFORD.* 22,175. 16/1. 83·6	Cases treated in hos- pital ..	Under 5 5 & upwards	..	26	19	..	1	..	..	..	..	..	..	..	..	..
	Cases	Under 5 5 & upwards	..	6 6	9	..	1	..	..	..	..	7	24	..	..	..
	Deaths	Under 5 5 & upwards	..	..	2	..	..	..	..	..	..	..	5	..	..	1
	Cases treated in hos- pital ..	Under 5 5 & upwards	..	6	5	..	1	..	..	..	..	..	..	..	..	..
STONE.* 5,690. £1 0s. 7d. 75·0.	Cases	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Deaths	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases treated in hos- pital ..	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..

URBA — continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria (including Membranous Group).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phtisis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
TAMWORTH.*	Cases ...	Under 5 ... 5 & upwards	..	3	..	..	1	..	..	..	..	4	6	..	..	..
7,796.	Deaths	Under 5 ... 5 & upwards	..	..	..	..	..	..	..	..	..	1	8	..	2	7
6/4.	Cases treated in hos- pital	Under 5 ... 5 & upwards	..	7	..	..	..	..	..	..	..	..	..	..	..	..
70.0.	Cases	Under 5 ... 5 & upwards	..	3	1	..	1	..	..	..	..	1	6	1	..	..
TETTENHALL.*	Deaths	Under 5 ... 5 & upwards	..	..	1	..	1	..	..	..	..	..	4	..	..	1
5,389.	Cases treated in hos- pital	Under 5 ... 5 & upwards	..	3	2	..	1	..	..	..	..	..	..	..	..	1
6/5	Cases	Under 5 ... 5 & upwards	..	37	6	..	11	..	..	..	..	2	1	..	..	..
100.0.	Deaths	Under 5 ... 5 & upwards	..	41	7	..	3	..	..	..	..	1	20	..	1	4
TIPTON.*	Cases treated in hos- pital	Under 5 ... 5 & upwards	..	56	..	..	2	..	..	..	..	..	..	..	..	2
32,000.	Cases	Under 5 ... 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15/1.	Deaths	Under 5 ... 5 & upwards	..	1	..	..	..	..	..	..	..	..	..	..	..	..
56.8.	Cases treated in hos- pital	Under 5 ... 5 & upwards	..	..	1	..	..	..	..	..	..	..	..	..	..	..
UTTOXETER.*	Deaths	Under 5 ... 5 & upwards	..	..	1	..	..	..	..	..	..	..	..	..	..	..
5,650.	Cases treated in hos- pital	Under 5 ... 5 & upwards	..	..	1	..	..	..	..	..	..	..	6	..	..	..
4/5.	Cases	Under 5 ... 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nil.	Cases treated in hos- pital	Under 5 ... 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..

† Poliomyelitis 1.

URBAN—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of cases treated in Hospital.		Smallpox.	Scarlatina.	Diphtheria (including Membranous Group)	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phthisis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
WEDNESBURY.* 28,108. 14/3. 3·5.	Cases†	Under 5 5 & upwards	10 24	3 13	.. ..	.. 6	.. ..	.. ..	.. 3	.. ..	2 20	2 66	11		
	Deaths	Under 5 5 & upwards . . . . .	.. 2	.. 1	.. 1	.. 1	.. ..	.. ..	.. ..	.. ..	1 ..	2 28	.. ..	1 1	14 2
	Cases treated in hos- pital	Under 5 5 & upwards . . . . .	.. ..	.. ..	.. ..	.. 2	....	....	....	....	....	....	....	....	....
	Cases	Under 5 5 & upwards	16 ..	1 ..	.. ..	5 23	.. ..	.. ..	.. ..	.. ..	2 13	1 13	..	..	..
WEDNESFIELD. 6,838. £1 2s. 3d. 60·0.	Deaths	Under 5 5 & upwards . . . . .	.. ..	.. ..	.. ..	.. 2	.. ..	.. ..	.. ..	.. ..	.. ..	1 5	.. ..	3 3	2 2
	Cases treated in hos- pital	Under 5 5 & upwards	1 ..	.. ..	.. ..	.. 25	....	....	....	....	....	....	....	....	....
	Cases	Under 5 5 & upwards	14 25	2 4	.. ..	.. 3	.. ..	.. ..	.. ..	.. ..	13 76	1 1	..	..	..
	Deaths	Under 5 5 & upwards . . . . .	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	17 ..	.. ..	1 ..	5 1
WILLENHALL.* 19,118. 18/- Nil.	Cases treated in hos- pital	Under 5 5 & upwards . . . . .	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	10..	....	....	....
	Cases	Under 5 5 & upwards	45 111	11 27	.. ..	.. 9	.. ..	.. ..	.. 2	.. ..	11 48	1 1	2..	....	....
	Deaths	Under 5 5 & upwards	2 1	.. ..	.. ..	.. 2	.. ..	.. ..	.. 2	.. ..	.. ..	16 ..	.. ..	7 2	1 2
	Cases treated in hos- pital	Under 5 5 & upwards	128 ..	26 ..	.. ..	.. 5	....	....	....	....	....	....	....	....	....
WOLSTANTON.* 27,928. £1 3s. 10d. 78·3	Cases	Under 5 5 & upwards . . . . .	....	....	....	....	....	....	....	....	....	....	....	....	....
	Deaths	Under 5 5 & upwards . . . . .	....	....	....	....	....	....	....	....	....	....	....	....	....
	Cases treated in hos- pital	Under 5 5 & upwards . . . . .	....	....	....	....	....	....	....	....	....	....	....	....	....
	Cases	Under 5 5 & upwards . . . . .	....	....	....	....	....	....	....	....	....	....	....	....	....

† Poliomyelitis, 1 case.

RURAL.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria (including Membranous Croup).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phthisis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
BLORE HEATH.* 2,305. 3/3. Nil.	Cases	Under 5 5 & upwards	..	..	2	..	..	..	..	..	..	..	1	..	..	..
	Deaths	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	1	..	..	..
	Cases treated in hos- pital	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases	Under 5 5 & upwards	..	13	1	..	2	..	..	1	..	2	11	3	..	..
CANNOCK.* 19,950. 17/- 98.5.	Deaths	Under 5 5 & upwards	..	1	1	..	1	..	..	..	..	..	1	..	..	..
	Cases treated in hos- pital	Under 5 5 & upwards	..	60	5	..	1	..	..	..	..	..	..	..	..	..
	Cases	Under 5 5 & upwards	..	46	22	..	13	..	..	2	..	5	40	..	..	..
	Deaths	Under 5 5 & upwards	..	..	3	..	..	..	..	2	..	..	20	..	..	5
CHEADLE.* 26,706. 11/11. 59.2.	Cases treated in hos- pital	Under 5 5 & upwards	..	46	1	..	1	..	..	..	..	..	..	..	..	..
	Cases	Under 5 5 & upwards	..	1	1	..	..	..	..	1	..	..	2	..	..	..
	Deaths	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases treated in hos- pital	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	2
GNOSALL. 4,765. 10d. Nil.	Cases	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Deaths	Under 5 5 & upwards	..	..	..	..	..	..	..	1	..	..	1	..	..	..
	Cases treated in hos- pital	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..

* Cerebro-spinal Meningitis, 1 case.

RURAL—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria (including Membranous Croup).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phthisis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
STONE.® 14,400. 11/1. 61·5.	Cases	Under 5 5 & upwards	..	29	10	..	..	..	..	1	..	4	20	..	..	..
	Deaths	Under 5 5 & upwards	..	1	..	..	..	..	..	..	..	..	..	..	..	1
	Cases treated in hos- pital	Under 5 5 & upwards	..	17	7	..	..	..	..	..	..	..	..	..	..	..
TAMWORTH.* 5,152. 5/4. 100·0.	Cases	Under 5 5 & upwards	..	3	4	..	..	..	..	..	..	1	2	..	..	..
	Deaths	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases treated in hos- pital	Under 5 5 & upwards	..	3	4	..	..	..	..	..	..	..	1	..	..	..
TUTBURY.* 9,087. 15/8. 82·3.	Cases†	Under 5 5 & upwards	..	6	2	..	1	..	..	..	..	5	7	..	..	..
	Deaths	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	1	8	..	..	..
	Cases treated in hos- pital	Under 5 5 & upwards	..	29	12	..	1	..	..	..	..	..	..	..	..	..
UTTOXETER. 8,150. 16/3. Nil.	Cases	Under 5 5 & upwards	..	1	..	..	1	..	..	..	..	2	1	..	..	..
	Deaths	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cases treated in hos- pital	Under 5 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..

† Poliomyelitis, 1 case.

RURAL—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria (including Membranous Croup).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phthisis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
			Under 5 5 & upwards	4	2	..	1	..	..	1	..	2	29	..	..	..
WALSALL.	Cases	Under 5 5 & upwards	..	8	..	..	1	..	..	1	..	2	29	..	..	..
11,113.	Deaths —	Under 5 5 & upwards	..	..	..	..	..	..	..	1	..	..	1	..	..	7
11/-													13	..	..	3
6.6.	Cases treated in hos- pital ..	Under 5 5 & upwards	..	1	..	..	..	..	..	..	..	..	..	..	..	..

SUMMARY OF
SANITARY INSPECTORS' WORK.

URBAN—continued.

District, Population, &c.	Dwelling-houses and Schools.				House drainage.										Unwholesome food.				Food and Drugs Act.				Precautions against infectious disease.																											
	Poor conditions	Structural defects	Overcrowding.	Unit for habitation.	Logging-houses.	Dairies and Milksheds.	Cowsheds.	Bakehouses.	Slaughterhouses.	Canal Boats.	Privies.	Deposits of refuse and manure.	Water-closets.	Defective Traps.	No disconnection.	Other faults.	Water supply.	Pipes.	Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	No. of Seizures.	Condemned by Magistrate.	Prosecutions for exposing for sale.	Convictions for exposing for sale.	Samples taken for analysis.	Number found adulterated, &c.	Proceedings taken.	Number of convictions.	Samples of water taken for analysis.	as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.										
TETTERHALL (5,359).																																																		
Inspections and Observations made	16	27	17	24	..	28	36	14	60	..	504	13	23	160	..	71	23	23	68	1107							
Defects found	..	7	10	5	12	..	14	22	6	19	..	56	3	6	65	..	18	5	7	28	283						
Informal notices by inspector	..	7	10	5	12	..	14	22	6	19	..	56	3	6	65	..	18	5	7	28	283					
Formal notices by authority	4	48	2	54					
Nuisances abated after notice by inspector	7	10	5	12	..	14	22	6	19	..	56	3	6	65	..	18	5	7	28	283					
Ditto by authority	4	48	2	54				
TIPTON (32,000).																																																		
Inspections and observations made	215	97	20	8	..	74	200	96	96	175	140	10	20	5	15	5	5	5	5	6	..	2	4	1198			
Defects found	..	215	97	20	8	..	1	140	10	20	5	15	5	5	5	5	6	..	2	4	559			
Informal notices by inspector	20	140	10	20	2	4	201			
Formal notices by authority	40	24	140	5	209			
Nuisances abated after notice by inspector	20	100	10	20	5	2	4	172		
Ditto by authority	..	49	49	..	8	..	1	20	10	5	143		
UTTONGETER (5,650).																																																		
Inspections and observations made	261	..	12	18	81	12	84	..	640	14	316	263	..	235	6	8	12	..	60	13	2035	
Defects found	..	196	1	15	4	6	..	80	11	25	..	97	..	5	4	2	4	450
Informal notices by inspector	..	26	1	15	3	4	..	77	11	25	..	63	..	2	2	1	4	234
Formal notices by authority	..	173	9	1	2	..	15	3	6	38	..	3	3	1	254
Nuisances abated after notice by inspector	23	1	6	3	4	..	66	8	18	59	..	2	1	1	4	196
Ditto by authority	..	83	9	1	2	..	14	3	6	38	..	3	3	1	163

[illegible]

