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STAFFORDSHIRE COUNTY COUNCIL.

Annual Report

OF THE

MEDICAL OFFICER of HEALTH
W. D. CARRUTHERS, M.B., D.P.H.

For the Year 1928.

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Annual Report of the Medical Officer of Health.

PRELIMINARY NOTE.

The Annual Report for 1928 has been prepared in accordance with the recommendations contained in Circular 939 of the Ministry of Health, and relates only to the year under review. This year has been noteworthy from a health standpoint. The general death-rate and the infant mortality rate are the lowest yet recorded and are lower than that for England and Wales as a whole. There has been no serious epidemic throughout the county, whilst there has been comparatively few deaths this year from bronchitis and pneumonia; and the gradual reduction in those due to tuberculosis has been maintained.

During the year the Administrative County became less by 4,084 acres and lost a population of 2,700 owing to Perry Barr Urban District becoming absorbed by surrounding areas.

I have again included in this year's Report extracts from the Annual Reports of the District Medical Officers of Health relating to such primary functions of the Sanitary Authorities as to the water supply, sewage disposal and housing of their areas, for they give a useful summary of the large amount of work performed during the year and indicate what has yet to be undertaken.

In the other portion of the Report some account will be found of the work at the County Laboratory and of the measures taken to supervise the milk supply, and, lastly, that of the work of the Maternity and Child Welfare Scheme in the Health Visiting Area, which is less than half that of the Administrative County. Digitized by the Internet Archive in 2018 with funding from Wellcome Library

STAFFORDSHIRE COUNTY COUNCIL.

Annual Report of the Medical Officer of Health.

Summary of Statistics.

1.—GENERAL STATISTICS.

Area of Administrative County	 (acres) 689,8	93
Population (for Death Rate)	 (1928) 712,0	80
Population (for Birth Rate)	(1928) 713,8	
	£3,207,2	
Sum represented by a penny rate	 £13,363 14	11

2.—EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

		draw.			
	Total.	M.	F.		
Births (Legitimate) (Illegitimate)	13,287	$6,850 \\ 248$	6,437 }	Birth-rate	19.2
Deaths	7,528	3,985	3,563	Death-rate	10.5
Number of women dying of, childbirth				From sepsis From other ca	
Deaths of infants under Legitimate, 60; Ille					
Deaths from Measles (all ,, ,, Whooping ,, Diarrhœa (Cough (all	ages)			0.7

AREA AND POPULATION.

I have again to record an alteration both in the area and population of the administrative county. On April 1st, 1928, the Perry Barr Urban District, containing 4,084 acres, with a population of 2,700, was absorbed partly by West Bromwich C.B., the City of Birmingham, and the borough of Sutton Coldfield.

Tht populations of the various districts used in calculating the birth and death rates have again been supplied by the Registrar General. Those of the Perry Barr Urban District, which have been affected by the extension of West Bromwich C.B., the City of Birmingham and the borough of Sutton Coldfield Extension Order, have been adjusted for the calculation of birth and death rates and are shown in the General Mortality Tables at the end of the Report. The births and deaths are inclusive of those registered before the transfer took place.

With the exception of one district, viz., Lichfield Rural, where there is a large Barracks, a single population is shown and this is applicable to both births and deaths.

The Registrar General supplies a "standardising factor" for correcting death rates in districts with a population of over 10,000. The rates produced by this method are strictly comparable, the factor being based on the age and sex of the population as indicated at the last census. The standardised death rates in those areas in which this method can be applied are shown in the Tables at the end of the Report.

The estimates of population as at the 30th June, 1928, which are now provided, have been based on the adjusted 1921 figures, after allowance for varying rates of natural increase as evidenced by the births and deaths in each area and of migration as indicated from other sources of information, such as the changes in the numbers on the parliamentary register and the migration returns obtained by the Board of Trade.

In the following table, the census population of the Administrative County for 1921, and the estimated population to the middle of 1928, are set forth:—

	Census, 1921	Estimated Population as at middle of 1928.
Urban	492,333	500,560
Rural	218,532	* 210,540
Total	† 710,865	711,100

* The estimated population for the birth-rate in the rural districts is 212,280.

[†]The Census population of the Administrative County as now constituted is less than this figure by about 48,700, owing to the absorption of certain districts in the extended County Borough of Stoke-on-Trent referred to in my Annual Report for 1922, the extension of Wolverhampton County Borough, 1927, and the extension of West Bromwich County Borough, Birmingham City, and Sutton Coldfield Borough.

BIRTHS.

The births registered in the Administrative County numbered 13,742, compared with 13,856 the previous year, the number in the urban districts being 9,883, and in the rural districts 3,859, compared with 10,027 and 3,829 respectively.

In comparing the figures for 1928 with those of previous years, however, it should be borne in mind that the estimated population of the Administrative County is 2,830 less than it was for last year.

The mean birth-rates in the whole Administrative County and in the urban and rural districts respectively for eight quinquennial periods and for 1928 are shown in the following table, in which corresponding rates in England and Wales are included:—

			BIRTH-RATE PER 1,000 OF POPULATION.								
	DISTRICTS.	1889-	1894-	1899-	1904-	5 yrs. 1909- 1913,	1914-	1919-	5 yrs. 1924- 1928.	1928,	
Staffordshire	Combined Urban and Rural	33.6	33.2	32.5	30.3	27.8	24.0	24.1	20.2	19.2	
Ford	Urban	35.5	34.7	33.6	31.5	29.2	25.0	25.0	20.7	19.7	
Staf	Rural	30.2	30.5	30.2	27.0	24.4	21.6	22.0	19.0	18.2	
Eng	land and Wales	30.8	29.7	28.7	26.9	24.5	20.4	21.3	17.8	17.4	
Lar	ge Towns in England	31.5	30.7	29.7	27.8	25.2	*20.9	22.0	18.2	17,6	

* 4 years.

DEATHS.

The number of deaths in the Administrative County amounted to 7,528, the number in the urban districts being 5,286, and in the rural districts 2,242.

In the following table comparative rates for eight quinquennial periods and for 1928 are given, together with corresponding figures for the country as a whole, and for large and small towns throughout England:—

	DEATH-RATE PER 1,000 OF POPULATION.										
DISTRICTS.	1889-	1894-	1899-	5 yrs. 1904- 1908.	1909-	1914-	1919-	1924-	1928		
Combined Urban and Rural Urban	18.1	16.9	16,1	14.6	14.1	15.0	12.3	11.4	10.5		
Urban	18,9	17.5	16.6	15.1	14.7	15.5	12.6	11.5	10.5		
Rural	16.8	15.7	15.1	13.4	12.7	13.8	11.6	11.2	10.6		
England and Wales	19.1	17.4	16.9	15.3	13.9	15.2	12.5	12.0	11.		
Large Towns	21.0	19.0	18.2	15.8	14.3	15.5	12.6	12.0	11.6		
Smaller Towns	17.6	15.9	15.7	14.9	13.6	14.1	11.5	11.0	10.0		

The death-rate per 1,000 of the population for this year is 10.5, whilst that for the country as a whole is 11.7. On referring to the Table for previous years, it will be noted that except during the quinquennial period, 1909 to 1913, the death-rate in this County has been slightly lower than that for England and Wales during the last 39 years.

In the following Table I have shown the chief causes of death for the last six years, the number given for 1928 being approximately 68% of the total deaths:—

TABLE SHOWING CHIEF CAUSES OF DEATH.

			1923	1924	1925	1926	1927	1928
*Zymotic Diseases		***	540	271	604	337	386	242
Influenza			166	427	325	185	532	116
Tuberculosis of Respirat	tory	System	497	497	530	497	465	423
Tuberculosis, other forms	S		172	154	143	139	156	99
Cancer, Malignant Disea	ise		716	639	790	785	803	851
Cerebral Hæmorrhage			485	487	542	464	465	430
Heart Disease			900	968	1053	1054	1047	1239
Arterio-sclerosis			194	205	238	229	315	365
Bronchitis		***	644	687	648	544	650	395
Pneumonia			706	788	809	660	865	563
Congenital Debility &c.			482	551	521	496	453	428

Enteric Fever, Measles, Small-pox, Scarlet Fever, Whooping Cough, Diphtheria and Diarrhœa.

The chief cause of death in 1928, as in the previous year shown in the Table, is heart disease. This year it will be observed there has been a reduction in the deaths from zymotic diseases and from influenza, and whilst this is satisfactory it must not be forgotten that large fluctuations in the number of such deaths must be expected from year to year so that all that can be claimed is that 1928 was a good year as far as these diseases are concerned. The Table shows a reduction in the number of deaths from tuberculosis both of the lungs and of other forms of this disease, but on the other hand there has been an increase in the deaths from cancer. With regard to the latter, it has been frequently pointed out that in the early stages cancer is painless and for that reason it has been found only too often that medical advice is not sought at a stage when permanent relief can be expected from treatment. An attempt has been made during the last four years to inform the public of this fact by means of leaflets which are distributed at the Clinics and by midwives, though, unfortunately, the deaths from this disease continue to increase in number.

During the year there has been a noticeable decrease in the deaths from bronchitis and pneumonia, and, in fact, in 1928 there were fewer deaths from these diseases than during the previous five years. There has been a slight reduction in the number of deaths of infants from congenital debility, prematurity and such like causes, but on reference to the Table it will be observed that, unfortunately, there is not much fluctuation in the deaths from these causes which have remained between 400 and 500 during the last six years. This matter has been dealt with in recent reports and will be again referred to in the Maternity and Child Welfare Section of this Report.

Water Supplies.

In the following paragraphs will be found an account of the work undertaken during the year by various Local Authorities to improve the water supply of their areas as shown in the Annual Reports of the Medical Officers of Health, together with comments made by the Medical Officers where improvements in the water supply are urgently needed.

AUDLEY U.D.—"In August an extension of the main was carried to a group of cottages which had previously been supplied by a well discovered to be contaminated in 1926. Extensions were also made to three dairy premises."

BIDDULPH U.D.—"The Council were successful in finding additional water at Elm Hurst to augment the present supply to the District. When sinking operations were completed 250,000 gallons in 24 hours were obtained, and analysis shews this water to be of excellent quality for drinking purposes and in every other respect. This quantity is more than sufficient to supply the needs of the District for many years. The Council have laid their Scheme before the Ministry of Health and it has received approval. It is anticipated that the additional supply will be connected to the existing system within the next few months."

BILSTON U.D.—The Medical Officer of Health, after describing the public water supply of this district, states that :—"The supply of water is abundant for all purposes and the Certificate of the County Analyst (Mr. W. T. Jones) of a sample of water taken on the 6th November, 1928, proves the water to be pure and of excellent quality. The only houses in the area not supplied are three groups of cottages at a considerable distance from the service mains."

Brownhills U.D.—" Five samples of water were taken from wells during the year for the purpose of analysis.

- "(1) Draw Well supplying six houses, Pelsall Road, Norton Canes. Result—Water polluted. The well was thoroughly cleaned out, the top portion puddled, and the well-top raised."
- " (2) Draw Well supplying five houses, Watling Street, Norton Canes. Result—Water polluted. The well was closed and a new well sunk. Water now good.
- "(3) Draw Well supplying six houses, Brownhills Road, Walsall Wood. Result—Water not above suspicion. The well was closed, and a supply of water laid on to the houses from the mains of the South Staffordshire Water Works Co.
- "(4) Draw Well supplying three houses, Beech Tree Road, Walsall Wood. Result—Water polluted. The well was closed, and a supply of water laid on to the houses from the South Staffordshire Water Works Company's mains.

"(5) Draw Well supplying two houses, Church Street, Brownhills. Result—Water polluted. Well closed and a supply laid on to the houses from the South Staffordshire Water Works Company's main.

"The South Staffordshire Water Works Company have extended their water main for a distance of over 600 yards to Little Norton, Norton Canes. Three wells at this place which were supplying 17 houses with water have been voluntarily closed, and supplies laid on to the houses from the said main."

CANNOCK U.D.—"The water supply of the district is good, and very few houses remain which are not connected to the mains of the South Staffordshire Water Works Company. These are chiefly at Cannock Wood, on the outskirts of the district, where the altitude is too great to be reached, although the reservoir stands at 777 feet.

"Work has now been commenced to build a new reservoir.

"There are also a few houses at Leacroft not reached by the public supply. A well in that area was ordered to be closed owing to pollution, and an alternative supply was secured.

"Some years ago the system of water supply by standpipes, one serving several houses, was not infrequently met with, but these are now a rarity. Whenever met with, a notice is served to provide an internal supply over the house sink, and the Council have very wisely insisted on this being carried out.

"During the year 22 houses were furnished with an improved supply in this manner."

LICHFIELD CITY.—"The number of houses served direct from the works of the Conduit Lands Trust is 1,739. Indirect from standpipes 340, and from private wells 30.

"Some houses in outlying parts are supplied by the South Staffordshire Water Works, and a few by wells on the premises.

"No cases of metal contamination have occurred.

"There was considerable contamination of the water from Bacillus Coli found in the summer. This was found to be due to contamination of the wells at the Pumping Station from sewage from Trunkfields Farm. There was a commission from the Ministry of Health concerning this contamination. Various suggestions were made to remedy this defect, and since then there has been a great improvement in the water supply.

"All possible connections between the water system and the drains have been cut off."

Quarry Bank U.D.—"All the houses, except for a few outlying places, are supplied with a continuous piped water service, and Mears Coppice, a small detached area, has a stand pillar available, but at such a distance as to prevent its satisfactory use. Some of the cottages still prefer the surface wells. For many years the Council has striven for combination among the owners, but for some of them the expense is admittedly almost prohibitive. The difficulty is so acute and the risk so considerable, that the Council would appear to be justified in coming to their financial assistance if this is feasible."

ROWLEY REGIS U.D.—"I am indebted to Mr. F. J. Dixon, Engineer in Chief of the South Staffordshire Water Works Company, for the following short report on the water supply of this area:—

"'The water has been continuous throughout the past year and the high quality and purity of the water maintained. The Company's new Pumping Station at Prestwood is now in full commission and supplies water of excellent quality and of a hardness slightly less than that previously supplied to part of the Council's area.

"'Owing to the undulating contour of this area, there are four Zones, Turner's Hill being the highest level and Old Hill and Cradley Heath the lowest."

RUGELEY U.D.—"This is in the same condition as last year. The scheme for obtaining a more abundant supply has not yet materialised, and is still being considered."

Sedgley U.D.—" With the exception of about 50 houses on our Wolverhampton border, the whole of the district is supplied with water by the South Staffordshire Water Works Company. The water is drawn from areas outside the district; the supply is constant and of good quality, but very hard. Fourteen new houses have been connected with the mains. The few rain-water wells and cisterns, which are still to be found, are used solely for washing and cleansing purposes."

STAFFORD M.B.—"The new Reinforced Concrete Reservoir, which has a capacity of one million gallons and is situated on a site adjoining the original service reservoir on Satnall Hills, was brought into commission on June 4th last, and has been in constant use since that date."

Wednesfield U.D.—" Number of instances of contamination noted:—

- "In regard to the above-mentioned instances of contamination, item (a) concerned four cottages in Moathouse Lane, which were supplied from a common well. Without having to recourse to an Analyst's certificate, it was obvious the water was contaminated. Accordingly, strong representation was made to the owners concerned, with the result the old well was dismantled and a new one constructed. The new supply has been analysed and found fit. These four cottages are about one-third of a mile from the nearest main.
- "Item (b) includes a contaminated well at a bungalow, near Moathouse Bridge, and the streamlet from which Devil's Elbow derives its supply.
- "In the first instance the bungalow was devoid of supply, and on request sunk a well which produced a clear and sparkling supply. This was tested and proved unfit. A further well has been sunk, the water from which has not been tested.
- "In the second instance an analysis of the streamlet at Devil's Elbow disclosed animal pollution. The owners were requested to connect to the water main, about 400 yards distant. The owners protested on the grounds of the heavy expenses, and a compromise was effected whereby a stand pipe should be erected some distance down the lane. This work has been effected."

WILLENHALL U.D.—"The district is supplied with water from the Wolverhampton Corporation mains. The mains have been continually extended on account of the development of Housing Schemes. Very few houses in the area are now not supplied with water.

"The supply is constant and abundant for all purposes. Several complaints were received during the year of the water containing vegetable matter and of having an unpleasant odour and turbid appearance. The Water Engineer was interviewed and the vegetable matter was attributed to certain conditions in the reservoirs. An analysis of two samples showed that both were of good quality—both chemically and bacteriologically—and well suited for use as Public Supplies."

CANNOCK R.D.—"A report was made on the water supply from wells supplying eight houses in Shawhall Lane, Bushbury, and when tested the water in all the wells was found to be polluted. The Council decided that negotiations should be entered into with the Wolverhampton Corporation to secure an extension of their water mains to supply these houses. This was agreed to, and the mains will be extended.

"Arrangements were made with the South Staffordshire Waterworks Company to extend their Mains from Four Ashes across Calf Heath to supply 50 houses with water. This work is in hand."

Gailey Schools.—" Water supplied from a well, which is unsatisfactory. Negotiations are in progress with the Managers."

Stretton Schools.—" Water, not very good in quality, is obtained from a well. Negotiations with the Managers are in progress to have same remedied."

Wheaton Aston Schools.—"Water supplied from a well, which is unsatisfactory. Negotiations are in progress with the Managers."

CHEADLE R.D.—"Cheadle town and its immediate surroundings are supplied with good and wholesome water by the Cheadle Waterworks Company. This Company has recently sunk a deeper well and has now an abundant supply of water.

"Kingsley, Froghall and district are supplied from springs at Shirley Hollow. This supply has been recently supplemented by connection with the Whiston supply, which latter is obtained from springs in that neighbourhood.

"Practically the whole of the district is now supplied with good and wholesome water, but the village of Hollington, Freehay district, Boundary and Draycott are still for the most part dependent on wells, and many of the inhabitants of these villages have long distances to go for drinking water."

GNOSALL, R.D.—"Water for drinking purposes is now supplied by pipe service in the village of Norbury, where previously all wells with very few exceptions had been found on analysis to be badly polluted with sewage matter. The water is pumped by a petrol engine three or four times weekly to a large galvanised tank from which it gravitates to taps or stand pipes in the village. The supply to Norbury Junction Cottages, however, remains rather unsatisfactory, as there is only one well or boring, which has to supply more than 12 cottages, and the quality of the water obtained from a peaty subsoil is not of the best, being on analyst's report only reasonably fit for drinking purposes.

"In Gnosall the public supply continues to give satisfaction under normal conditions. Should, however, there be any call for further connections, a larger storage tank would be necessary. In Gnosall Heath wells provide a limited supply of water, in some cases of rather doubtful quality, although, during the year, three wells which had previously been regarded with suspicion proved on analysis to be of good drinking quality.

"In Church Eaton conditions remain as before, and no further steps have been taken to provide a piped supply. Originally, it was proposed that two new borings should be sunk to provide a good supply throughout the main village street, but this proposal has not been put into execution."

LICHFIELD R.D.—The Surveyor, in his Report, writes as follows:—

"The Armitage, Brereton and Longdon scheme, by which it is proposed to supply those villages with a piped supply of water, is now with the Ministry of Health, and no doubt a decision will be reached in a short time."

MAYFIELD R.D.—"The only available supply at Calton and the hilly parts of the district is stored rain water."

NEWCASTLE R.D.—"At Low Hill, Madeley, a well went dry during the year. It is alleged that this is in consequence of pumping by the Railway Company, which has three pumping stations in the district. It seems that other districts are being supplied with water at the expense of the valley where the pumping stations are situate."

SEISDON R.D.—"There have been extensions of the water main in Bobbington. A private supply of water has been brought to several houses in Tutor's Hill, Pattingham, otherwise it is still without a proper water supply.

"Tap water has been supplied to five houses on Penn Common and five houses at Deep Mere, Wrottesley."

STAFFORD R.D.—" As stated in my Report for 1927, an agreement has been made for the Stafford Corporation to lay water mains in parts of the Colwich Parish at an estimated cost of £4,800, subject to the Rural District Council agreeing to pay the Corporation 10 per cent. of the capital outlay for a period of 30 years (less the amount of water rents received).

"Two thirds of the Water Main has been laid covering a supply of water to some 318 houses."

STONE R.D.

" Eccleshall.—The inhabitants of this large village have only a sewage-contaminated water supply.

"Acton.—The water supply is unsatisfactory."

TUTBURY R.D.—" (a) The water supply throughout the district is satisfactory in quality.

"(b) In quantity, the supply is deficient in parts of the parish of Hanbury in dry weather."

Rivers Pollution Prevention.

A Hydrographical Survey of the River Trent was instituted by the Standing Committee on Rivers' Pollution of the Ministry of Agriculture and Fisheries in 1923, and has been continued yearly since that date.

accompanying Table the percentage of the oxygen saturation in the streams at certain fixed points is shown. The extent of the pollution can be judged when it is remembered that a percentage saturation of oxygen below 65 means that the stream is too polluted to support fish life. On reference to the Table it will be noticed that the heavy pollution of the streams that is now taking place in the industrial areas is observed for a considerable distance down stream. Unfortunately, as the streams in the industrial areas are so small, the degree of purification of effluents before discharge into them has to be much greater than if they found their way into a large river and, consequently, the expense is correspondingly greater. In last year's Report a summary of the work undertaken by the various Sanitary Authorities during the year was given, and this year similar details are included in the succeeding paragraphs.

RIVER TRENT.

			PEI	RCEN	FAGE	of (XYG	EN S	ATUR	ATION	٧.		
Location.	1923		1924			193	25	19	26	19	27	19	28
	July.	May.	June.	July.	Sept.								
River Trent at Strong- ford Bridge	38	28	33	29	47	25	35	41	45	53.5		6.5	30.0
River Trent at Darlaston above Stone	48	52	50	29	49	29	30	21	29	41	34.5	17.0	14.0
River Trent at Aston, below Stone	31	47	50	34	43	37	30	24	29	44.5	43	29,5	50.5
River Trent at Great Haywood Mill, before receiving River Sow	43	52	42	37	47	38	12	21	40	33,5	50	14 0	41.5
River Trent at Great Haywood Mill, below Weir		65	57	60	61	48	33	40	43	48	60	46.5	51,0
River Sow at G.N. Railway Bridge	44	80	73	58	71	66	71	40	57	52	68,5	63.0	59.5
River Sow at Brick Bridge	63	107	93	59	73	102	89	33	75	36	67.5	88.5	67.5
River Penk at Radford.	49	78	65	60	66	115	86	56	82	26.5	34.5	66.5	64.0
River Sow at St. Thomas	44	88	74	53	69	69	56	22	65	40	52.5	57.5	32.5
River Trent at Weet- man's Bridge, near Little Haywood	49	68	53	43	50	38	44	27	34	27.5	51	35.0	48.0
River Trent at High Bridge below Rugeley Sewage Works	64	74	69	61	52	53	46	31	48	35.5	51	45.5	42.0
River Trent above confluence with River Tame	60	89	71	81	85	99	81	70	78	62	78.5	80,5	80.5
River Tame at Perry Bar, before entering Birmingham	28	44	48	32	37	13	11	21	39	37	31.5	19.0	26.0
River Tame above confluence with River Trent	50	64	70	60	45	44	46	37	46	45	53	39.0	47.5
River Trent below junction with River Tame		65	72	74	56	42	39	45	53	56.5	67	56.5	57.5
River Trent, North Boundary of Burton- on-Trent	58	70	67	73	65	77	57	54	62	46.5	71.5	66.5	56.5
River Dove above con- fluence with River Trent	69	106	99	103	84	100	103	83	100	87.5	88,5	104	105
River Trent below con- fluence with River Dove		93	74	82	77	82	72	58	63	62	78,5	88.5	73.5

In the following paragraphs will be found an account of the work undertaken during the year by the various Local Authorities to improve the means for the disposal of sewage in their areas, as shown in the Annual Reports of the Medical Officers of Health together with comments where improvements are urgently needed.

RIVER MERSEY WATERSHED.

AUDLEY U.D.—" With the exception of the replacement of a few yards of old sewer in Church Street, Butt Lane, there has been no change.

- "The irrigation area at the Hollins, Talke, continues to be inadequate for the amount of sewage dealt with.
- "Nuisance is occasioned at various points by the primitive methods of sewage disposal practised, and although the best use is made of the land available by frequent diversion of the flow, streams are still rendered very foul.
- "In January a letter was received from the County Council to the effect that unless immediate steps were taken to carry out the existing scheme for sewerage of the District without delay, the County Council contemplated the service upon the Council of a statutory notice under the Rivers' Pollution Prevention Acts. The Council replied that owing to continued serious depression in the coal-trade (which is the principal industry of the district) the enforcement of an expensive sewerage scheme upon the district was unreasonable. It was suggested by the Council that the needs of the district could be met by a modified scheme to deal with the sewerage of such parts of the district as were most urgently in need of attention.
- "At the end of January, statutory notice was given of the County Council's intention to take proceedings against the Council after two months unless steps were taken meanwhile to comply with the notice and prevent pollution of the streams of the district. The Council then wrote to the Ministry of Health, explaining their exceptional difficulties and asking if a grant might be made towards the cost of the scheme. A deputation from the Council was received at the Ministry in April, and was informed that the Ministry would request the County Council to delay action pending further inquiry and report by one of the Ministry's Inspectors.

Intimation was also given to the effect that the unemployment in the district was not such as could be regarded as sufficiently exceptional to enable an application for assistance to be entertained."

BIDDULPH U.D.—In my Annual Report for 1927 I said, with reference to this area:—

"Pollution of the Biddulph Brook occurs from the sewage of some cottages near the forge on the Congleton Road, and the Local Authority have been asked to consider a scheme for dealing with this. A Committee has been appointed to visit and to report to the Council"; and although the Sanitary Inspector in his Annual Report said:—

"The main system is satisfactory. The time, however, has arrived when, owing to the Council having erected 186 houses under the Housing Acts, it will be found necessary to make provision for adequate treatment consequent upon this addition. Additional lengths of sewers have been laid during the year necessitated by houses and improvements to existing systems.";

the only mention he makes in his Annual Report for 1928

is as follows:-

"Drainage and Sewage.—Some additional sewage has been dealt with during the year.

"The system generally and the Disposal Works continues

to work satisfactorily."

RIVER TRENT WATERSHED.

LEEK U.D.—"The pollution of the River Churnet by sewage and trade waste has been under consideration by the District Council and the silk manufacturers. Samples have been taken and further consideration is to be given to a report on the means of sewage disposal prepared by a firm engaged for the purpose of advising as to the best means to be adopted."

CHEADLE R.D.—"Improvements in the drainage and sewage disposal have been carried out during the year in several parts of the district. A new disposal works has been constructed at Cheddleton, but owing to the rapid increase

in the number of houses being built, this district is likely soon to require additional works.

"New lengths of sewer have been laid at Werrington and at Cheadle, and at the latter a new and comprehensive scheme for the sewerage and sewage disposal of the greater part of the town has been prepared.

"Blythe Bridge and Forsbrook villages are also being improved in this respect, and plans are being prepared for the erection of sewage purification works in that district. A scheme for modernising the sewerage and disposal of sewage in the village of Ipstones is under consideration, and at Ashbank, near Werrington, land has been acquired for the purpose of erecting sewage disposal works to satisfy the needs of that district."

Wolstanton U.D.—The District Council have adopted a scheme for the treatment of the sewage of the population of the major portion of Wolstanton proper—Chesterton, Silverdale, Knutton and Cross Heath—on the biological principle, and a firm of engineers have this in hand. The new works will replace three, where the sewage is treated inadequately on land, and more or less serious pollution of the Lyme Brook will be abated.

On the application of the Council for a loan to carry out the work a public inquiry by one of the inspectors of the Ministry of Health was held. Subsequently the Ministry suggested that a Conference should be held between the Urban District Council, the Borough Council of Newcastle-under-Lyme, and the City Council of Stoke-on-Trent, with the object of investigating alternatives to the additional plant now proposed. Such a Conference was held under the chairmanship of an Inspector of the Ministry, and at that Conference it was decided to take the opinion of an independent expert on the alternative suggested by the Ministry. The receipt of the considered opinion of the expert is at present awaited.

In the meantime pollution of the Lyme Brook is occurring.

NEWCASTLE M.B.—A firm of engineers has been instructed to furnish a report on the sewerage and sewage disposal of the district.

The same remarks apply to this district as in Wolstanton.

CITY OF STOKE-ON-TRENT.—The scheme for a new works mentioned in my last Annual Report, in substitution for the existing two, is in progress at Strongford. In the meantime pollution of the River Trent is occurring.

STAFFORD M.B.—The new sewage disposal works which are being constructed on the Activated Sludge principle (Diffused Air) are now nearing completion. It is anticipated that these works will be in full operation dealing with the whole of the sewage from the town in July next. Three units comprising one half of the complete scheme, have been dealing satisfactorily with half the total flow of sewage since December last.

STAFFORD R.D.—"The Stafford Corporation have, by agreement, allowed five houses to be drained into the Borough Sewer.

- "An extension was therefore made by a 9in. pipe for 346 feet and also a surface water sewer for 300 feet in the Rickerscote Road, Castlechurch Parish. Other extensions previously allowed by Stafford Corporation for premises to be drained to the Borough sewer are:—
 - " (1) Sixty houses on the Burton Manor Estate, Castlechurch.
 - " (2) Seven houses in Wolverhampton Road, Castlechurch."

UTTOXETER U.D.—The Sanitary Inspector, in the Annual Report of the Medical Officer of Health, states:—

- "Rivers and Streams.—The question of the pollution of rivers and streams is carefully watched. The new scheme installed by the Wilts United Dairies, Ltd., has now been in operation for some months, and has resulted in a great improvement in the condition of the Hockley Brook.
- "Regarding the system mentioned in my report for the year 1927 for dealing with the trade waste from Messrs. C. Buntings Ltd., Brewery, this, although put into operation, has now been closed because the Brewery is no longer used for Brewery purposes but as a store and distributing centre."

UTTOXETER R.D.—The Sanitary Inspector, in the Annual Report of the Medical Officer of Health, states:—

"Abbotts Bromley.—During the year the Ministry of Health held an inquiry and approved of the purchase of Manor Farm, Abbots Bromley, at a cost of £4,850 for sewage disposal works.

"The Council had for years leased a portion of this farm for outfall works and irrigation purposes, and on the expiration of the lease it was deemed advisable to purchase the farm so as to have better control over it.

- "Rocester.—The village of Rocester has a good system of sewerage but the disposal works are inadequate.
- "New Sewers.—During the year 150 yards of 6in. sewer has been constructed along Ashbrook Lane, Abbots Bromley, also 200 yards of 6in. sewer along Bag Lane, Marchington."

Wolverhampton County Borough.—A Ministry of Health Inquiry was held at Wolverhampton in April. This was to consider applications of the Corporation for the renewal of their certificate under the Wolverhampton Corporation Act, 1891, the certificate being to the effect that they were using the best or only practical means under the circumstances for rendering harmless the effluent from the sewage works and sewage lands flowing into the Pendeford Brook or its tributaries, which form the upper reaches of the River Penk. The application was opposed on behalf of the County Council, the Riparian owners, and the Trent Fishery Board, with the result that the Certificate was granted for three months only, pending the extension or remodelling of their works.

In July a similar application was made which was opposed on behalf of the County Council, the Riparian owners, the Trent Fishery Board, and the Cannock Rural District Council, with the result that the certificate was not renewed.

In October the Wolverhampton Corporation appealed against the Inspector's refusal to renew the certificate, which, after an inquiry by another Inspector from the Ministry of Health, was disallowed.

During the year an Engineering Expert was called in to advise the Corporation and elevated tanks and experimental filters were constructed with a view of ascertaining the best means of purification to be adopted, having regard to the nature of the sewage. The construction of an activated sludge plant for a portion of the daily flow of sewage is completed, but owing to the increase in strength of the sewage the plant has been unable to deal with the volume it was expected it would treat satisfactorily.

A second unit of the bio-aeration plant is in course of construction.

In the meantime serious pollution of the River Penk is taking place, and this has been the subject of communications between the Authorities and the Ministry of Health.

CANNOCK R.D.

- "Essington.—The Council during the year submitted a comprehensive Scheme to the Ministry of Health to deal with the sewage from the Broad Lane and Newtown areas of the Parish of Essington.
- "This was sanctioned, tenders accepted, and the work is well in hand. When completed, 130 houses will be properly sewered, and an area which has been both insanitary and unwholesome for years will no longer be an offence to the District.
- "Coven.—Numerous complaints have been received about the very unsatisfactory state of the disposal of the drainage from the houses in Coven. Little can be done to remedy this matter until proper sewers and sewage works are installed.
- "Penkridge.—Owing to the unsatisfactory disposal of drainage at 15 houses on the Marsh, Penkridge, the Council decided to lay a short length of sewer to deal with this. This sewer will later form a part of a comprehensive scheme for Penkridge, which is now in hand."

LICHFIELD R.D.—The Surveyor, in the Annual Report of the Medical Officer of Health, states:—

"As you are aware, several sewage extensions have been made during the year, more notably in Chase Terrace and Burntwood. This has increased the quantities of sewage to be treated, and in other districts where a considerable amount of building has occurred the same effect has been noticed at the sewage disposal works, viz.—a very much increased flow of sewage. In addition, there is a marked change in the character of the sewage at some of the Works,

due most probably to the increasing use of chemical soaps and powders for cleansing which produce a gelatinous mass, which even clogs up the coarse screens at Streetly Works, and of course has a very harmful effect on the filter beds—choking them up very quickly. This I hope to remedy in due course.

- " My report on the individual works is as follows :-
- "Whittington.—These works have been the subject of close investigation in the past six months, and several alterations in the mode of operation and adjustments to the machinery have been effected. A much better result is now being obtained. It was also found that considerable contamination of the brook above the sewage works was taking place through foul water drains connected to the storm water drain. These have been removed and connected to the foul water sewer with beneficial results. I anticipate that there will be no further justifiable complaints regarding these works or the effluent produced.
- "Streethay.—Satisfactory results are being obtained at these works. The main outfall sewer was broken-in accidentally, in the field adjoining the works, and was repaired. Renewals of the sprinkler jets will be required in the coming year.
- "Chasetown, Chase Terrace and Burntwood.—These works are now to be enlarged, and partly reconstructed, and I hope the new scheme will be in operation, or mainly so, when I next report.
- "Hammerwich.—The Village is to be sewered at once and will be completed with the Burntwood works.
 - " Triangle.—These works are still very unsatisfactory.
- "Armitage.—A slight improvement has been obtained by the temporary tank installed at the South outfall, and the works at the North outfall, although working fairly efficiently, are overloaded. Armitage will soon have to consider a comprehensive sewage disposal scheme, especially when the new water supply is obtained.
- "Brereton.—Considerable improvement has now been made at the Hazel Slade works by the installation of two Jones & Attwood's Distributors which are working very efficiently indeed. The outfall sewer has been relaid, and is now self-cleansing and watertight such that no sewage can gain access to the brook except in times of heavy storm,

and is all treated through the disposal works. New sludge drying beds have been constructed with under drains to the disposal works and the whole is now in a very satisfactory condition.

- "At Brereton Village conditions are by no means satisfactory. There has been no opportunity (with the great amount of work required on other schemes in the district) to present the comprehensive report mentioned last year, but it is hoped to put this forward in the coming year.
- "Colton.—An improvement has been made at Colton by re-laying a portion of the Sewer at one outfall, whereby the sewage is now carried into the septic tank and given land treatment instead of being allowed to pass direct to the water course as was the case previously. The other outfalls are working through the septic tanks in a satisfactory manner.
- "Yoxall.—At the time of writing this report (April, 1929) one outfall has been re-laid and a septic tank and rough filter installed. The other outfall is in process of being re-laid and tanks constructed. When complete it is hoped there will be no further cause for complaint at Yoxall.
- "Alrewas.—The revised scheme of sewerage for the whole village and the new disposal works is almost completed and will go to the Ministry of Health by the end of April, 1929.
- "Little Aston.—The Council have now issued instructions for a scheme to be sent to the Ministry of Health to include new sewers for Blake Street and Mill Lane, Streetly, and Shenstone Wood End together with extensions at the Forge Lane Disposal Works. This scheme will shortly go forward. During the past year moderate results have been obtained and the works have been practically working at full capacity. As mentioned previously, difficulty is being experienced on account of the large quantities of gelatinous matter reaching the filters and it became necessary to renew the media in both filters for a depth of 1foot 6in. This has considerably improved the working of the filters but in the proposed extensions of the works attention will be paid to this gelatinous matter and if possible a tank designed to arrest this floating substance in the settlement tanks.

"Stonnall and Lynn.—There is nothing to report of any improvement or advance in consideration of a scheme for these two places. I can only repeat my opinion expressed last year that the quite inefficient works at Stonnall should be abandoned, and the two places be linked up with a new main sewer, and the new works be constructed at Lynn. It will be the most economical method in the end."

RIVER TAME.

OLDBURY U.D. (WORCESTERSHIRE).—Consideration is being given to the laying of a trunk sewer from Oldbury to connect to the Birmingham Tame and Rea Boards' Works for treatment. In the meantime gross pollution of the Tame is taking place, only about half the volume of sewage being treated, the remainder being discharged into the River Tame after preliminary tank treatment only.

BROWNHILLS U.D.—The following are a few comments by Mr. Harrison, the Surveyor, on Sewerage and Sewage Disposal:—

- "Sewerage and Sewage Disposal.—Very little new Sewerage work has been carried out during the past year, but it has been necessary to take up and regrade about 600 yards of sewers affected by mining subsidence at Norton.
- "A 2in. centrifugal pump and 8 h.p. motor with automatic electrically controlled switchgear, has been installed at Allbutts Road, Norton Canes. This replaces the original plant, The inflow is dealt with immediately, doing away with overflowing, and there is a considerable reduction in cost.
- "Automatic sewage distributors have been installed at a cost of £375 on the bacteria beds at the Sewage Farm, thus doing away with the old system of pipe arms. The beds are now working to full capacity and the effluent is a good one.
- "Construction has been commenced of another bacteria bed of the same dimensions as the existing one."

Coseley U.D.—"Mr. G. E. Mitchell, Surveyor to the Coseley Urban District Council has very kindly given me a short report of the work carried out in the district in connection with sewerage as follows:—

- "During the year ended December 31st, 1928, considerable progress has been made with the laying of sewers, etc, in the following areas of the districts.
- "Completion of the Roseville area, Ladymoor, Deepfields, Bradley, Highfields, Daisy Bank, Lanesfield, Rookery, Upper Ettingshall, Woodcross, Shaw Road and Ettingshall Road.
- "In the above areas the sewers have been laid in 81 roads.
- "Length of sewers laid 14 miles, varying from 24in. to 6in. in diameter.
- "Six hundred and thirty-three connections have been made from the sewers to the Boundaries of Properties for dealing with 2,235 Houses, Works and six Day Schools.
- "The approximate expenditure for Sewers and Connections, £53,537. The various contracts have been carried out in accordance with the conditions of the Unemployment Grants Committee."

SEDGLEY U.D.

- "Drainage and Sewerage.—The work of connecting house drainage with the public sewers has received unremitting attention in each of the three drainage areas. Over 80 per cent. of the sewer connections have now been made; the procedure adopted is that the Surveyor's Department make all sewer connections and lay all drains. up to the boundaries of the properties being dealt with.
- "During the year 1928, 651 houses have been provided with new drainage systems, and up to the end of the year, 1,458 premises have been re-drained. The progress made is now apparent in the cleaner condition of most of our streets, where until recently foul waste water from the houses was discharged into the street channels.
- "Sewerage and Sewage Disposal.—A short length of sewer, 50 yards, has been laid in St. James' Street, Lower Gornal, to provide drainage for four houses; these have now been connected with the new sewer. Work is also proceeding in Monument Lane on the boundary adjoining Cosely Urban District, where 48 yards of 6in. sewer is being laid and connected to the sewers of the Coseley Urban District Council. This sewer will provide for the drainage of 23 houses, where the primitive condition of drainage and sanitary convenience are a menace to health.

"Sewage Disposal.—The disposal works at Sedgley and Upper Gornal, situated in the Tame watershed, and the disposal works at Lower Gornal situated in the Stour watershed, have been maintained and kept in an efficient condition. The Surveyor informs me that the effluent produced is of a particularly high standard, the effluent from the Upper Gornal works being specially noticeable for its purity."

SHORT HEATH U.D.

"Sewage Disposal.—A new storm water tank has been provided at the Clark's Lane Works and a further 40 foot circular filter with one of the latest type of distributors has also been added. The filter has been working for about six months and is giving good results."

Bilston U.D.—"The greater part of the district is sewered, the exception being the Great Bridge Road and Cross Street areas, approximately 40 houses and isolated dwellings situated in positions where the provision of sewers has up to the present been impracticable. The latter area is now about to be sewered by arrangement with Coseley Council and the sewering of Great Bridge Road is under consideration in view of housing developments.

- "In all cases where access to a sewer is possible the houses are properly drained.
- "The Sewage Disposal Works situate at the Lunt Bilston were first constructed in 1905 to deal with a daily dry weather flow of 517,000 gallons.
- "The works were extended and improved to treat a daily dry weather flow of 900,000 gallons in 1924 when detritus tanks and two storm water tanks were provided.
- "An agreement has been entered into with the Urban District Council of Coseley providing for the purification at the Lunt Works of the drainage from the northern area of Coseley comprising some 2,500 houses and the necessary extensions of the disposal works are in progress.
- "Two additional precipitation tanks, four circular percolating filters and two humus tanks are in course of construction.
- "When these extensions are completed the works will be capable of dealing with a daily dry weather flow of 1,379,000 gallons.

- "New sewers, storm overflows and duplication of old sewers have also been provided.
- "The Council also undertake the purification of the drainage from certain areas of the Darlaston and Willenhall Urban Districts and Wolverhampton.
- "The works continue to be maintained in an excellent manner, and to produce effluent of good quality."

TIPTON U.D.—The Surveyor in an appendix of the Annual Report of the Medical Officer of Health states:—

- "Sewage Disposal Works.—A most important matter relating to the above arose during the year and that was the suggestion by Birmingham Corporation that a valley sewer be constructed to take the whole of the sewage from this and other townships in the Tame Valley. Whilst the scheme itself was an excellent one and thirty years ago would have been welcomed, this Council could not possibly entertain the idea of scrapping an efficient and adequate disposal works as well as pay their share of the cost of providing the trunk sewer. After the report of the experts engaged by the County Council on existing works, the matter was dropped.
- "A fair quantity of dried sludge has been removed from the works by various people and has relieved the situation.
- "Storm Water Drain.—All the drains marked on the maps of the Mines Drainage Commissioners have been transferred to our own.
- "Several old culverts have been cleansed as well as all brookcourses. One section at the rear of the houses in Park Lane West has been piped with reinforced concrete tubes removing a source of trouble from the property adjoining.
- "All brookcourses with the exception of one are in a good condition. The only black spot still being Adden-brook which acts as the sewer for the Dudley Guest Hospital. Another year has passed since my last report on this matter but nothing has been done. Now that the County Borough of Dudley propose developing the Priory Estate it will be possible for them to drain the Hospital to their new works and this Council should insist upon the inclusion of same in any scheme which they put before the Ministry."

Wednesfield U.D.—An engineer has been engaged to advise the Council on a scheme for the sewering of part of the area, and the treatment of the sewage by artificial filtration in substitution for inadequate land treatment.

West Bromwich Borough.—Consideration is being given to the laying of a trunk sewer to convey sewage for treatment to the works of the Birmingham, Tame and Rea Board. In the meantime serious pollution is occurring.

RIVER SEVERN WATERSHED.

SEISDON R.D.—"On the Codsall Sewerage Scheme a Ministry of Health inquiry was held and the Council intend to proceed with the Scheme as soon as possible, and also with a scheme for Lower Penn, which is rendered urgent by the erection of new houses, especially at Langley.

"The Council have extensions and improvements of the Kinver Sewerage Scheme in hand In Wombourn the building activity renders the advisability, of a Sewerage Scheme more urgent then ever."

TETTENHALL U.D.

- "Sewerage and Sewage Disposal.—The scheme for the drainage of the Wergs area which was referred to in the Report for 1927 has now received the official sanction of the Ministry of Health.
- "Tenders have been invited and it is expected that the work will shortly be put in hand.
- "The Scheme comprises the construction of Sedimentation Tanks at Blackbrook (the existing Outfall Works) and nearly four miles of main outfall sewer; the provision of a Pumping Station at the Wergs and the necessary sewers for the Wergs area draining to it. A portion of the Finchfield area now not drained is to be sewered from Castlecroft Road to the main Outfall Sewer in Bridgnorth Road, near Wightwick Mill. This sewer will cross under the Great Western Railway Line and the Staffordshire and Worcestershire Canal."

QUARRY BANK U.D.

"Sewering and River Pollution.—The river Stour, which forms the Southern boundary of the district, is always foul. Most of the pollution is from works higher up discharging

their waste into it; but there remains the fact that some sixty houses near Stour Hill pass their sewage into the stream. Now that the Sewerage Board has increased its capacity there is no reason except financial stringency, why these houses should not be attached up to the sewers, and one would be proud to learn that this was to be done at a very early date, and so put the complete sewering of the district beyond any question."

UPPER STOUR VALLEY MAIN SEWAGE BOARD.

Owing to sewers being overloaded in Worcestershire and Staffordshire, pollution occurs on the Board's system, the storm water overflows operating during dry weather.

A comprehensive scheme has been prepared by the Engineer of the Board to duplicate the system and provide works for the treatment of approximately 8,000,000 gallons dry weather flow. A Ministry of Health Inquiry has been held and, after some amendment, the Ministry approved of the scheme and sanctioned a loan of £54,000, and the carrying out of the scheme is making good progress.

Housing.

In the accompanying table, which has been prepared from information supplied by the District Medical Officers of Health, the extent to which houses are being built in each sanitary district will be found. Taking the county as a whole, the actual number of houses built is less than last year, but more were reported at the end of the year as being in course of erection. The figures are 2,488 houses built compared with 4,219 in 1927, of which 1,356 were erected by local authorities under assisted schemes, as against 2,613 last year. At the end of the year 1,480 houses were in course of erection compared with only 210 in the previous year.

The total number of houses built and those in course of erection at the end of 1928 is 3,968 compared with 4,429 at the end of the previous year. These figures unfortunately show a reduction in the number of houses being constructed in the county.

STATEMENT showing the number of :-

(1) Houses erected in Staffordshire during the year 1928, and

(2) Houses in the course of erection at the end of 1928.

SANITARY DISTRICT.	By Auth under	Local nority assisted emes.		rwise.		tals.
Distact.	Houses erected during year 1928.	Houses in the course of erection at end of 1928.	Houses erected during year 1928.	Houses in the course of erection at end of 1928.	Houses erected during year 1928.	Houses in the course of erection at end of 1928.
URBAN.						
Amblecote	***		2		2	
Audley Biddulph	•••	•••	6	***	6	
Bilston	80	200	26	16	106	216
Brierley Hill	76	134	1		77	134
Brownhills			14	8	14	8
Cannock	MR 707	44	77	20	105	64
Coseley	20		24	7	44	7
Darlaston	91	68	9	4	91	72
Kidsgrove Leek	138	10	21	6	9 159	16
Lichfield	14	10	7	6	21	16
Newcastle	18		77	51	95	51
Quarry Bank			2	3	2	3
Rowley Regis .	198	190	29	13	227	203
Rugeley	10		2		12	***
Sedgley Short Heath	12		14 18	9	14 30	9
Stafford	62	136	51	26	113	162
Stone			4		4	
Tamworth			9		9	
Tettenhall			12	1	12	1
Tipton	82	4	15	5	97	9
Uttoxeter Wednesbury	19 108	80	6 3	5 11	25 111	5 91
Wednesfield	100		33	5	33	5
Willenhall	132	12	21		153	12
Wolstanton	131	*	9	*	140	*
Total	1,219	888	498	201	1,717	1,089
RURAL						
Blore Heath			8	8	8	8
Cannock			39	16	39	16
Cheadle	1		90	34	91	34
Gnosall			1	1	1	1
Kingswinford .			14 53	5 2 23	14 53	5 2
Lichfield			32	92	32	23
Mayfield			1	1	1	1
Newcastle			12	2	12	2
Seisdon			150	114	150	114
Shifnal			211	:::	272	:::
Stafford	:::	;;	52	25	52	25
Stone	18	14	25	30	43	6
Tamworth Tutbury	†58		20 16	6 23	78 16	23
Uttoxeter			6	2 2	6	23
Walsall	60	60	115	25	175	85
Total	137	74	634	317	771	391
Combined			Part of the last			
Totals,	1 256	962	1,132	518	2,488	1,480
Urban & Rural.	1,000	004 1	1,102	318	2,200	1,100

* Figures not available. + 52 erected by Borough Council. The other housing activities of the district councils have been summarised in the table 36 (a), from which it will be obvious that much work is still necessary in practically all the districts before it can be claimed that the housing conditions are satisfactory. Naturally, to a large extent, the amount of repair work depends on the alternative accommodation available for the tenants unless this is of a purely minor kind. In the comments made by district medical officers of health in their annual reports, from which extracts have been published in this report, it will be seen how much overcrowding still exists and how difficult it is to combat this as it is not possible to construct houses at an economic rent for a large section of the population. Until this problem is solved it is impossible to deal with unhealthy areas and slum dwellings in any drastic fashion.

Amblecote.—"The old property which I mentioned in my last Annual Report has now been pulled down and demolished.

"There are no special sanitary defects in the district which needs mention in this Report."

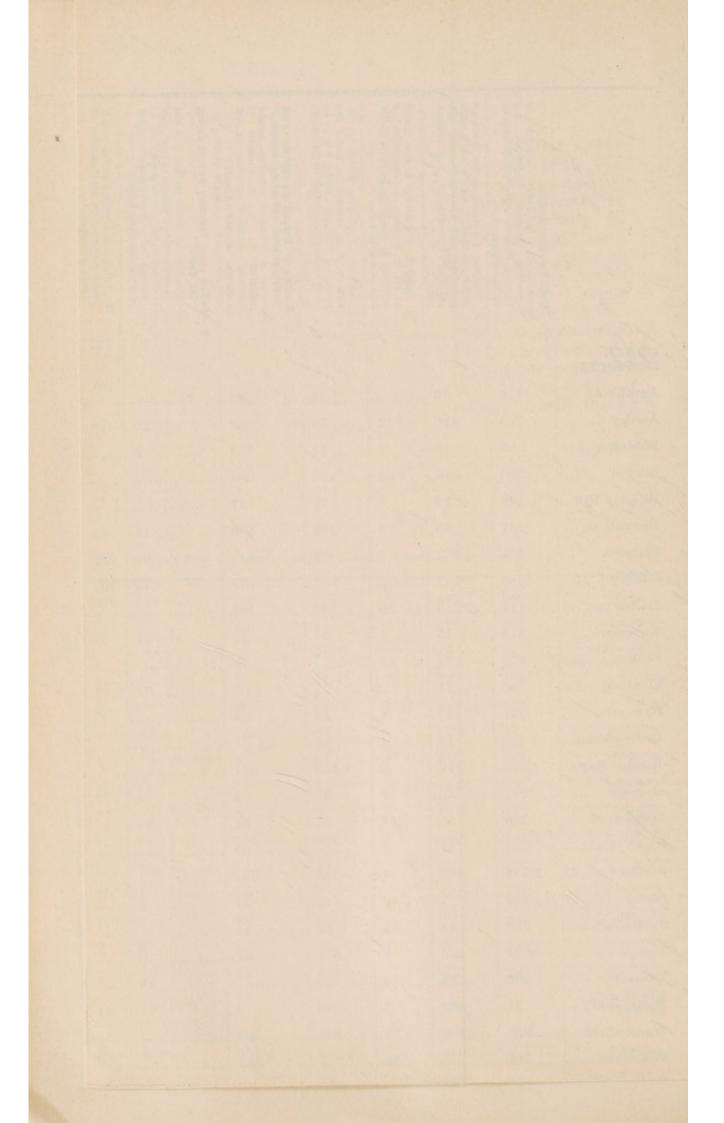
BILSTON.—The Report contains a Table and Report showing the houses built since 1919, prepared by the Architect, and the M.O.H. makes the following comments:—

"The report, although encouraging from some points of view, from the point of view of numbers and the actual final affect of the building for the year is disappointing.

"I pointed out last year that normally we need an annual increase of 127 houses to meet the increase of population and to allow for the demolition of old buildings becoming derelict. These figures were arrived at from statistics taken over a period of 8 years.

"In the period under review there were built 106 new houses but when we take into consideration that 40 houses were closed or demolished our gain for the year is only 57. The increase in population is 319, demanding, at five persons per house, an additional 78 houses from this source alone but when we realise that we have lost 49 additional houses

																	30 (a)
	1.—Unit Dwelling House. Inspection: (1) Total Number of Dwelling Houses inspected for Housens Defects (under Public Health or Rossing Acts).	(2) Number of dwelling houses therinded under sub-head (1) above, which were inspected and recorded under the Housing Concollidated Regulations, 1925.	(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human baltation.	(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-bend) found not to be in all respects reasonably III for human habitation.	2.—Remedy of Detects during the Year without Service of terms Notebels. Number of defective dwelfars houses resolved its in consequence of informal action by the Local Authority or their Local	2.—Action under Statutory Powers during A.—Proceedings under section 3 of the Houseless Art. 1920. (1) Number of dwelling houses in respect of which notices were served requiring repairs.	(2) Number of dwelling houses which were residered fit after service of formal notices :	(a) By owners. (b) By Local Authority in default of owners.	(3) Number of dwelling houses in respect of which Closing Orders became oversitive in pursuance of declarations by owners of intention to choose.	B.—Proceedings under Public Health Arts. (1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied.	(2) Number of dwelling houses in which defects were remedied after service of formal notices :	(a) By owners. (b) By Local Authority in default of owners.	C.—Proceedings under sections 11, 14 and 15 of Housing Act, 1925. (1) Number of recessentations under with a view to the making of Cooling Order.	(2) Number of dwelling houses in respect of which Cooling Orders were made.	(3) Number of dwelling hotses in respect of which Colonia Orders were determined, the dwelling houses having been rendered fill.	(4) Number of dwelling houses in respect of which Denseltion Orders were made.	(3) Number of dwelling houses denoklohed in parsuance of De- molition Orders.
URBAN DISTRICTS																	
Amblecote	133	76		24	25	İ	(a)	(6)		***	(a)	(6)					
Audley		116	1	76	29	28			3	19	18					8	
Biddulph		18	1	15	32	1				3 2	2 2		1	1			
Bilston		316	62	450	303					204			12	12	2	6	5
Brierley Hill		32	5	77	31								5	1			
Brownhills		6.5	3	169	153	14											
Cannock		492	6	273	147	31							6				
Coseley		*271			139	113									**********		
Darlaston		*218	20	241	194	6				641			8	9	***********		
Kidsgrove		15	4	31	12	14				6				-			220000
Leek		64	- 64										5				
Lichfield	80	71		71	39	37	34	2	1	9							
Newcastle		110	4	20	18					263							
Quarry Bank	60	10	4	20													
Rowley Regis.	1,278	410	2	1,139	871						293	96					
Rugeley	247		9	87	77	2	2			16	16		8	8			
Sedgley	786	23	17	27	94	25	17	1		63	57	2	17	17	3	16	16
Short Heath	230	61	2	********	59					59	59		2	2		2	2
Stafford	1,572	166	1	783	534	1				249	218		1	1			
Stone	150	7	3	45	31	3	3			13	13			1			
Tettenhall	756	48	12	32	41				3	276	276		3	3	1		
Tipton	1,024	193	3	674	61								10	10	3	3	3
Uttoxeter	202	38	9	32		. 19			7				7				
Wednesbury	51	422	57	89	. 9	51	41							27	6		6
Wednesfield	960	499	31	395	293	53	35	8		1,035	996	16	31	31	5.		6
Willenhall	564		36	201	198		3			240	26		35				
Wolstanton	59	45		45					45	29	29						
Totals	12,420	4,086	356	5,399	3,466	398	403	11	68	3,693	2,994	114	151	127	25	35	46
RURAL DISTRICTS																	
Cannock	1,125	210		120	77					120	77				3		
Cheadle	2,661	59	16	53	129	5	4		1	186	29		16	5	1		******
Gnosall	76		4	3	39	3	4			22	19			******			******
Kingswinford .	329	*162	*********			1	1			387	319		2	2	1		1
Leek	270	28			17	45	45			27	27		2		2		
Lichfield	1,981	338	5	186	104	82	78						5	5	**********		
Mayfield	115	115			. 3										***********		
Newcastle	764	160	11			. 11	11	******			46		4	4	4	******	******
Seisdon	127	18		18	18					36	35				********		
Stafford	39	25	6	17	10	5	5		6						*********		
Stone	760	147		12	42		3	******		112	106	******	2	2	********		
Tutbury	890	11		11	41	3	3					******			********		
Uttoxeter	80	31		18	18			******		27	24	*****					
Walsall	292	13	1	54	67	1	1			161	110	22	1	1	*********		
Totals	9,509	1,318	43	503	862	166	155		7	1,124	792		32	19	11		1



through disuse, you will readily recognise that we are losing ground not improving, unless the rate of building progress is increased.

"It is interesting to note that the figure 127 arrived at last year from statistics as mentioned above exactly fits the case this year.

"Simply stated, we need 127 and we got 57, or less than half of our requirements.

"The most pleasing feature of the report will be found as is only natural in the last few lines, I note that 216 new houses were in hand on January 1st, 1929."

BRIERLEY HILL U.D.—"With the completion of the houses which the Council are having built, of the non-parlour type, we shall be in a position to deal with the houses which were scheduled at the 1919 Survey. Many are incapable of reconstruction and should be closed. I am sure the Council would be prepared to consider any reasonable scheme of reconstruction which the owner can produce to render the particular house fit for habitation."

CANNOCK U.D.—"There is still a shortage of houses. Instances of two families in a house are numerous."

Darlaston U.D.—"It is certainly desirable that more houses should be provided as rapidly as possible as there is still a great deal of overcrowding and small court houses of an undesirable type which should be closed as circumstances permit. The matter is dealt with at greater length in your Housing Inspector's Report."

LICHFIELD CITY.—" (a) The general standard of housing is fair.

"(b) Defects in structure, ventilation and other insanitary conditions are found in a few houses. Statutory notices are served on the Landlords where necessary.

"As a rule the notices are ultimately acted upon."

Newcastle M.B.—"With regard to the three representations made by the Medical Officer of Health last year dealing with unhealthy areas, it is hoped that one Scheme (Fletcher Street Area) will be dealt with during 1929."

Quarry Bank U.D.—" Although much has been done to reduce overcrowding in the district it is still so prevalent as to be a serious menace to health and morals. In my opinion the demand is still for some hundreds of small houses at a much lower rental than is charged for the present Council houses. Nothing could be much worse than what is quite commonly found. Young couples married or desirous to marry are forced either to live apart or to take a room or perhaps two rooms in a family often already over-crowded. There they share in common the washhouse kitchen (if any) and sanitary accommodation with little or no privacy and unable to reach their bedroom except by passing through the living-room or even the bedroom of the other occupants."

Sedgley U.D.—"There is an overwhelming demand for houses at an all-in rental of from seven to eight shillings per week which can only be met by Council enterprise with a substantial addition to the rates.

"Our housing accommodation is however, more than sufficient to meet all requirements from persons employed in the district. The improved and rapid means of transport now existing enables a large number of our residents to follow their occupation over a wide industrial area, including Birmingham, Cannock, Brierley Hill and the intervening districts. In the circumstances the situation at the present time does not warrant the placing of further charges on the rates."

SHORT HEATH U.D.—"At the census, 1921, with a population of 4,469, there were 864 inhabited houses, giving an average of 5.2 persons per house. In 1928, with an estimated population of 5,039, the number of inhabited houses at the end of the year was 1,052, giving an average of 4.8 persons per house.

"The Council have 36 houses in the course of erection in Haley Street, which will be completed by September, 1929. In addition, plans for eight houses have been approved by the Council, and these must also be completed before the end of September next."

Stafford M.B.—"At the end of 1928 the Corporation had completed 604 houses in the nine years commencing 1920. During the same period, 337 had been built by private enterprise, making a total of 941. There were still 136 houses to be completed on the Stone Road Estate. When these are finished it is proposed to pause for a time to see what private enterprise will do. At present private building appears to be slowing down, and it is very doubtful if houses to let at suitable rents will be forthcoming from this source.

"Forty of the houses on the Stone Road Estate have been ear-marked for the more necessitous applicants. They are three bedroomed houses let at 9s. per week inclusive of rates, and will do a great deal to meet the needs of this class.

"A few applicants remain, who are seriously overcrowded, but are unacceptable for even these houses. In one of the worst cases a man and wife with five young children live in a bed-sitting room.

"There is another group of cases now coming to light, where the overcrowding is bad enough to justify action under the nuisance clauses of the Public Health Acts, but the tenant refuses to apply for a larger house. These cases are reported to the Housing Committee (who are unable to act in the abscence of an application for a house) and to the Public Health Committee, who serve a notice for the abatement of the nuisance. Usually this simply results in the tenant undertaking to send some of the children to lodge with neighbours, which I suspect is only a temporary plan to evade the notice.

"It seems a pity that there is no power to remove children who are suffering from such overcrowding to one of the Guardians' institutions.

"The proposals to adopt some scheme of house management, similar to the Octavia Hill system, was considered by the Council. A deputation from the Housing Committee visited Chesterfield to see the scheme in operation there. Later, Miss Jeffrey, manager of the Regent's Park Estate belonging to the Commissioners of Crown Lands, addressed the Guild of Social Welfare, and, on another occasion, the Housing Committee, on the subject.

"Unfortunately, the committee decided not to proceed with the scheme, apparently on the ground that it would be too expensive.

"If it is right to move families in poor circumstances from insanitary conditions into houses with modern conveniences let at uneconomic rents, it is a pity to stint this further expenditure, which seems necessary to ensure that the best use is made of the houses.

"In addition to rent collection and ordinary management of the property the manager would:—

- "(1) Select new tenants after personal investigation of their existing home conditions, so as to group them with others of more or less the same standard.
- "(2) Encourage them to improve in response to the better environment. (Here the advantage of a woman manager in maintaining close touch with the housewife is obvious.)
- "(3) Arrange for tenants who have proved themselves worthy of a better house to move, say, from a pre-war type to one with a bathroom, etc."

STONE U.D.—"Four houses have been built during the year, but there are still many houses in the district which are not absolutely unfit for habitation are on the border-line, and in my opinion the erection of 50 more houses of a cheaper type than the present would go a long way towards solving the housing problem for many years."

Tipton U.D.—"It is true that there are a number of dwelling houses in the parish, the conditions of which, and the state they are in, warrants a Closing Order being placed thereon, but similar difficulties have to be met with in Tipton as in many other districts of an analagous character, especially that of finding alternative accommodation for the inmates of such dwellings, so that anything approaching drastic clearance of such property is for the moment hardly conceivable."

UTTOXETER U.D.—"The housing scheme is a serious question for the consideration of this Council. The number of houses built is quite inadequate for the people requiring them. As soon as a house is built there is a scramble for possession. At least 120 houses are urgently needed. So long as such a condition exists the idea of doing away with overcrowding and the old insanitary and dilapidated slum property is out of the question. You cannot turn people out of their miserable surroundings if they have nowhere to go."

Wednesbury M.B.—" It is gratifying to be able to state that considerable progress has been made in the provision of dwelling-houses, a total of 122 houses having been erected and occupied, whilst a further 80 are in course of construction. Of the 122 mentioned, 114 were provided by the Local Authority and distributed as follows:—

 Mestycroft Site
 ...
 ...
 80

 Churchfield Site
 ...
 ...
 34

 Private Enterprise
 ...
 ...
 8

"This contribution to the housing needs is no mean achievement, but despite this, there is still a pressing need for more houses. It was felt by the Council that the time had now arrived for the provision of houses which could be let at a rental within the means of the less well paid workers, and it is to this aspect of the case that very careful attention has been given. The Borough Surveyor designed two types of houses to comply with this need and to let at 7s. 3d. per week and 8s. per week, both inclusive of rates and water charges. These are well-constructed modern working-class dwellings, and it is proposed to build a total of 190 on the Mestycroft site. The policy of the Council of improving existing property is being continued the figures dealing with this will be found in the report of the Sanitary Inspector. In addition, a club and a de-licensed public house were converted into houses, and Bye-laws were made for the control of the houses let in lodgings. On the other hand, there is a considerable number of Closing Orders still outstanding, including the Hall End Improvement Scheme; these matters, however, are occupying the attention of the Council."

Wednestield U.D.—"The housing situation within the area does not present any disquieting features. From the Public Health point of view overcrowding may be regarded with some degree of equanimity. There are, no doubt, a few cases, but I understand these will be dealt with in the early future. The percentage I should imagine would be very low. On the reasonable assumption that prevalence of overcrowding may be judged from the evidence of the people concerned, I am venturing an analysis of the year's waiting list for Council Houses. As these people are most anxious to obtain houses, one may safely assume that in very few instances will the conditions be understated.

"There were 242 applicants for houses at the end of the year. Of this number 51 were Wolverhampton residents, and 44 from other surrounding districts. At an early meeting the Council reduced this number by 45. The balance, 197 less 57 cases from outside areas which do not concern Wednesfield, is tabulated in the following manner:—

Average number of persons per bedroom.

1 per 1.5 per 2 per 2.5 per 3 per 3.5 per 4 per 4.5 per room. room. room. room. room. room. room. room. room. 15 19 33 9 25 10 19 2 5 per 6 per

5 per 6 per room. room. Total, †3 1 *136

+-Includes 1 van dweller.

*—Deficiency of 4 owing to lack of information on forms."

WILLENHALL U.D—"A considerable shortage of houses still exists in spite of the number of new houses erected during the year. The number of applicants on the waiting list for Council houses at the present time is approximately 500."

Wolstanton U.D.—"In Wolstanton, which is partly residential in character, the houses are of comparatively recent date and are, for the most part, in good condition. In Silverdale and Chesterton, which are occupied largely by the artisan and working classes, the houses are, speaking generally, rather older and many present defects which, however, are capable of remedy.

"According to the housing survey made in 1919, 134 houses were required to meet the unsatisfied demand. The number of houses required for all purposes taking into account growth of the population for the years 1920, 1921

and 1922 being 1,000. During the years 1920 to 1928 inclusive, 516 houses of the type specially dealt with in the survey and 156 of other types have been erected. Therefore, leaving out of consideration any increase of population there may have been since 1922, the present housing shortage for all purposes is 328.

"The present policy of the Council is to encourage the number of subsidy houses which, it is hoped, will mitigate the shortage."

KINGSWINFORD R.D.

"Fitness of Houses.—The general standard of houses is very fair. The chief defects, as before, being leaky roofs and defective spouting and bad unpaved yards. Three hundred and twenty-five houses have been erected by the Council since 1919. All of them are occupied. Further Housing Schemes are being considered by the Council. One scheme has been approved and work is being started immediately."

LEEK R.D.—"The subject of housing continues, but is not so urgent as in past years in this area. There is now no great shortage and it is encouraging to note that in many instances conditions of old dwellings have been improved. Private enterprise continues as in previous years. Cases of overcrowding which have been dealt with during the year resulted from members of the family in tenancy marrying often without the means to set up or support a home, thus encroaching on previously limited living accommodation."

STONE R.D.—" In my opinion the housing conditions are fairly satisfactory.

"There is little overcrowding now. The Council have, during the year, erected 14 houses and 35 have been built privately."

UTTOXETER R.D.—"Slight overcrowding still prevails at Rocester, and I consider it very essential that 12 new houses should be constructed at an early date to overcome the house shortage.

"In the Parish of Draycott the same applies, but to a slighter degree where two new houses would meet the demand.

"In the remaining Parishes the conditions are better, and the rate of building meets the demand."

WALSALL R.D.—"There is still a considerable amount of overcrowding, and to relieve this, houses with moderately low rents are still urgently required. Due to lack of housing accommodation, there is serious overcrowding. This fact explains several cases where houses not fit for habitation are at present occupied."

Inspection and Supervision of Food.

(a) Milk Supply.—During the year, 1,126 samples of ordinary milk were chemically examined; 95 of these were not satisfactory; prosecutions were instituted in 17 cases and were sustained. Four samples of skim milk were analysed and were satisfactory. Ninety-four samples of specially designated milk were chemically analysed and three samples of Grade A milk were found to be unsatisfactory.

Seventy-eight cases of tuberculous milk were found in samples taken during the year by the County Council's Inspectors, and the usual action under Section 4 of the Milk & Dairies Act, 1915, followed, 39 cows being slaughtered under the Tuberculosis Order, one died, and 10 were disposed of by the owners for slaughter.

Eighty-two representations under Section 4 of the Milk & Dairies (Consolidation) Act, 1915, were made by Medical Officers of Health outside the County, and as a result of the veterinary inspections, 48 animals were slaughtered under the Tuberculosis Order, two died, and seven were disposed of by the owners for slaughter.

Thirteen representations under Section 4 of the Milk & Dairies Act, 1915, were made to outside authorities of milk sent in to the county for sale, from which samples were taken by the County Council's Inspectors. All these cases were investigated by the authorities concerned, in nine instances with negative results.

As was explained in last year's report, the scheme for taking samples of milk systematically throughout the Administrative County was started in the middle of the year and so the accompanying table does not show the figures for the calendar year but for the period from the 1st March, 1928, to the 28th February, 1929. The Table gives the number of samples taken in each sanitary district of ordinary milk, not specially designated milk, from milk sellers on their rounds so that each sample represented milk in the condition as it is sold to the public. 1,346 samples

were bacteriologically examined, of which 944 were reported as clean and 475 were unsatisfactory. Eighty-three were tuberculous. It was found that the milk from 394 farms was not satisfactory, of which 44 were not in Staffordshire.

ORDINARY MILK SAMPLES.
1st March, 1928, to 28th February, 1929.

SANITARY	No. of Samples	Result of	Examination.	T.B.
AUTHORITY.	Submitted.	Clean.	Unsatisf'tory	Found
URBAN.				
Amblecote	15	4	11	
Audley	22	18	6	2
Biddulph	42	32	10	***
Bilston	31	25	9	3 2
Brierley Hill Brownhills	26	14	14	
n	36 25	$\frac{21}{20}$	15 6	
Coseley	11	9	4	2 2
Darlaston	5	1	4	
Kidsgrove	29	22	11	4
Leek	46	38	9	1
Lichfield	43	26	20	3
Perry Barr	2	1	1	
Quarry Bank	8	6	4	2
Rowley Regis	26	21	7	2 2 1
Rugeley	20	10	11	1
Sedgley	42	26	16	
Short Heath	10	9	1	1
stafford	79	50	33	6
stone	17	11	6	***
ramworth	28	17	14	3
rettenhall	28	18	10	***
Fipton	21	16	7	2
Uttoxeter Wednesbury	29	23 4	11	5 2 1
TT 1 01 11	14 13	10	11 3	1
Wednesfield Willenhall	35	18	19	2
Wolstanton	40	33	10	3
RURAL.	40	00	10	
Blore Heath	24	16	8	
Jannock	81	63	21	4
Cheadle	69	47	25	3
nosall	15	11	4	
Kingswinford	30	15	16	1
Leek	13	7	6	
Lichfield	80	60	26	8*
Mayfield	7	4	4	1
Newcastle	15	13	4	2
eisdon	32	27	10	5
stafford	58	43	16	5 1 2
Stone	35	23	14	2
Camworth	17	15	3	1
Putbury	41	29	14	3
Uttoxeter	43	34	9	3
Walsall	43	34	12	3
Totals	1346	944	475	83

^{*} Two Samples from same producer.

With regard to the tuberculous milk samples, the milk was produced in the county in 70 instances, and outside in 12.

In last year's report it was stated that there had been a steady improvement in the cleanliness of the milk examined and again this year I am glad to be able to record that this improvement has been maintained, and it will be seen on reference to the Table that 70% of the samples were clean. As in former years, the practice of sending the names of producers whose milk was not found to be satisfactory to the County Farm Institute has been continued, so that they could have the advantage of expert advice. This scheme has, I think, on the whole worked well and that more attention has been paid to the production of clean milk is obvious from the figures quoted. The amount of tuberculous milk found during the year is roughly 6%, and I regret that I cannot record any great improvement in this matter, but as the subject is now being considered by the Public Health Committee it is needless to make any further reference to it at the present time.

At the beginning of 1928 licenses had been granted for the production of the following graded milks:—One for certified milk, three for Grade A (Tuberculin Tested), and twenty-two licenses for Grade A milk. During the year, four more Grade A (T.T.) licenses were issued by the Ministry of Health and twenty-six Grade A licenses were granted by the County Council. On the 31st December, however, the records show that the holder of the Certified Milk license had relinquished it, as well as one of the seven who hold Grade A (T.T.) licenses from the Ministry of Health, so that at that date there were six Grade A (T.T.) licenses and 46 ordinary Grade A licenses, though the actual number of Grade A licenses issued by the County Council was 48, and the number given is due to the fact that two of the producers applied for and obtained licenses to sell Grade A (T.T.) milk.

As in former years, the practice has been continued of taking samples of all graded milks at monthly intervals for bacteriological investigation to see if the standard of cleanliness laid down in the Regulations was maintained. From the 1st March, 1928, to the 28th February, 1929, 597 samples were examined, of which 525 were satisfactory and 72 were not. Tubercle bacilli were found in four samples of milk.

During the last four years there has been a steady increase in the popularity of graded milks by the public. At the end of 1925 only four licenses for the production of Grade A milk had been issued and there were no holders of licenses for the production of the other kinds of graded milk. At the time that the Regulations for graded milks were issued, one often heard it expressed that the public would not be likely to demand such kinds of milk owing to the increased cost, but the experience gained has been quite otherwise as will be seen in the statement already given of the number of licenses now in force. The fact that these milks are examined at frequent intervals, and that quarterly veterinary inspections of the herds are made, ensures that the standard required by the Regulations is maintained, and on comparing the results of the bacteriological examinations for cleanliness of the graded milks and the ordinary forms, it is easy to understand the increasing popularity of the former.

(b) MEAT AND OTHER FOODS.—In the annual reports of each District Medical Officer of Health an account is given of work undertaken in the supervision of the food supply. Speaking generally, much attention is given to this work, but in several of the rural areas it is stated that owing to the large number of small slaughter houses and the distance they are apart, it has not been an easy matter for the Inspector to be present at the time of the slaughter or immediately afterwards, and the difficulty has been increased by the time of slaughter, in many cases, being in the evening. In the Stone rural district it is stated that the Inspectors' time is so fully occupied with their other duties that little meat inspection is possible. In this area there is a Surveyor and Sanitary Inspector, who has an assistant in both offices, and no doubt it will be possible when the County Council assume responsibility for the roads, for their work to be reorganised so that they may be able to give far more time to meat inspection.

(b) The work under the Food and Drugs Act is summarised in the following Table, in which is shown the number of samples taken and any action necessary :-

					e	7		Prosecu	tions
Lineta SCIMAN SCIMAN AND AND AND MARKETTANIAN AND AND AND AND AND AND AND AND AND A				No. of Samples Submitted	No. Genuine	No. Adulterated	Cautions.	Instituted.	Convict'ns
Arrowroot				3	3				
Bacon				7	7	2	2		
Butter				20 65	18 65				
ake Flour				1	1				
Camphorated Oil				2	2	***			
Candied Peel				1	$\frac{1}{2}$				
Cheshire Cheese Chicken & Ham R	oll			2	1				
Coffee				6	6				
Compound Licorie	e Po	wde	er	1	1				
Cornflour				3	3				
Cream Oripping				10 2	10 2				
Egg Flour				2		2		2	
Flour				1	1				
Flour (Self Raising	g)			19	19				
Ginger (Ground) Jam (Blackcurran	61			19	18	1	1		
Jam (Damson)				2	1				
Iam (Raspberry)				î	1				
Jam (Rasp. & Goo				1	1				
am (Strawberry)				2	2		***		
Telly (Blackberry)			***	1 59	59				
Lemon Cheese				1	1				
Lemon Curd				1	1				
Milk				1,092	1,007	85	68	17	1
Milk (Appeal to co Milk (Certified)				34	24	(a)10	10		
Milk (Condensed)				1	1				
Wilk (" Grade A ")			80	77	3	3		
Milk (" Grade A	Tul	erc			0				
Tested '') Milk (" Pasteurise	a m			8	8				
Milk (Skim)				4	4				
Milk Chocolate				1	1				
Mincemeat				2	2	***		***	
Nutmeg	•••	•••	****	1 3	1 3				
Oatmeal Olive Oil				1	1				
Pastes (Potted)				17	17				
Pea Flour				1	1				
Pearl Bar ey				23	2 23				
Pepper Pickles				1	1				
Polony				1	1				
Pork Pie				2	2				
Rice			•••	9 8	9.	***		***	
Rice (Ground) Sausage				30	27	(b) 3		"1	
Sausage (Luncheo				1	1				
Semolina					5				
Sponge Sandwich				1 2	1 2				
Tapioca Sponge Sandwich				1	1				
should senterment				. 3	3				
Vinegar			***	0	0	1.11		***	

⁽a) The attention of the producers was called in these samples. Eight were deficient in solids-not fat, and two deficient both in fat and solids-not-fat.

(b) Two samples unofficial followed by official samples leading to

prosecutions.

Prevention of, and Control over, Infectious Disease.

SMALLPOX.—In 1928, 150 cases of smallpox were notified, one case in an old man proved fatal, but, generally speaking, the disease was the mild form which has been prevalent for so long in this country. The mildness of the disease to some extent accounts for its spread, and owing to the lack of direct communication between this county and the neighbouring one of Derbyshire, where the disease has almost become endemic, we have until this year had very few cases to record. In 1928 the disease has been chiefly centred in the north-west part of the county; there were 56 cases in Wolstanton Urban District, 25 in the neighbouring Borough of Newcastle-under-Lyme, eight in the adjacent Audley Urban District, and one in Kidsgrove. These areas account for 90 out of the 150 cases notified. The other cases occurred in the following districts:—

Leek U.D	 	 12
Cheadle R.D	 	 7
Stone U.D	 	
Stafford M.B	 	 7
Lichfield City	 	
Brownhills U.D.	 	
Tamworth R.D.	 	
Walsall R.D	 	
Wednesbury M.B.		
Short Heath U.D.	 	 14

The cases from the northern part of the county were sent to the North Staffs. Joint Smallpox Hospital at Bagnall. That from Stone went to the Yarnfield Smallpox Hospital, whilst the others were dealt with at the Moxley Smallpox Hospital belonging to the South Staffs. Joint Smallpox Hospital Board, except the two cases from the Walsall R.D., which were admitted to the Walsall Smallpox Hospital.

SCARLET FEVER.—The incidence of this disease in the County was similar to that of 1928. There were 1,231 notifications, 787 being in Urban Districts and 444 in Rural Districts, In the Urban Districts the disease was not so prevalent as it was last year, but there were six deaths, the same as in 1928. The 444 cases in the Rural Districts compare with 368 last year and all these ended in recovery. The type of disease continues to be mild and the death-rate is only 0.01 in both urban and rural districts.

DIPHTHERIA.—During the year, 973 cases were notified as against 719 last year. The increase was chiefly in the Urban Districts where there were 674 cases compared with 494 in 1927. Two hundred and ninety-nine cases were notified in Rural Districts as against 225 in the previous year. This disease, as has often been noted, is more severe than scarlet fever, and again this year as in last, there were 38 deaths in Urban Districts with a death-rate of 0.07 per thousand of the population. Twenty-two cases died in the Rural Districts, which yields a death-rate of 0.10. On reference to the tables at the end of the Report, the numbers and death-rates for each sanitary district will be found.

Owing to the prevalence of this disease in three districts in the south of the county, the desirability of "Schick" testing and the immunisation of susceptible children was discussed with the District Medical Officers of Health, and arrangements were made for the County School Medical Inspector of the area to co-operate with the District Medical Officer of Health in this work, each District Council paying for the material used. As the work did not actually start until the beginning of 1929, full details of the working of the scheme cannot be included in this report.

During the year 8,481 swabs were sent to the County Laboratory by the medical practitioners in the area as compared with 7,206 last year. Virulence tests were also undertaken at the Laboratory when necessary.

ENTERIC FEVER.—Twenty notifications of typhoid fever in Urban and 32 in Rural Districts were received by District Medical Officers of Health during the year. There were six deaths in Urban Districts and two in Rural Districts. On reference to the tables at the end of the report, the areas in which cases occurred will be seen.

ENCEPHALITIS LETHARGICA.—Sixteen cases have been notified, 14 in Urban and two in Rural Districts, There were 18 deaths in Urban and three in Rural Districts. Six cases in Urban Districts and one in a Rural District were not notified previous to death. The cases occurred in 15 sanitary districts and, fortunately, the disease showed no tendency to spread, but the type was severe, and 21 out of the 23 cases died. The districts in which the cases occurred are shown in the table at the end of the report.

Dysentery.—During the year, 138 cases of dysentery were notified in the Rural Districts. The majority of these were in two mental hospitals, 101 cases occurring at the Burntwood Hospital and 35 at the Cheddleton Mental Hospital. Specimens from the former were sent to the County Laboratory, where it was found that the disease was due to Flexner bacillus. At the same time this epidemic occurred there was an outbreak of typhoid fever in the same Institution, 17 cases being notified.

With reference to non-notifiable infectious diseases. the deaths from measles, whooping cough, diarrhoea and enteritis, are as follows:-

Measles.—There were 39 deaths in Urban Districts with a death-rate of 0.07, and nine deaths in Rural Districts with a death-rate of 0.04. As the disease is not notifiable we have no record of the number of cases, but, compared with last vear the disease was less fatal in the Urban Districts, whilst in the rural areas there were nine deaths compared with six in 1927. In considering these figures it is important to remember that, as was pointed out last year, epidemics of the disease tend to occur in populous areas about every three years, so that fluctuations in the death-rates must be expected from year to year.

Whooping Cough.—In 1928 there were 15 deaths in Urban Districts with a death-rate of 0.03, and seven deaths in Rural Districts with a death-rate of 0.03. The low deathrates from this disease this year are to some extent accounted for by the fact that in the previous year there were several severe epidemics of whooping cough in the county, and in Urban Districts alone 121 deaths occurred compared with 15 this year, this comparatively small number being due to the fact that children susceptible to this disease contracted it in the previous year at the time the epidemic occurred.

DIARRHEA AND ENTERITIS.—There were 76 deaths in Urban Districts, the same as last year, with a death-rate of 7.7 per thousand births. In the Rural Districts 21 children died from this disease which yields a death-rate of 5.4 per thousand births. The cases occurred in 21 out of the 29 Urban Districts, and in 10 of the 17 Rural Districts, and, with the exception of Sedgley Urban District, where the death-rate was 23.2, there was no real epidemic of the disease.

INFLUENZA.—In 1928 there were 93 deaths in Urban Districts and 23 in Rural Districts. Compared with last year this disease was much less prevalent in both Urban and Rural Districts, for in 1927, 378 deaths in Urban Districts and 154 in Rural Districts occurred, and it did not break out in epidemic form in any special area of the county.

The numbers of cases of Notifiable Infectious Diseases with the deaths, in the Administrative County during 1928, are as follows:—

Dise	0.000		Notifica	ations.	Dea	ths.
Dise	ases.		Urban.	Rural.	Urban.	Rural.
Small-pox		 	 140	10		1
Scarlet Fever		 	 787	444	6	
Diphtheria		 	 674	209	38	22
Enteric Fever		 	 20	32	6	2
Puerperal Fever		 	 21	10)	
" Pyrexia		 	 - 64	32	17	4
Erysipelas		 	 232	81		
Cerebro-Spinal Fe	ver	 	 4			
Poliomyelitis		 	 2	1	1	1
Pneumonia		 	 942	197	432	131
Encephalitis Leth	argica	 	 14	2	18	3
Dysentery		 	 	138		

Tuberculosis.

1. Incidence of and Mortality from Tuberculosis.

At the end of the year there were 6,228 cases of all forms of tuberculosis on the registers of the district Medical Officers of Health, made up as follows:—

TOTAL	P	ULMONAR	Y,	Non-Pulmonary.				
CASES.	M.	F.	Total.	М.	F.	Total.		
6228	2402	2125	4527	879	822	1701		

This indicates that there is one case of tuberculosis in every 114 persons, or just over 8.7 per 1,000 of the population, and on reference to the mortality Tables which follow it will be found that approximately one death occurs amongst nine cases in the year.

During the year, 423 persons died from pulmonary tuberculosis, giving a death-rate of 0.59 per thousand of the population, whilst 99 deaths occurred from other forms of tuberculosis with a death-rate of 0.14. The ages at death divided into sexes are shown in the following table:—

Table showing primary cases of Tuberculosis and deaths from the disease classified according to ages and sex.

A on Dunrana		NEW	CASES			DEA	THS.	
Age Periods.		onary.		on- nonary.	Pulm	onary.		on- onary
	M.	F.	M.	F.	M.	F.	М.	F.
0	1	3 7	11	14	_	1	11	11
1	8		48	43	1	5	8	10
5	46 29	21 32	47 23	42 19	} 5	11	11	10
5	50 51	68 72	9 9	18 14	} 42	68	7	3
25 35	118 76	97 48	9 8 5	15	95	79	6	8
5	54 26	29 12	1 2	3	34	36	5	6
35 & upwards	7	4	ĩ	1	13	3	1	2
Fotals	466	393	164	171	220	203	49	50

On reference to the Table at the end of the Report, the death-rates for each Sanitary District during 1928 will be found.

The following show the number of primary notifications received since 1913:--

	1														
1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
1722	1399	1233	1048	873	856	699	642	929	971	1029	974	1232	1400	1106	1194

An account of the treatment afforded for tuberculosis will be found in the Annual Report of the Joint Committee of the County Council, Wolverhampton and Dudley County Boroughs.

There has been a decrease in the deaths from all forms of tuberculosis this year compared with 1927, in which year 465 persons died from pulmonary disease and 156 from other forms of tuberculosis. The reduction in the number of deaths from pulmonary disease is more marked in the Urban than in the Rural Districts, whilst for other forms of tuberculosis the number of deaths has fallen equally in both Urban and Rural areas. Whilst too much importance should not be attached to the variation in the number of deaths from year to year, I am glad to be able to state that in this county, as in the country generally, the gradual decline in the number of deaths from this disease has continued. The death-rate for pulmonary disease in Urban Districts for this year is the lowest ever recorded, and for other forms of tuberculosis the same remarks apply for Urban Districts, whilst for Rural Districts the rate has also fallen, but two years ago the death-rate was slightly lower.

This fall in the death-rate from tuberculosis is most encouraging and should stimulate the District Councils, where the incidence of the disease is highest, to redouble their efforts in improving the environmental conditions of their area.

2. Notification.

Compared with last year there has been an increase in the notifications of both pulmonary and non-pulmonary tuberculosis, but a reduction in the death-rate. This is all to the good because it suggests that we are getting in touch with the cases at an earlier stage, and this is borne out by the report of the Joint Committee for Tuberculosis who are responsible for the treatment of this disease.

County Bacteriological Laboratory.

As will be seen in the Table, the work of the County Laboratory continues to increase. As in former years, the results of the examination of specimens have been classified under the various diseases for which the investigation was required, and the numbers indicate to what extent the medical practitioners rely upon the work of the laboratory in the conduct of their work. Whilst the numbers shown must of necessity vary with the incidence of infectious disease in the County, this must not be taken to mean an increase in that respect, but it exemplifies the fact that with modern technique practitioners find that they can place greater reliance upon the work of the laboratory in assisting them in the diagnosis and treatment of disease. Recent legislation affecting milk has also contributed to the increase, and the modern tendency to link up human with veterinary bacteriology has added to the work of the laboratory, and increased its importance from the Public Health point of view. In addition, the local authorities within the Administrative County tend to use the bacteriologist more than formerly, especially for the bacteriological examination of food and water supplies.

	Diphtheria.	Tubercle.	Enteric Fever.	Cerebro-Spinal Fluid and Swabs	Ring-worm.	Malaria.	Dysentery.	Other E. aminations
Commencement of Scheme, Oct. 20,	-		-			-	-	-
1898, to June 30, 1899	212							
From July 1, 1899, to June 30, 1900	378	***						
From Jan., 1900, to June 30, 1900		23	9					
From July 1, 1900 to June 30, 1901	730	100	74					
., , 1901 ., ,, 1902	571	92	61					
,, ,, 1902 ,, ,, 1903	668	122	49				***	
. ,, 1908 ,, ,, 1904	507	148	41					
,, ,, 1904 ,, ,, 1905	747	136	32					
., ,, 1905 ,, ,, 1906	755	159	āl					
,, ,, 1906 ,, ,, 1907	1485	202	63	7				
a ,, , 1957 ,, ., 1908	1603	150	39		***			
,, ,, 1908 ,, ,, 1909	970	203	150		***			
,, ,, 1909 ,, ,, 1910	1255	249	69	***	100		***	
b ,, ,, 1910 ,, ,, 1911	1961	252	85					
c ,, ,, 1911 ,, ,, 1912	1346 724	266 533	2174	***	***	***		***
,, ,, 1912 ,, ,, 1913 ,, ,, 1913 ,, ,, 1914	1698	638	45 55	12	***		***	***
1014 1015	1689	520	78				***	***
1015 1016	1071	430	42	32	***	***	***	
1016 1017	1162	541	43	31	***	***		***
1017 1019	1426	763	31	48	***			***
1019 1010	797	825	27	46		***		1
1010 1090	2656	1106	361				***	8
", ", 1919 ", ", 1920 ", Dec. 31, 1920	1539	388	27	2				2
Ton 1st 1991	2509	631	112	6		2		76
f ,. ,, 1922	1643	681	23	4	30	6	4	21
,, ,, ,, 1928	2080	885	198	27	218	11		19
,, ,, ,, ,, 1924	7281	1006	74	11	262	10	1	97
,, ,, ,, 1925	5875	1488	45	14	501	31	4	340
,, ,, ,, 1926	5462	1673	295	18	604	13	6	621
g ., ., ., ., 1927	7206	1516	292	18	499	12	108	2057
	8481	1639	656	19	360	6	762	4486
Totals from commencement of			1					
Scheme to Dec. 31st, 1928	66487	17865	3339	307	2474	91	885	7728

- a From this year onwards, excluding Smethwick, now a County Borough.
- b Excluding five Pottery Towns which with Hanley, now constitutes the County Borough of Stoke-on-Trent.
- c Handsworth added to Birmingham C. B., November 9, 1911.
- d Including 109 Special Blood Examinations from Cheddleton Mental Hospital.
- e Including 336 blood against B. typh, and A. and B. para-typh. from Cheddleton Mental Hospital.
- f Portion of Administrative County transferred to Stoke-on-Trent County Borough as from 1st April, 1922.
- g Portion of Administrative County transferred to Wolverhampton County Borough as from 1st April, 1927.
- h Portion of Administrative County transferred to City of Birmingham and West Bromwich County Borough as from 1st April, 1928.

The number of general bacteriological specimens examined at the laboratory during the year was 16,409, an increase of 4,701 over the previous year, which was mainly made up by an increase of 1,275 in the number of diphtheria swabs, 2,193 milk examinations and 654 examinations under the heading "Dysentery." In addition, there was a slight increase of the work all round.

Under the heading "Other Examinations" are included 3,747 examinations of milk, 137 of water, eight meats for tuberculosis, one swab for actinomycosis and one swab for meningococci. Details of the milk examinations are given in the paragraphs dealing with Graded milks and the Milk & Dairies Act. Under "Other Examinations" is also included a specimen of human blood serum for B. Abortus, and as several instances have recently been reported of infection of human beings by this micro-organism, this investigation is now available as a routine at this laboratory both for man and animals.

The remainder of the "Other Examinations" involved the isolation of various micro-organisms from human and animal sources.

During the year, in addition to the routine work, two special research investigations were undertaken and published.

Among the 137 samples of water referred to above were included several special investigations, concerning one of which a Ministry inquiry was held and the findings of the laboratory confirmed.

The increase in the examinations under the heading "Dysentery" is partly accounted for by the fact that the tests for B.Dysenteriae are now adopted in this laboratory as a routine and for purposes of exclusion, but nevertheless a proportion of this increase is due to the occurrence of an epidemic during the year in an institution stiuated in the Administrative County.

Venereal Diseases.

As full details were given of the County Council's scheme for treatment in the Survey Report of 1925, it will only be necessary to state this year that the work has continued as on former lines, and that there has been no increase in the number of clinics during the year.

The following table shows the number of examinations of specimens made at the County Laboratory during each quarter of the year:—

Examinations of Pathological Specimens made at the County Laboratory under the Venereal Diseases Scheme during the year 1928.

Fo	r Detection	of	For Wassermann	Other Examina-	Total
	Spirochetes	Gonococci	Reaction.	tions.	10041
1st Quarter.		165	384	31	580
2nd Quarter		147	331	14	492
3rd Quarter		152	388	17	557
4th Quarter		186	359	14	559
TOTAL	- Marie V	650	1462	76	2188

In addition to the above, five bottles of vaccines were made for outside authorities, and 692 Sigma Reactions were done during the year. The Sigma Reaction is now conducted in addition to the Wassermann Reaction as a routine in this laboratory when the amount of serum received is sufficient to permit of the two examinations, and, under special circumstances, the Kahn test is also available.

Under "Other Examinations" are included 16 Cerebrospinal Fluids for Cell count, Globulin, and Colloidal Gold Test; 45 Complement Fixation Tests for Gonorrhæa; the examination of two Prostatic Fluids, six urines, and the making of seven cultures.

In the following table the numbers treated during the year are set forth, which include cases from the County who attend Clinics outside the area:—

STAFFORDSHIRE CASES TREATED FOR VENEREAL DISEASES DURING THE YEAR 1928.

Clinic	Syphilis	Soft Chancre	Gonorrhosa	Non-Venereal	Total	Attendances
Birmingham General Hospital Bristol (Royal Infirmary) Derby Dreadnought Hospital Green-	13 	= 1	19 1 2	$\frac{24}{1}$	56 1 4	2487 10 46
wich Dudley Guest Hospital	22	=	67 1	34	1 123 1	5104 13
Kidderminster Lichfield Stoke-on-Trent (N.S.R.I.)	1 11 44 4	=	1 11 51 26	3 7 14 9	5 29 109 39	784 2203 580
(Shelton) Stourbridge (Corbett Hospital) Walsall	16 16	=	14 12	20 31	50 59	2884 1475
Hospital	215	<u> </u>	116 322	104	308 785	7916 23508

At the end of 1928 there were 31 medical practitioners authorised to receive free supplies of salvarsan or its substitutes for the cases of syphilis in their practice; eight doctors on the list availed themselves of this provision during the year.

When comparing the total number of cases treated at the clinics with previous years, it was found to be almost stationary. This year 785 cases were dealt with as compared with 758 in the previous year; 247 of these, however, proved not to be suffering from venereal disease. A proportion of the non-venereal patients have previously had the disease and apply periodically to find out if they are free from infection; others are sent for exclusion purposes. On the other hand, each year some increase has been observed in the number of attendances. This year the figure was 23,508 as against 21,945 last year. This is in every way satisfactory, for it shows that the patients have confidence in the treatment afforded, and are willing to continue attending the clinics and do not disappear when their symptoms abate

as was the case when the scheme started. Unfortunately, in this disease, protracted treatment is required, and there is a long interval during which, from the patient's point of view, he or she is apparently cured, but when, in fact, he or she remains in an infectious state and is, therefore, able to transmit the disease to others.

It will be seen that in the Table several clinics are mentioned which are outside the area of the Administrative County. They are included in the Table because patients domiciled within the Administrative County went there for treatment.

Negtoiations are in progress with a view to obtaining better accommodation and more efficient treatment at two of the Institutions at which County patients attend. The question of more constant and prolonged intermediate treatment is also under review.

Maternity and Child Welfare.

1.—Provision and Inspection of Midwives. The work undertaken under the Midwives' Acts, 1902, 1918 and 1926, relates to the whole of the Administrative County with an estimated population at the middle of the year of 711,100, whilst the health visiting work is limited to the special health visiting area of the county which now has a population of 306,150, a decrease of 1,008, owing to the transfer of Perry Barr Urban District partly to the County Borough of West Bromwich, the City of Birmingham, and the Borough of Sutton Coldfield.

276 midwives notified their intention to practise during the year. Of these, 263 are trained and 13 are bona-fide midwives. The bona-fide midwives have decreased by nine since last year, and the trained midwives have increased by 11, the total number of midwives being two more than last year. In addition to those, 89 midwives residing in County Boroughs and adjoining counties have also notified their intention to practise within the Administrative County.

The ages of midwives who were practising in the Administrative County in the ten years 1919—1928 are indicated in groups in the following table:—

	21	to 45		45	to 65		65 and	lupw	ards			
YEAR	North	Central	South	North	Central	South	North	Central	South	North	Central	South
1919	 30	31	40	46	43	24	26	27	21	102	101	85
1920	 50	50	61	36	20	22	19	24	15	105	94	98
1921	 58	52	60	28	22	23	21	21	16	107	95	99
1922	 51	64	68	21	21	21	14	16	14	86	101	10:
1923	 55	59	66	21	27	18	14	16	11	90	102	9.
1924	 50	56	62	22	26	19	14	11	12	86	93	9.
1925	 54	64	63	27	24	23	13	8	10	94	96	90
1926	 50	63	74	26	26	15	13	9	9	89	98	98
1927	 55	57	72	26	30	15	6	5	8	87	92	9
1928	 58	60	79	24	29	13	3	5	5	85	94	9

As regards the number of cases attended by midwives during 1928 in the three areas respectively, the figures are as follows:—

	No. of Midwives.	Births attended	Total Births.	Percentage attended by Midwives.	Mean num- ber of cases attended per Midwife.
North	 85	2103	3105	67.7	24.7
Central	 94	3029	3928	77.1	32.2
South	 97	5391	6709	80.3	55.5

The total number of cases attended by midwives only in the Administrative County during 1928 was 10,523, the total number of births registered being 13,742. It thus appears that midwives attended 76.5 per cent. of the total births in the County, the percentage for the previous year being 74.2.

In compliance with the rules of the Central Midwives' Board, 3,102 notifications have been received from certified midwives.

The following figures show the number of notifications under four headings received during the past eight years, together with the number of births attended by midwives:—

			1				1	1
	1921	1922	1923	1924	1925	1926	1927	1928
Number of Births attend-								
ed by Midwives Sending for medical	12800	13033	11637	11382	11780	12201	10282	10523
help	1948	1992	1894	2083	2219	2523	2561	2764
Still Births	244	245	230	211	190	208	212	208
Death of Mother	4	1	5	4	11	20	6	13
Death of Child	39	29	20	61	60	70	115	117

The following figures show the causes which occasioned the sending for medical help:—

	1			
Causes of sending for Medical aid.	Northern District.	Central District.	Southern District.	Total.
PREGNANCY:				
Abortion	32	31	25	88
Threatened abortion	18	10	8	36
Puffiness of face and hands	5	_	9	14
Premature birth	9	13	1	23
Fainting	2	3	7	12
Varicose veins	8	2	11	21
Fits	_	_	5	5
Vaginal discharge	1	_	6	7
Unsatisfactory condition	5	17	15	37
Excessive sickness	1	7	10	18
Loss of blood	2	11	10	23
History of previous still-births				
and abortions	1	3	22	26
Odema of legs	4	10	15	29
Albuminuria	14	9	33	56
Sore of genitals	1	1	5	7
Contracted pelvis	12	-	14	26
	-	115		
	115	117	196	428
LABOUR:				
Abnormal presentation	49	32	103	184
Delayed or difficult	103	234	339	676
Placenta prævia	5	9	8	22
Hæmorrhage ante	20	17	54	91
Ditto post	17	15	36	68
Eclampsia	4	1	1	6
Prolapse of cord	5	5	3	13
Lacerated perinæum	88	131	208	427
Retained placenta and mem-			100000	
branes	17	16	48	81
Unsatisfactory condition	9	19	6	34
Inertia	14	28	_	42
Contracted pelvis		2	4	
Purulent discharge	1	1	_	6 2 4 7
Cough Albuminuria	3	1	_	4
Albuminuria		9	To an area	7
	4	3	-	1
	4	3		

Causes of sending for medical aid.	Northern District.	Central District.	Southern District.	Total
LYING-IN:				
High temperature	25	28	43	96
Inflamed and painful leg	1	14	6	21
Convulsions	2	_	W	2
Unsatisfactory condition	11	15	18	44
Offensive lochia	1		2	3
Unusual swelling of breasts Abdominal swelling and	1	1	9	11
tenderness	1	2	4	7
	42	60	82	184
HILD:		Transition of the last of the		
Deformities	7	3	15	25
Convulsions	6	1	6	13
Inflamed & discharging eyes	24	28	93	145
Feebleness and prematurity	27	60	103	190
Unsatisfactory condition	12	28	9	49
Rash	2	1	9	12
Pemphigus	3	2 2 3	5	10
Spina Bifida	5	2	10	17
Hare lip and cleft palate	2 3 5 2 2	3	6	11
Club foot	2	2	7	11
Serious skin eruption	1	-	2	3
Injuries during birth	_	1		1
Jaundiced	2	1		2
	93	131	265	489
Grand Total	589	822	1353	2764

In the following Table, in which the County is divided into three districts, the numbers of Midwives practising, with the notifications received from them, together with the visits, interviews and inquiries of the Inspectors of Midwives, are shown: --

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	1	1	Feeding.	:	00		00
		1	noidostn: Artificial	-			1
			Contact	19	36	34	88
		and	Laying o	1	6.1	4	-
		I.	Puerpera Fever.	च	1	10	21
	Inquiries	ths	Child.	63	-	-	10
	Ing	Deaths	Mother.	1	0.1	00	9
		·sq.	ein nia	16	21	47	84
			inflamm io dois	37	39	127	203
		.92	Medical	47	32	88	267
	-		Feeding.				
			aioilidaA	26	40	10	76
-			Contact with infection	23	36	34	9.1
2		and	Laying o	9	10	10	21
	ns.	13	Puerpera	4	00	10	22
	Notifications.	ths	Сһіід.	355	42	40	117
	Notifi	Deaths	Mother.	01	00	00	13
	-	.sda	seni Bir	55	22	96	208
			mmslinI H to noit	24	28	93	145
		,90	Medical Assistan	589	8555	1353	2764
		'sA	Intervier	373	375	455	1203
						-	15
			Visits.	446	426	470	1342
	of 928		Un- trained.	70	4	4	13
	Mean No. fidwives, 1		.benisaT	80	06	93	263
	Midw		no, on Jaid	500	94	16	276
			District.	North	Central	South	Totals

In addition to the routine inquiries conducted by the Midwives' Inspectors, four irregularities were specially investigated. Of these, one midwife was reported to the Central Midwives' Board by the Local Supervising Authority for neglecting the rules, who decided that a report should be furnished on the practice of the midwife in three and six months' time, and three were cautioned by the County Medical Officer.

Since the Act came into operation, the names of 111 midwives have been removed from the Roll as a result of action taken by the Local Supervising Authority. Fortunately, the number of irregularities that have been reported is decreasing each year, as one would expect with the better type of midwife now practising.

During the year the death of one practising midwife was reported.

In the following table particulars as regards equipment, &c., of certificated midwives are set forth:—

PARTICULARS AS TO EQUIPMENT AND EFFICIENCY OF MIDWIVES VISITED.

District.	Requirements			No. reasonably		No, who can-			
	Bags Equipped		Case Books	clean as to		Read	Read	Pasa	General Efficiency
	Fully	Partially	Forms	Person	Home	Ther- mometer	and write	Catheter	
North	83	2	85	84	84	85	84	80	80
Central	91	3	94	94	94	94	93	91	92
South	93	4	97	97	97	97	95	93	93
Totals	267	9	276	275	275	276	272	264	265

During the year six district nursing associations were subsidised to the extent of £171 15s., and at the end of 1928 there were six midwives receiving subsidies, a decrease of one since last year. At the end of the year there were 64 local nursing associations affiliated to the County Nursing Association, which undertake midwifery, and eight non-affiliated local nursing associations undertaking the same service. Two new affiliated nursing associations were formed during the year for Caverswall and Castle Church.

The post-certificate course of training at the Tipton Training Home for practising midwives, which started in November, 1925, has been continued. Eight midwives in private practice and twelve midwives from the local nursing associations have attended the course, which is of a fortnight's duration, and under the scheme, each practising midwife will be given an opportunity of attending the course every four years.

Under the Rules of the Central Midwives' Board, a midwife has to send for medical help if any abnormality occurs, and in the Midwives' Act, 1918, provision is made for the payment of the doctor called in in this way, the fees allowed being according to a scale issued by the Ministry of Health.

During the financial year ending March 1929, 2,874 notifications of sending for medical help were received, and out of this number medical practitioners claimed their fees from the County Council in 1419 cases, that is, 49% of the possible claims.

The fees paid by the County Council are as follows:-

FEES PAID TO MEDICAL PRACTITIONERS UNDER MIDWIVES ACT, 1918.

Financial Year.	No. of Notifications of sending for Medical Aid.	No. of Claims received.	Percentage of Claims received to Notifications.	Total amount paid to Doctors during year.	Amounts recovered from Patients during year.		
1925—26	2228	780	°/ _o 35	£ s. d,	£ s. d. 366 9 9		
1926—27	2641	1147	43	1702 19 3	408 4 6		
1927-28	2556	1136	44	1598 5 9	503 1 0		
1928-29	2874	1419	49	2053 0 6	599 12 3		

The cost of collection is £200 per year. It will be observed that each year there has been an increase in the percentage of claims of fees from doctors in proportion to the number of requests for medical assistance. On the other hand, during each year, there has been an increase in the amount recovered from patients.

No alteration has taken place in the income scale, which was drawn up for the guidance of the Collector when making application for the recovery of the fees, which is as follows:—

- (i.) Where the net weekly income of the family after deducting 3s. 6d. for each child under 14 years of age does not exceed 30s., the County Council shall not claim repayment of the medical practitioner's fee.
- (ii.) Where the net weekly income of the family, calculated as above, is over 30s, but does not exceed 45s., the County Council shall claim repayment of one-half of such fee.
- (iii.) Where the net weekly income of the family, calculated as above, exceeds 45s., the repayment of the whole of such fee shall be claimed.

Owing to the varying charges made for mileage by the medical practitioners, an arrangement has been made with the Local Branch of the British Medical Association for a uniform mileage fee of 1s. 6d. per mile one way only after two miles from the doctor's residence.

2 -WORK UNDER THE HEALTH VISITING SCHEME -

As already mentioned, the County Health Visiting Area serves a population of 306,150, which includes 13 urban districts, 14 rural districts, two parishes comprising part of a rural district in Shropshire, and the parish of Dudley Castle Hill.

In April of this year the Perry Barr Urban District was transferred to the County Borough of West Bromwich, the City of Birmingham, and Borough of Sutton Coldfield.

There has been no alteration in the scheme during the year which was fully described in the Survey Report.

(i.) Combined Clinics.

At the end of December, 1928, there were 25 combined School Clinics and Infant Welfare Centres, and five Infant Welfare Centres, four of which are in the Seisdon Rural District; the remaining one is held at Portobello Wesleyan School, Willenhall, and was opened at the end of the year to augment the large combined Clinic in the centre of Willenhall. At 11 of the larger centres the Committee have provided equipment for ante-natal work, as was explained in last year's report. The midwives are encouraged to bring their patients to these Clinics for examination, but as no treatment is afforded, if this is found to be necessary, the midwife is advised to call in the family doctor so that the Clinic does not in any way take over the responsibility of the midwife in this matter.

In the County Health Visiting Area, there are three voluntary centres, namely, at Mayfield, Rocester and Tutbury, who work quite apart from the County Council scheme.

In the Table at the end of the report will be found details of the work of the Centres.

In 1928, 680 attendances were made by expectant mothers compared with 511 in the previous year.

20,080 children under one year, as against 19,642 in 1927; and 21,942 as against 18,953 children between one and five years, attended the Centres.

It will be seen from the above figures that there has been an increase in the attendances at all ages. The larger number of attendances made by expectant mothers is worthy of note because it indicates the extent to which the midwives are co-operating with us in ante-natal work, as well as showing that the mothers themselves realise much more than formerly the importance to them of the work of the Centres. During the year a special effort has been made to increase the attendances of children between one and five years of age, because, from experience obtained at the medical inspections of children entering school, it was obvious that many conditions found ought to have been dealt with at an earlier age, and therefore it is gratifying to be able to record a substantial increase in the attendances of these children. Those of children under one year remain substantially the same as last year, as one would expect, for, from the very beginning of the scheme, special attention has been paid to children under one year.

The names and addresses of the centres are as follows:-

Aldridge ... Assembly Rooms. ...

... Primitive Methodist Schools. Audley ...

... Church Hall. Biddulph ...

Brockmoor St. John's School.

Brownhills Mount Zion Primitive Methodist

Schools.

Cheadle ... Charles Street Weslevan School. ... Codsall ... Trinity Free Chapel School, Codsall.

... Wesleyan Sunday School. Harriseahead

... Town Hall. Kidsgrove ...

... Wesleyan Methodist School, Moss Kingswinford

Grove.

... The Old Conservative Club, Dark Kinver

Lane, Kinver.

Lichfield ... Mill House, City Station Road.

Lower Gornal ... Memorial Hall.

... Craddock Memorial Schools. Norton Canes

Pelsall ... Weslevan Central Hall.

... St. Philip's Church Rooms, Penn Penn

Fields.

... St. James' United Methodist School. Pensnett

... Primitive Methodist School, New Quarry Bank

Road.

... Congregational Sunday School, Rugeley

Heron Court, Rugeley-

... Bleak House. Sedgley

Short Heath ... Church Institute.

Talke New Road Wesleyan School.

Tamworth ... Wesleyan Schools, Victoria Road.

... Congregational Sunday School, Uttoxeter

Carter Street.

... Primitive Methodist School, Lich-Walsall Wood

field Road.

... Church Institute. Wednesfield

Willenhall Nurses' Home, Walsall Road.

Willenhall.

Portabello ... Wesleyan School, Brickiln Street

... Wombourn Institute. Wombourn ...

... Primitive Methodist School. Wordsley ...

At these Centres the work is chiefly educational, and the cases requiring treatment are sent to their family doctor, except crippling conditions and those who must be seen by an ophthalmic surgeon. With regard to the former, 79 cases as against 65 last year were sent to Orthopaedic, Hospitals for out-patient treatment in the first instance, seven being treated as in-patients. In addition, seven more patients recommended for in-patient treatment in the previous year were dealt with.

The following is a list of diseases treated :-

Genu valgum				3
				20
				7
	777			6
				9
		•		2
		•••		11
				4
				1
Genu valgum Rickets Knock Knees Infantile Paralysis Flat Feet Talipes equino varus Bow Legs Club Foot Congenital Torticollis Partial Dislocation of Tarsus Thickening of Metatarsal bones Talipes calcanens Congenital Talipes Palsy of right arm Weakness of right Tibialis Anticus Deformity of Leg Dislocation of Left Hip Metartarsus Varus Fractured Leg Injury to Left Elbow at birth Inverted Feet Spina Bifida Deformity of Sterno Mastoid Muscle		1		
Thickening of M	letatars	al bon	ies	1
Talipes calcanen	s			1
Congenital Talip	es			2
Palsy of right a	rm			1
				1
	d			1
				1
	-			1
				1
				1
		it birt.	h	1
				1
Spina Bifida				1
				1

In two instances no treatment was advised.

The ophthalmic surgeon of the Education Committee examined and treated 10 cases of squint as against 11 in the previous year. In the last report, the necessity was pointed out for such cases being dealt with when so young by giving suitable treatment as soon as the condition was recognised to prevent the squinting eye losing its power from dis-use.

(ii.) Health Visitors.

There are now 36 whole-time Health Visitors on the staff who serve a population of 227,999. These Health Visitors serve the more thickly populated portions of the County Health Visiting Area, except in the Rural Districts of Cheadle, Leek, Kingswinford, Tutbury and Walsall. In the remainder, the work is undertaken by 46 part-time Health Visitors, serving a population of 78,151. These are district nurses employed by district nursing associations.

The arrangement for the instruction of the health visitors has been continued this year. On appointment, each is attached to the health visitors for the Sedgley area for one month, and during the winter months, lectures are given at Stafford on various subjects connected with the health visitor's work.

The visits paid by the health visitors during the year are as follows:—

To expectant Mothers ... (1) First visits, 1,884.

(2) Total Visits, 5,554

To infants under 1 year .. (1) First visits, 5,180.

(2) Total visits, 43,456.

To children 1 to 5 years Total visits, 82,651.

No maternity homes have been established by the County Council as yet, but they have arrangements with the Mrs. Legge Memorial Home, Wolverhampton, for dealing with prospective unmarried mothers, who are received at the home for their confinement and remain there for six months. The County Council contribute 40/- per patient for six weeks, the cost for the remainder of the period being defrayed from philanthropic sources. By this means, 7 cases were dealt with in 1928.

In addition, arrangements have been made for midwifery cases to be sent from the Health Visiting Area to the following Maternity Homes:—Ashbourne, Newport, Bath Road Maternity Home, Wolverhampton, and Tipton Maternity Home.

Under the Nursing Homes Registration Act, 1927, those already registered under the Midwives' & Maternity Homes Act, 1926, were continued, and at the end of the year there were 17 on the register. During the year five applications for registration were received, of which four were granted. In three instances an application for allowing an increase in the number of beds was allowed and four Certificates of Registration were cancelled, in two instances because the keepers had left the county and in the remaining two because the registered house was no longer used as a Maternity Home. With four exceptions, these Homes are registered for only one or two beds.

During the year £9 0s. 0d. was allowed by the County Council, under Section 2 (1) of the Midwives and Maternity Homes Act, to midwives as compensation for loss of practice on suspension after being in contact with a septic case, the midwife not being in default.

Infantile Mortality.

In 1928 the infant mortality rate was 62 per thousand births, as against 80 last year, and in Urban Districts the rate was 65 compared with 84 in the previous year, and in Rural Districts 55 as against 69. In England and Wales the 1928 infant mortality rate was 65 compared with 71 last year.

The midwives during the year have reported 117 deaths of infants during the first 10 days of life, the causes of death being grouped as follows:—

			15
			10
			14
			9
matur	rity		59
			1
			4
			1
			4
	 matuı 	maturity	maturity

These deaths occurred in the practice of midwives and the number has no relation to the infantile death-rate which is calculated on the total number of deaths under one year per 1,000 births, the total number of such deaths in the Administrative County being 860. The infant mortality in the Administrative County for 1928 is the lowest yet recorded, and it is gratifying to note that the reduction is found in the Urban as well as the Rural Districts. It is chiefly due to the fact that the incidence of infectious diseases is notably less this year compared with last, but as in previous years there has been no substantial alterations in the number of children who die from prematurity, congenital defects, and such like causes. Unfortunately so far we have been unable to suggest measures that will effectively reduce the deaths from this class of case, but as the matter is being actively investigated everywhere, we can hope that at no distant date suitable measures will be available.

Maternal Mortality.

In the accompanying table it will be seen that the maternal mortality rate for this year is 3.6, and as was noted in the previous report it has remained substantially at this figure over a long period of years. In last year's report an account was given of the measures that are being taken to reduce this loss of life from childbirth, when it was explained that many deaths could be prevented by adequate ante-natal care in addition to other measures. portance of ante-natal care is now well recognised by the practising midwives, who are making every possible effort to induce their patients to come to them several months before the expected confinement. During the year the Midwives' Inspectors, in paying their routine visits, inquired at what period of pregnancy the patients register with each midwife, and the result of their investigation is as follows :-

	Northern Area. Percentage.	Central Area. Percentage.	Southern Area. Percentage.
Under 6 months	 10.9	19.3	31.7
0 11	 21.2	29.8	28.9
7 months	 31.9	29.7	23.6
8 months	 23.9	17.2	13.1
9 months	 12.0	3.9	2.6

It will be observed that in the southern area the patients tend to come to the notice of the midwife much earlier, though in the others the Inspectors have noted a very substantial improvement in the attitude of women in this matter. The southern area, however, where there are only 15% of cases booked during the last two months of pregnancy, is chiefly urban in character, and there are more ante-natal clinics in that part of the county than elsewhere. In the rural areas it is only to be expected that it would be more difficult for ante-natal work to be started, and this is borne out in the figures already quoted, but, as in the near future it is proposed to establish several clinics in rural districts, it is hoped that they will give the necessary stimulus in the development of ante-natal work.

		Death	Maternal			
Year.	Births.	Puerperal Fever.	Other Diseases and Accidents of Parturition.	Mortality per 1,000 births.		
1919	15,101	27	40	4.4		
1920	20,116	26	63	4.4		
1921	18,848	24	44	3.6		
1922	16,394	21	42	3,8		
1923	15,342	20	40	3.9		
1924	15,546	15	28	2.7		
1925	15,241	15	32	3.1		
1926	14,535	19	45	4.4		
1927	13,856	25	27	3.7		
1928	13,742	21	29	3.6		
Mean for 0 years	15,872	21	39	3.8		

With regard to the deaths of mothers from other accidents and diseases of parturition, 13 were reported by midwives as having occurred in their practice out of a total of 27. It is now the duty of a midwife to notify the death in her practice even if she attends as a maternity nurse, but if the case has been removed to hospital and died there we should not have been informed by the midwife, so that our record of the causes of death under this heading is incomplete.

The causes of the 13 deaths reported by midwives are as follows:—

A.P.H. Transvers	se Lie—	unde	elivered	 1
Concealed Hæme	orrhage			 3
Eclampsia				 1
Embolism				 1
Pelvic Abscess				 1
Pneumonia				 3
Previous Disease				 1
Shock following	A.P.H.			 1
Shock following	Instrum	ent	Delivery	 1

TUERPERAL FEVER AND PUERPERAL PYREXIA REGULATIONS.

In last year's report it was explained that the new Regulations dealing with these conditions defined Puerperal Pyrexia as meaning any febrile condition occurring in a woman within 21 days after childbirth or miscarriage, in which a temperature of 100.4 or more had been sustained during a period of 24 hours or has recurred during that period. This definition was made purposely wide so that medical practitioners would have no difficulty in notifying a case for, until the new Regulations were issued, experience had shown that many cases had turned out eventually to be Puerperal Fever and not come to notice owing to the interpretation of the definition of that condition. effect of the Regulations has been that many more notifications of febrile conditions in connection with childbirth are now received whilst there has been a reduction in the notifications of Puerperal Fever since the latter condition is included under the more comprehensive condition classified as Puerperal Pyrexia. When a practitioner notifies a case of Puerperal Pyrexia he is asked to state if he thinks it desirable that —:

(1) a second opinion should be obtained;

(2) there should be a bacteriological examination of

(a) lochia; (b) blood;

(3) the patient be removed to a hospital;

(4) a trained nurse should be provided.

The County Council has made the necessary orders to provide these services. They have appointed Consultants who can be called in, who live at convenient centres in the Health Visiting Area, and have arranged with general hospitals to take in suitable cases. The bacteriological investigations are made at the County Laboratory, and if a trained nurse is required to nurse the patient at her home

the County Nursing Association have undertaken to provide that service. The extent to which these facilities were used is as follows:—

Second Opinion—7 cases. Sent to Hospital—14 cases,

and one case that was nursed at home and had a special nurse provided.

During the year 112 cases of rise of temperature which occurred in the practice of midwives were specially investigated by the Midwives' Inspectors and the conditions to which this was due were as follows:—

Adherent Placenta				2
Ante-Partum Hæmo	rrhage			2
Breast Abscess				2 2 3
Bronchitis				3
Cellulitis				2
Chill				9
Congested Lung				1
Cracked Nipples				1
Exophthalmic Goitre	9			1
Engorged Breasts				2
Enteritis				2
Food Poisoning				1
Gall Stones				1
General Condition U	Insatisf	actory		9
Gonorrhœa				1
Impetigo				1
Inflamed Breast				1
Inflamed Leg				2
Influenza				15
Injury at Labour				2
Mastitis				8
Nephritis				1
Offensive Lochia				2
Perinial Tear				3
Pelvic Abscess				1
Pelvic Cellulitis				1
Pleurisy				2
Pneumonia				5
Pneumonia (Lobar)				1
Previous Disease				7
Pyelonephritis				1
Quinsy				2
Retained Clot				2
Salpingitis				1
Salpingitis (Gonorrh	eal)			
Sapraemia				7
Scabies				1
Septic Absorption				2 7 1 2 1
Septic Leg				1
Thrombosis				1
Tuberculosis				1
		1	4.4.4	

It will be observed that in several instances the rise of temperature could not be definitely associated with the puerperal state, and, although these special investigations have taken up much time of the Midwives' Inspectors, there is little doubt that they were worth while and have resulted in no case of septic condition of the genital tract being overlooked. In each case the midwife, according to her rules had to call in a medical practitioner who, if he thought that the condition came within the definition of Puerperal Pyrexia, notified it to the Medical Officer of Health, and the notifications were made as follows:—

Puerperal Pyrexia Notifications, 1928.

	1	n Healt	h N	ot in H	ealth	
Tieban Districts				isiting A		
Urban Districts Rural Districts		29 19	•••	35 13		00
					-	
						96

The notifications of puerperal fever, as has already been noted, are less than last year, for although the practitioner could notify a case of this kind, many have not done so, as the case has already been notified under the Puerperal Pyrexia Regulations. During the year 31 cases were notified in the Administrative County as follows:—

Puerperal Fever Notifications, 1928.

		ot in H isiting	Total
Urban Districts Rural Districts	 6	 15	 21
			31

STILL-BIRTHS.—208 still-births were reported by midwives, associated with the following conditions:—

Albuminuria		 '	7
Ante-Partum Hæmor	rhage	 1	
		 1	-
		 10	
		 1	
		 25	
		 8	
Maceration .		 47	1

Malpresentation				16
Placenta Prævia				3
Premature				12
Spina Bifida				5
Unsatisfactory Cond	ition of	Motl	ner	22
Injury during Birth				3
History of previous s	till-birt	hs		
and abortions				3
Inattention at Birth				4

OPHTHALMIA NEONATORUM.—The accompanying Table shows the cases for the last five years, together with those treated at hospitals or at home, with the result obtained. It will be seen that out of 145 cases, 143 were completely cured, which is a very highly satisfactory result in view of the virulent nature of this disease. It will also be noted that only a small proportion of children were sent to hospital, 7 had to be received as in-patients, whilst in 9 cases out-patient treatment sufficed.

		CASES.						
	Notified	Trea	ted.	Vision	Vision	Total	Deaths.	
	Notified	At Home Hospital		impaired	impaired	Blind- ness.	Deadils	
1924	109	89	20	107	1		1	
1925	138	96	*42	135	1		1	
1926	166	149	†17	162	3		1	
1927	166	135	‡31	162	3		1	
1928	145	129	§16	143			2	

* One case removed from district; result not known.

† 12 In-Patients, 5 Out-Patients. ‡ 13 , 18 ,

"

W. D. CARRUTHERS,

County Medical Officer of Health.

Stafford, August, 1929.

TABLES

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, Tuberculosis, Diseases of the Respiratory Organs, &c.

URBAN.

	Birth			9	9	9	-	01	10	60	01	-	g1	:	-		0
		Congenital Debilit	0.58	0.46	1.26	0.96	0.37	0.62	0.75	0.83	1.02	0.47	1.12	1	0.5	:	0.70
	oi	Acute and Chron	0.58	0.33	0.11	0.19	0.52	0.38	0.39	0.16	0.25	0.47	0.16	09.0	0.35	1.02	0.23
	2	Oirrhosis of Live		:	:	90.0			:	9.04	0.05	:	0.16	0.24	:	i	
	S	Other Respirator Diseases	:	90.0	0.34	0.09		0.14	0.14	0.23	0.10			:	0.17		0.23
(8	mio	Pneumonia (all f	:	0.39	0.57	1.44	0.37	0.29	0.89	1.31	0.82	0.00	79.0	1.32	0.97	1.02	0.58
		Bronchitis	0.58	0.26	0.23	1.05	1.18	98.0	0.33	0.55	0.87	0.19	0.28	0.84	0.48	1.02	0.23
	211	Cancer, Malignal Disease	1.16	119	0.92	68.0	.48	0.82	1.09	0.83	1.64	.04	2.18	.40	.28		0.70
	SI	Other Tuberculor Diseases		0.06	0.11	0.13	0.07	0.14	0.11	80.0	25	0.09	0.39	67	0.17 1	:	23
		Tuberculosis of Respiratory Syst	0.58	0.46	0.46	54	0.66	0.43	0.44	0.71	0 10.	38	0.56	.84	.02	:	.35 0.
	Per 1000	Diarrhosa, &c.	0	4.0	6.7 0	4.1 0	4.4 0	0.1	3.8	9.6	4.5 1	4.8 0.	0	6.7 0.	1.2 1	:	0
		Diphtheria,	- 18.	20	:	0.03	22 1	0.05	80.0	0.20	0.02	-	:	:	0.09	:	-
ality	ion	Cough		0	:	0.09 0	0	0		0	0	. 60.0	0.00	0.12	0.04 0.	-	0.47
mortality	population	Scarlet Fever Whooping	-	:	-	.0	i	:	- :	:	:	.0	0.05 0.	.0	0	:	11 0.
Zymotic	of	Measles	-:	-:	23	61	: 2	-:	.:	:	:	.: 61		:	:	-	.0
Zyı	r 1000		-	- :	0.5	0.1	0.1	-	0.02	:	-	0.1	0.16	-	:	:	:
	Per	xoqlism8	:	- :	:	:	:	.:	:	:	:	:	:	:	:	:	:
_		registered births Enteric Fever		:	:	:		0.02	0.03	:	:	:	:	:	:	:	
(oot -	Mortality in childi under one year per	64	69	108	96	13	63	59	65	72	38	85	40	65	77	78
	цтв	Standardized De Rate		9.5	:	11.6	10.5	9.6	9.2	11.3	12.3	:	12.8	:	11.7	:	
1	u be	General mortaliti	15.1	9.4	9.0	11.3	10.6	9.6	9.4	11.3	11.8	8.1	13.4	13.2	12.2	11.2	8.1
	00	Birth-rate per 10 of population	18.7	16.3	17.0	25.0 11.3	20.6 10.6	19.0	21.8	20.5	22.6	19.8	18.3	17.8	21.0 12.2	13.2	18.0
	впо	Numbers of Perse	5.1	1.8	1.5	16.7	13.3	3.3	4.4	6.7	21.4	3,5	12.2	2.4	12.8	6.0	12.8
tion	2000	Estimated to middle of 1928	3,426	15,140	8,706	31,210	13,510	20,770	35,830	25,220	19,520	10,520	17,860	8,316	22,560	*980	8,528
Population	110 000	Census 1921	3,182	14,738	7,931	27,556	12,479	18,248	32,322	24,213	18,208	9,488	17,214	8,393	20,410	2,700	7,824
	DISTRICT		Amblecote	Audley	Biddulph	Bilston	Brierley Hill	Brownhills	Cannock	Coseley	Darlaston	Kidsgrove	Leek	Lichfield	Newcastle	*Perry Barr	Quarry Bank

pearus occurring unity the year 1920, crassined according to Diseases and Localities, together with Births occurring during the year.

URBAN.

Diseases ill-defined	-	:	:	-	:	:	:	:	:	:	-	:	:	:	:	
Other Defined Diseases	17	35	8	73	61	37	54	553	51	14	333	16	41	0.1	14	
Other Deaths from Violence	-	9	4	122	10	18	18	12	9	60	00	10	12	1	-	
Suicide	- :	:	:	70	1	1	di	C1	1	1	:	:	4	:	-	
Malformation, Premature Birth	- 4	[-	11	30	10	13	27	21	20	70	20	:	13	:	9	-
Diseases of Pregnancy and Parturition Congenital Debility and	:	-	-	:	:	61	-	:	:	;	-	1	П	:	:	-
Puerperal Sepsis Other Accidents and	-:	64	:	-	:		01	24	:	:	-	:	:	- :	-	-
Acute and Chronic Nephritis	61	13	-	9	1-	00	14	4	70	10	00	10	00	-	6.1	
Cirritosis of Laver	:	:	:	64	:	:	:	-	_	:	00	6.1	:	:	:	
Appendicitis and Typhlitis	:	1	:	03	1	-	60	1	:	1	1	:	¢1	:	:	i
Diarrhosa, &c., (under 2 years)	:	-	-	=	4	P	60	5	c1	-	:	1	22	:	:	
Ulcer of Stomach or Duodenum	:	-	1	4	1	:	4	-	1	:	1	6.1	61	:	1	
Other Respiratory Diseases	:	-	60	63	:	00	50	9	63	:	:	:	4	:	61	
Pneumonia (all forms)	:	9	10	45	10	9	35	33	16	1	12	11	22	1	70	
Bronchitis	61	411	0.1	33	16	18	12	14	17	c1	ŭ	7	11	-	¢.1	
Arterio-Sclerosis	6.1	13	4	1	00	9	29	-	7	9	20	00	00	-	00	
Heart Disease	00	17	13	36	17	81	38	42	25	24	55	15	57	63	9	
Сегерта! Напотграде, се	10	1	9	13	00	16	17	25	12	00	9	00	16	6.1	00	
Diabetes	-	00	:	:	. 6	:	4	00	61	:	4	:	70	:	:	
Rheumatic Fever	4	8	00	00		7 1		1 22			6	. 0	9 1	•		-
Oancer, Malignant Disease		1		2	1 20	3 1	4 39	01	35	1 11	7 39	20	4 29	-	ा	-
Other Tuberculous	:	-1	-	1-	6	6	9	00	-	4	0	:	00	:	00	_
Tuberculosis of Respiratory System				-	-		-	7	1 2		-		6.1	:	300	-
Meningococcal	:	:	_:	:	:	:	:	:	:	:		:		:	:	_
Encephalitis Lethargica	-		6.1		01	10	:	4	:	:	:	:	63	:	:	
Influenza		111		12		1000		22317	61	1	20.50	-		:	-	
Diphtheria	- 00		:	3 1		-		. 5		:	1	:	c1	:	4	
Whooping Cough	-:	- :	:		:	•	:	•		-	-	-	-		-	-
Scarlet Fever		•	0.1	.: 9	01	•	-	:	-:	01	00	•		:		-
Measles	_ :	:				:		:	:			:	:		:	
Smallpox	-:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	
Enteric Fever	- 00	-		+	:	-1	3	:	:		:	:	:	:		
Deaths under 1 year		-	9 16	3 75	3 12	25	1 46	34	32	00	27	9	31	-	12	
Deathsfrom all causes.	52	143	79	353	143	200	337	285	231	86	239	110	275	11	69	
Births	47	247	148	781	278	396	781	517	441	209	328	148	474	13	154	
	:	:	:	:	Brierley Hill.	:	:	:	:	:	:	:	:	T.	unk	
LICI	ote		qc		H	ills	14		on	ve	:	p	tle	Вал	Ba	
DISTRICT.	lec	ey	lul	no	eley	vnh	10C	ley	ast	gro		liel	cas	Y.	TY	
DI	Amblecote	Audley	Biddulph	Bilston	rie	Brownhills	Cannock	Coseley	Darlaston	Kidsgrove	Leek	Lichfield	Newcastle	*Perry Barr	Quarry Bank	
	A	A	B	B	B	B	0	0	D	K	L	I	Z	1*	0	.

* First quarter of year.

URBAN-continued.

1	pur	e Aq	Congenital Debil Malformation Premature Birth	0.46	0.18	89.0	:	0.34	0.85	0.38	0.53	0.81	1.13	0 47	0.33	0.81	09.0	0.65	
		oino	Acute and Chra Mephritis	0.23	0.37	0.00	0.20	0.14	0.17	0.25	0.35	0.16	:	0.18	0.33	0.40	0.26	0.26	
		191	Cirrhosis of Li	0.00	:	:	:	0.07	:	:	0.17	0.05	0.19	0.03	0.11		:	0.04	
		OLA	Other Respirat	0.05	:	0.00	0.20	0.31	0.17	0.12	-	0.11	0.19	90.0	:	0.13	0.10	0.11	:
-	sui.	iol	Pneumonia (all	0.92	0.55	.02	59	0.48	0.34	14	0.70	.03	45	88	0.44	.04	96	98.0	
-			Bronchitis	0.44	0.37	0.68	.59 0.	55	34	1 59.	0.17	0.59	0.19 2	0.65 0.	0	.31	0 88.	56	
-	,	11191	Ognoer, Malign Disease	.04 0	.11	0.73 0	.39 0.	.32 0.	.21 0	.39 0.	0 77.	0.97 0	37	22.	.21	.54 0	03 0	.17 0	:
-			Other Tubercu Diseases	111	181	0.14	20 0.	21	17 2	-	-	16	0	1 90	22 1	0.09	20 1	14 1	
-	-	ete	Tuberculosis o Respiratory Sy	.62 0.	37 0.	0 89	0 66	83 0	36 0	76	:	73 0.	75	47 0	77 0	54 0	73 0	0.64 9.	
-	123	-	Diarrhosa, &c (under 2 years)	8.	0.	2 0	.0	.6		0.	:	.0	.0	.6 0.	0 0.	.1 0.	.5 0.	7.7 0.	9.
	-	- 22	Diphtheria.	0.07	8	9 23	11	17 4	:	61	:	02 7	:	03 12	6	09 14	10 5	07 7	00 00
ulity			Cough	0	0.18	60.0	:	0.0	:	0.1	:	0	:	0.0	:	0.0	0	0	9 9.09
Zymotic mortality	population		Whooping	. 0.02	:	:	-	:	:	:	:	2 0.05	:	:	:	:	3 0.03	1 0.03	60.03
otic r	f pon		Scarlet Fever	1	:	:	:	:	:	0.12	:	0.05	:	:	:	:	90.0	0.0	0.05
Zym	1000 of	-	Measles		0.18	0.39	0.20	:	:	:	:	0.11	0.19	0.12	1	0.18	:	0.07	0.15
	Per 1		Smallpox	1	:	:	:		:	:	:	:	:	:	:	:		0.00	0.00
			Enteric Fever	-	:	:	:	:	:	:	:	80.0	:	0.03	:	:		0.01	0.01
		15 Te	Mortality in chi registered births	44	12	67	3.4	09	54	53	00	89	103	63	42	85	68	65	70
	цз	Dea	Standardized I	9.7	:	10.4	:	10.1	:	:	:	9.01	:	10.1	:	1.0.1	10.7		
16	d A	tion	General Morta	9.4		10.5	70.7	10.2	11.5		11.11	10.7	13.2	10.1	80	10.0	10.6	0.5	9.11
			Birth-rate per of population	18.3	19.9 10.9	18.9	17.2	15.1	18.7	18.9 12.4	13.8.1	22.3	19.9 1	21.1	18.3	19.5	8.0	19.7 10.5	16.9
	0	001	per acre	11.3 1	8.3 1	5.3	4.7	8.3 1	5.5 1	27.7	3.7	7.0 2	5.1 1	14.7 2	3.5 1	7.3	5.5 1	0.1	-
	su	084	Number of pe					-				-		112.5		-		9	•
			Estimat'd to middle of 1928	43,200	5,412	20,540	5,039	28,740	5,878	7,872	5,656	36,950	5,303	33,620	9,054	22,100	30,080	501,540	:
ation	ages		Estin mid 13	4		22		61				3		63		çi	00	50	
Population	t all		1.08	255	10	00	69	35	52	30	88	30	63	06	46	65	32	38	
14	**		Census 1921	40,025	4,607	17,300	4,469	28,635	5,552	8,030	5,488	34,130	5,363	30,390	7,446	19,665	29,232	465,238	
			日夏日	:	:	:	:	:		:	:	:	:	:	:	:	:	:	wns
			MCT	egis	:	:		:	:	:	:	:	-	ry .	Id .	:	. u	bund ss	and.
			DISTRICT	by R	ey .		Hea	rd .	:	rorth	nhall	n .	eter	nespn	esfie	nhall	anto	Totals and Averages	107 large towns in England
				Rowley Regis	Rugeley	Sedgley	Short Heath	Stafford	Stone	Tamworth	Tettenhall	Tipton	Uttoxeter	Wednesbury	Wednesfield	Willenhall	Wolstanton	To	E E

Diseases ill-defined	:	:		:		:	:	:	-		-	:	:		10
Other Defined Diseases	76	14	40	9	5.5	12	21	O ₂	38	C.	7	17	42	45	972
Other Deaths from Violence	6	60	11	:	10	П	0.1	- Tri	82	1	8	10	00	1.8	207
Suicides	9	:	01	-	65	1	-	-	4	:	7	:	00	-	492
Congenital Debility and Mallormation Premature Birth	20	-	14	:	10	ACC.	60	65	30	. 9	91	00	18	18	327
Other Accidents and Diseases of Pregnancy and Parturition	:	:	0.1	-	:	:	:	:	г	-	ç4	1:	G4	6.1	10
Puerperal Sepsis	G1	:	:	:	QVI	:	:	:	:	:	94	-		:	17
Acute and Obronic Nephritis	10	¢1	6.1	1	4	1	6.1	67	9	:	9	60	6	00	135
Cirrhosis of Liver	477	:	:	:	0.1	:	:	П	61	-	-	-	:	:	21
Appendicitis and stilling T	Ali	1	-	:	01	6.3	:	:	61	:	0.3	6.1	03	1	36
Diarrhœa, &c (under 2 years)		1	8	1	0.1	:	:	:	9	:	6	1	9	00	76
Ulcer of Stomach	24	-	:	:	60	:	:	:	10	:	-	:	6.1	10	38
Torms) Other Respiratory Diseases	1	:	61	-	C,	1	1	:	ads.	-	-	:	10	00	57
Ila) ainomnan'i	40	00	21	0.3	14	64	0	707	38	13	29	-Tr	23	29	435
Bronchitis	19	6.1	14	65	16	61	10	1	22	-	22	:	7	25	285
Arterio-Selerosis	23	ণ	7	6/1	-	:	13	ବା	0.1	143	14	40	Ų,	16	230
Heart Disease	64	13	34	9	56	13	10	25	4.4	1.4	47	14	17	51	792
Cerebral Hemorrhage, &c.	28	703	14	6.5	25	00	9	1	27	70	1.00	63	13	25	311
Diabetes	4	:	6.1	:	7		6.3	:	64	-	-	-	-	4	50
Bheumatic Fever	64	:	:	-		:	_	:	00	:	বা	:	:	-	61
Cancer, Malignant Disease	45	9	15	6.1	38	13	7	10	36	6.1	4	11	99	90	587
Other Tuberenlous	NO.	1	60	-	9	1	:	:	9	:	64	C1	0.1	9	70
Tuberculosis of Respiratory System	27	01	12	13	22	00	9	:	27	di	16	f-	12	22	1 63
Meningococcal	:	:	:	:	-	:	:	:	C1	:		:	-		7
Encephalitis Lethargica	1	:		:	1	-	-	:	:	:	-	:	:	6.1	18
Influenza	00	:	0.1	:	या	:	1	Н	[~	:	0	:	#II	. Ita	93
Diphtheria	00	-	6.1	:	C-1	:	-	:	-	:	-	:	0.3	0.0	38
Whooping Cough	1	:		:	:	:	:	:	0.1	:	:	:	:	-	15
Scarlet Fever	:	:	:	:	:	:	-	:	-	:	:	:	:	6.3	9
Measles	-:	_	00	-	:	:	:	:	-	Г	40	:	4	:	339
Smallpox	-:	:	:	:	:	:		-	.:	- :	:	-	-		9
Enteric Fever	35	00	26	00	26		00	00	56 3	11	45 1	-	36	5.2	11-
Causes Deaths under I year	407 8	58	217 2	00	294 2	89	86	63	395 5	70 1	342 4	08	221 8	peed	86 64
Deaths from all														32	35286
Births	793	108	388	87	434	110	149	78	825	106	710	166	424	543	9883
	Rowley Regis	:	:	th.	:	:	:	:	:	:	Wednesbury	ld.	:		
DISTRICT	R			lea		:	rth	all		Ser	pa	fiel	all	nto	30
STR	ley	eley	ley	t H	ord	9	WO	enh	uc	xet	nes	nes	enh	star	Totals
DI	WO	Rugeley	Sedgley	Short Heath	Stafford	Stone	Tamworth	Tettenhall	Tipton	Uttoxeter .	red.	Wednesfield	Willenhall	Wolstanton	T
	R	R	S.	00	30	OD	H	T	T	0	=	=	=	F	1

			Premature Birth		-1	1		00	00	26	G1	16		Ç1		-	0	9	91	00	-	00	
	p	ue.	Congenital Debility		0.51	0.71	:	1.08	0.48	0.2	0.52	0.7	:	0.62	:	0.21	0.39	0.16	0.22	0.38	0.61	0.4	No.
		oii	Acute and Chron Nephritis	0.32	0.09	0.18	:	0.21	0.13	0.20	0.29	:	0.49	0.18		:	0.31	0.31	0.44	:	0.20	0.50	
		a	Cirrhosis of Live	:	:	0.07	:	:	0.13	90.0	90.0	:	0.16	90.0		0.10	80.0	0.16	0.11	:	:	90	
		Á.	Other Respirator	:	100	0.03	:	:	1-		0.03 0	:	:	01	:			0 ::	:	•		0.08 0.06	
			(surrol	-:	1 0.04		:	:	0.1	90.0		:		3 0.1	- :	0.10	0.16		:	:			
			Iln) ainomusaq		0.61	0.48	-	1.08	0.79	0.86	0.72	0.25	0.16	0.43	:	0.64	0.71	0.31	0.4	0.63	0.81	0.62	
			Bronchitis	0.64	0.84	0.33	:	0.64	0.57	0.53	0.59	0.51	0.81	0.48	:	0.21	0,31	0.16	99.0	0.38	0.54	0.52	
		31	Cancer, Malignar Disease	0.64	1.17	1.08	:	2.15	0.79	1.25	1.34	1.53	1.14	1.48	:	1.28	1.74	0.63	2.11	1.39	1.02	1.25	2,170
		sn	Other Tuberculo	0.32	0.14	0.18	:	0.21	0.00	90.0	90.0	0.25	:	:	:	0.10	0.16	0.31		0.12	0.47	0.13	of 32,
		tuə	Tuberculosis of Respiratory Syst	0.97	0.19	0.56	:	21	.67	0.39	0.39	.51	18.	89	45	74	0.47	31	0.55	0.12	0.47	0.48	tion
		Per 1000	Diarrhea, &c H	20.4	2.3	2.2	:	0	8.5 0	3.4	9.6	0	0	1.0 0	-:	0	4.6	8.7 0.	0 0.7	8.0	0	5.4 0	population
1			Diphtheria	61	60	:	:	21	31	90	90	:	÷	06 1	:	42	:	:	:	25	13	10	
	mortality	ion	Cough	-	.0	:	:	0	13 0.3	.0	.0	. 19	.16	.0	:	.0	:	. 91		0	0.1	03 10.	estimated
	mort	population	ZuiqoodW	-:	-:	-:	:	:	.0.1	:	:	0.6	.0.	-:	-:	-	-:	.0	-:	:	:	0 10.0	estin
	otic		Scarlet Fever	-	:	:	:	- :	:	:	:	1	-	:	-	:	:	:	:	:		0.00	an
1	Zymotic	1000 of	Mensles		0.04	0.03	:	:	0.13	:	0.10	:	:	:	:	0.10	:	:	-	:		0.04	0-1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Per 10	Smallpox	:	:	:	:	:	:	:	0.03	:	:	:	:	:	:	:	:	:	:	00.	calculated
0		H	Enteric Fever		-	:	:	:	0.04	-	0.03 0	:	:	:	:	:	:	:	:	:		01 0	alcu
4		T000	registered births	20	. 09	. 89	:	57	53 0.	11	59 0.	94	33	73	:	26	51	. 00	01	35	63	5 10.	is c
	-	nə	Marte Mortality in childr	61	9 1	1 6	:	10	70	0.4	1.0	6 :	:	0.	- :	0 0	10	:		:	7 6	5	K.D.
			Standardized Des	:	6 1	9.	:	:	6	9.	0	:	:	10	:	6	90	:	:	:	7 10.	3	eld
	19	d A	General mortalit	9.0	10.4	9.8	:	13.6	20.7 10.2	19.3 10.3	19.4 10.3	12	11.1	12.0	11.6	7.11 0.71	17.0 10.6	7.6	12.	10.7	10.7	18.2 10.6	ichfi
	J	0 00	Birth-rate per 100	15.8	20.5	17.0	:	18.7	20.7	19.3	19.4	13.5	14.6	16.8	21.7	17.0	17.0	18.2	15.7	15.8	18.2	18.2	or L
	u	osie	Mean area per per in acres	4.4	4.2	2.0	3.0	6.2	0.2	4.5	2.3	6.2	3.1	2.6	7.9	5.8	5.1	3.4	2.9	0.0	8.0	2.9	* The birth-rate for Lichfield
		1	ated e of	3,093	097	980	67	4,638	089	110	130	3,915	6,134	16,160	069	9,368	12,590	6,323	8,984	7,912	14,670	540	oirth
	no	ges	Estimated to middle of 1928	3,	21,260	26,660		4,	22,580	15,110	*30,430	3,6	6,	16,		9,	12,	6,	00	7,	14,	1210,540	l'he
	Population	311.3	田 日																				*
	Pop	315	Census 1921	2,283	21,551	28,454	29	4,634	22,067	16,122	29,448	3,993	6,327	16,816	689	111,029	14,500	5,359	8,908	8,295	13,019	213,523	
			20	6.1	21	821		4	22	16	25	673	9	16		=	1	-	-		15	12	
				:	:	:	:		:	:	:	:	-	:	1	. :		1		:	:	sagi	
			ICT	th.	:	:	:	:	pao	:	:	:		:	:	bor.	:	:	por.	:	:	vera	
			DISTRICT	Jear	я.	. 0			vinf	:	pp	ld .	stle			d .	:	orth		ter		& A	
			DI	Blore Heath	Cannock	Cheadle	Dudley	Gnosall	Kingswinford	14	Lichfield	Mayfield	Newcastle	Seisdon	Shifnal	Stafford	Stone	Tamworth	Tutbury	Uttoxeter	Walsall	Totals & Averages	
1				Blo	Can	Che	Da	Gm	Kin	Leek	Lie	Ma	Ne	Sei	Shi	Sta	Sto	Ta	Ta	Ut	WE	To	

† The mean birth-rate in the rural districts is calculated on an estimated population of 212,280.

Diseases ill-defined or unknown,	:	:	:	:	:	:	:	:	:	-	:	:	:		:	:	:	:	-
Other Defined Diseases.	9	45	51	:	00	37	27	43	15	7	34	1	23	29	11	29	16	33	415
Other deaths from Violence.	-	17	11	:	0.1	1-	70	19	63	41	6	:	9	00	00	1	5	00	601
Suicide,	:	00	6/1	:	:	00	-	Ç1	61	1	00	:	ed.	00	:	:	6.1	60	27
Malformation, Premature Birth	:	11	119	:	0	11	-Tr	16	03	:	10	;	¢.1	5	-	01	00	6	101
Other accidents & Discussion Pregnancy & Parturition Congenital Debility and	:	-	:	:	:	01	:	4	:	-	-	:	:	:	-	:	:	:	10
Puerperal Sepsis.	-:	-	:	:	:	-	:	:	:	:	0.1	:	- :	:	:	:	:	:	4
Acute and Chronic Nephritis,	-	6.1	10	:	1	00	00	6	:	60	00	:	:	4	0.1	4	:	00	43
Cirrhosis of Liver	:	:	0.1		:	00	-	6.1	:	Н	-	:	-	-	-	-	:	:	14
Appendicitis and Typhlitis.	:	:	4	:	1	60	1	0.1	:	1	00	•	:	:	-	1	:	0.1	19
Diarrhœa, etc., (under 2 years).	1	-	_	:	:	4	1	9	:	:	00	:	:	1	-	-	-	:	21
Ulcer of stomach or duodenum.	1	-	1	:	-	:	-	:	:	6.1	0.1	:	4	00	:	00	:	5.1	22
Other Respiratory Diseases.		-	1	:	:	40	-	1	:	:	6.1	:	-	6.1	:	:		:	13
Pneumonia (all forms).	:	13	13	:	10	18	13	22	-	1	7	:	9	6	2.1	T	10	12	131
Bronchitis.	6.1	18	0	:	00	13	00	18	0.1	70	00	:	0.1	v		9	0.3	00	110
Arterio Sclerosis.	-	6	27	:	6.1	00	6	32	00	00	19	:	60	9	c.1	9	9	00	135
Heart Disease.	-00	48	50	:	15	80	44	55	10	15	36	9	22	24	1-	61	23	31	147
Cerebral Hæmorrbage.	-:	Ξ	10	:	10	17	F-	11	23	9	13	:	6	o.	10	ব্য	6.1	00	18
Diabetes.	-	63	-	:	ા	i,C	0.1	00	:	0.3	00	:	4	:	:	-	-	-	291
Rheumatic Fever	1	21	03		:	00	:	:	:	:	:	:	:	:	1	:	:	П	=
Cancer, Malignant Disease.	01	25	29	:	10	18	119	41	9	-	24	:	12	22	4	119	11	15	264
Other Tuberculous Diseases,	1	00	70	:	-	0.1	1	0.1	1	:	:	:	-	01	6.1	:	1	7	29
Tuberculosis of Respiratory system	00	4	15	:	-	13	9	12	61	70	=	_	-	9	6.1	7.0	1	7	101
Meningococcal	:	:	:	:	:	:	:			:	:	:	:	:	:	:	• :	:	-
Encephalitis Lethargica.	. :	:	-		:	:	:	_	:	:	:	:	:	:	:	:	•	-	60
Influenza.	:	:	0.1	:	:	00		9	23	63		:	:	-	:	0.1	60	1	23
Diphtheria.	:	0.1	:	:	-	7	-	61	:	:	-	:	4	:	:	:	63	0.1	22
Whooping Cough	- :	:	:	:	:	00	- :	:	0.1		:	:	:	:	-	:	:	:	7
Scarlet Fever.	- :		:	:	:	:	-	:	:	:	:		:	:		:	:	:	1:
Measles.	:	-	-	:	:	00	:	63	:	:	:	:	-	:	:	:	:	:	6
Smallpox	:	:	:	:	:	:	:	-	:	:	:	:	:	:	:	:	:	:	-
Enteric Fever.	:	:	:	:	:	1	:	-	:	:	:	:	:	:	:	:	:	:	0.1
Deaths under 1 year.	1	26	31	:	5	255	12	37	70	00	20	:	6	Ξ	1	9	4	17	213
Deaths from all	28	222	263	:	63	230	156	313	48	68	195	00	110	134	48	114	85	157	
Birthe	49	430	455	:	87	468	292	626	53	06	272	15	160	214	115	141	125	267	3859 2242
		:	:	:	:	pa	:	:	:		:	: 7	: :	:	::	: :	:	:	
or.	atl	:	:	:	:	oju			:	e	:	:	por.	:	H3	od :	1	:	:
DISTRICE	He	ck	le	A	=	wi		eld	eld	ast	u	73	Z.		Or	ury	ete	=	2 8
Dre	Blore Heath	Cannock	Cheadle	Dudley	Gnosall	Kingswinford	No.	Lichfield	Mayfield	Newcastle	Seisdon	Shifnal	Stafford	Stone	Tamworth	Tutbury	Uttoxeter	Walsall	Totals
	Blo	Can	Ch	Du	Gn	Kii	Leek	Lie	Ma	Ne	Sei	Shi	Sta	Sto	Tai	Ta	Uti	Wa	

RURAL-continues.

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Table showing the number of cases of certain Infectious Diseases notified in each sanitary area during the year 1928, and the Attack-Rates per 1,000 of the population.

URBAN.

Puer-	Cases.	1	10	00	1	1	4	e1	÷	00	4	00	63	63	:	63
Encepha- litis Lethar-	gica. Cases.	1	:	:	1	:	1	:	-	:	:	:	:	1		:
Poho-	Cuses.	:	:	;		:	:		:	:	:	:		•	:	:
Cerebro-	Fever Cases.	:	:	:	:	:	:	:		01	:	1/1	:	:	:	:
Con-	Fever Cases.	:	:	:	:	•	:	:	:	:	:	:	:	:	•	
Erysipelas.	Rate	:	2.04	08.0	0.25	0.29	0.38	0.33	0.20	0.10	0.76	0.44	0.48	0.09	1.02	0.70
Erysi	Cases	:	31	t-	00	4	00	12	10	01	00	00	4	0.1	1	9
peral er.	Rate	:	:	:	0.09	:	0 05	80.0	0.04	:	;	0.11	:	:	:	:
Puerperal Fever.	Cases	:	:	:	00	:	1	00	1	:	:	OI.	:		:	:
eric er.	Rate	0.87	:	:	0.03	:	0.05	:	80.0	:	;	:	0.12	0.04	::	0.11
Enteric Fever.	Cases	00			1	:	-	:	63	:	:	:	1	1	:	1
heria.	Rate	7.59	66.0	14.01	0.48	2.66	0.77	0.78	1.07	0.87	3.80	0.72	0.84	0.71		2.34
Diphtheria.	Cases	26	15	122	15	36	16	28	27	17	40	0.13	1	16		20
er.	Rate	1.16	2.51	1.61	1.18	1.03	1.78	1.53	0.55	0.97	3.62	8.45	2.52	1.87	:	0.82
Scarlet Fever.	Cases	4	38	14	37	14	37	55	14	19	38	151	21	31	:	1
-pox.	Rate	1:	0.53	:	:	:	0.19	:	:	:	0.09	0.67	1.32	1.11	:	
Small-pox.	Cases	:	00	:	:	:	4	:	:	:	1	12	111	25	:	:
Estimated Population	middle of 1928.	3,426	15,140	8,706	31,210	13,510	20,770	35,830	25,220	19,520	10,520	17,860	8,316	22,560	086	8,528
	DISTRICT.	Amblecote	Audley	Biddulph	Bilston	Brierley Hill.	Brownhills	Cannock	Coseley	Darlaston	Kidsgrove	Leek	Lichfield	Newcastle	*Perry Barr	Quarry Bank

* First quarter of year.

URBAN-continued.

Puer- peral	Cases.	7	:	1	:	. 9	:	:	:	01	:	0.1	1	01	1
Encepha- I		1	1	:	:	-	1	1	1	:	;	-	:	:	01
Polio-		1	:	:	:	:	:	:	:	:	:	;	:	:	1
1	Fever Cases.	:	:	:	:	:	:	:	:	:	:	:	:	1.	
Con-		:	:	:	:	:	:	:	:	:	:	:	:	-:	:
	Rate (0.18	0.55	0.73	62.0	0.34	0.51	0.12	0.17	0.81	0.19	98.0	0.11	0.45	0.36
Erysipelas	Cases	80	00	15	00	10	00	1	1	30	1	59	1	10	11
eral er.	Rate	0.05	81.0	60.0		:	:	:	:	:	:	0.12	0.11	0.04	0.03
Puerperal Fever.	Cases	1	-	01	:	:	:	:	:	:	:	4	1	1	1
rric er.	Rate	:	:	:		0.03	0.17	:	:	0.16	:	0.03	:	9.04	:
Enteric Fever.	Cases	:	:	:	:	1	1	:	:	9	:	1	:	1	:
ieria.	Rate	0.71	1.11	1.46	0.39	2.85	0.51	2.16	0.17	1.00	:	99.0	0.33	89.0	0.99
Diphtheria.	Cases	31	9	30	01	85	00	17	-	37	:	19	63	15	30
let er.	Rate	0.81	0.18	0.44	0.79	1.21	0.85	0.89	1.77	0.73	0.19	1.39	1.10	66.0	3.12
Scarlet Fever.	Cases	35	-	6	4	35	5	[-	10	27	П	47	10	22.2	94
-pox.	Rate	:	:	:	2.78	0.24	0.17	:	:	:	:	0.03	:	:	1.86
Small-pox.	Cases	:	:	:	14	7	1	:	:		:	1	:	:	56
Estimated Population	middle of 1928	43,200	5,412	20,540	5,039	28,740	5,878	7,872	5,656	36,950	5,303	33,620	9,054	22,100	30,080
Distrator		Rowley Regis	Rugeley	Sedgley	Short Heath .	Stafford	Stone	Tamworth	Tettenhall	Tipton	Uttoxeter	Wednesbury	Wednesfield	Willenhall	Wolstanton

RURAL.

1	Puer peral Purexia	Cases.	1:	c1	4	:	:	1	c1	11	:	:	10	:	4	:	:	¢1	:	1
131	Encepna- litis Lethar-	gaca. Cases.	:	:	1	:	:	:	:	:	:	:	:	:	:	::	:		:	1
	Polio- myelitis	Cases.	:	:	:	:	:	:	:	:	1	:	.:	:	:		:	:	:	
-	Cerebro- spinal	Cases.	:	:	:	:	:	:	:	:	:	:	:	:	:	1.	:	:	:	:
	Con- tinued	Cases	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	Erysipelas.	Rate	:	0.37	09.0	:	0.21	99.0	0.13	0.52	:	0.49	0.55	:	0.10	0.16	0.31	:	0.12	0.34
	Erysi	Cases	:	00	16	:	1	15	c1	16	:	00	6	:	1	61	61	:	1	70
	peral er.	Rate	:	;	0.15	:	:		90.0	0.03	:	:	:	:	0.10		:	:	:	0.20
	Puerperal Fever.	Cases	:	:	Ŧ	:	:	:	1	1	:	:	:	:	1	:		:	:	00
	eric er.	Rate	:	0.00	0.03	:	:	0.22	:	0.62	:	:	90.0	:	:	80.0	:	:	0.12	0.13
	Enteric Fever.	Cases	:	6.1	1	:	:	20	:	19	:	:	1	:	:	1	:	:	1	03
-	heria.	Rate	1.61	0.78	0.56	:	7.97	2.65	0.53	1.18	:	0.16	1.23	:	2.24	0.71	2.21	0.55	0.76	1.63
	Diphtheria.	Cases	10	38	15	:	37	09	00	36	:	1	50	:	21	6.	14	10	9	24
-	rlet er.	Rate	0.64	2.49	1.42	:	3.45	2.52	1.39	3.35	0.25	2.12	0.99	1.45	2.88	1.98	2.21	2.56	1.01	1.84
-	Scarlet Fever.	Cases	C1	55	288	:	16	57	21	102	П	13	16	1	F22	25	14	153	00	2.2
-	-pox.	Rate	:	:	0.26	:	:	:	:	:	:	:	:	:	:	:	0.16	:	:	0.13
-	Small-pox.	Cases	:	:	7	:	:	:	:	:	:	:	:	:	:	:	1	:	:	61
Loberton	Population in the	1928.	3,093	21,260	26,660	23	4,638	22,580	15,110	30,430	3,915	6,134	16,160	069	898'6	12,590	6,323	8,984	7,912	14,670
-	Dremprem	DISTRICT.	Blore Heath .	Cannock	Cheadle	Dudley	Gnosall	Kingswinford	Leek	Lichfield	Mayfield	Newcastle	Seisdon	Shifnal	Stafford	Stone	Tamworth	Tutbury	Uttoxeter	Walsall

																	Po	artic	ula					-		2000	900	In g th	01100	900	20					ber,	19	28.											Alterbei		ori Opal	S.V. elen s serves part glass and	of Wile Ounty S	r pains of Section worked by a of Lees 20.50 solution U.S. Bernegis of Wast Streetwin, 1998.		
		.8								Bitta			-	-	-	To lake			160				Brent		118	Total V	in the	Oak	ora en V	anna I	П	Des	OA, Bree	prophr a		boy of 10 g 100k	lations o		12	Supplied to	miles &	1 10	86.0	Wetter	or State							35				
					Mes 8			No.			Total																		1904											being a	Child	25		Free Free	Mone	- 1								Breakle		Barrel
										W.Fr.		ned .							Sant.		Driver.	Espe		Delta o	Sup-		Between		G 00	Total -	Street of							- Tree	A 25	SPICE STREET			Esperies			Reports			in House				200			
	116	200																			TAR.			2 A S			program	S Our S	mar brook				LL						100	Section.	tin Jan	posts.	Mollow	Caller Jens	PRES.	-	1									
Arrest			288									0 1																											1		40	10	10	25	18.		2		21/15	1 28	16	1		Andrew Course Valles Course	Attes	CREAR.
Superior			140									4 -					100			357				120		10 110	410			100						9		- 212			10	-	-	74	25	24				10	4	310			Beens	LEW
PROPERTY.			100							-							14						5 1211			17 200				1718								_ 216	.5	2	68	40	12	10	80	12	1	10 14 10 44	3 5	#3	44			State Onto Section States States States Section Sectio	Birth	-
																	1				-	1	1794	1		1	-			-			1				10		4		00	250.	-	64	20	-	1 3	G 10		10 1						
Entered		11021	705				- 1			194	2				- 184		-		42	201	34		H 1774	310	1 2	21. 190	4 200	g .	177	00E	1 -		- 3			10 -	- 50	- 340	13	12	A1	22	20	15	1 20	10	1 2	1 1		= 1	21			Bertinskest Centre Edingram Centre	Links	
Lawrence		550	128	10 18	20						20	79				1 -	10		AS.	104	- 2		1 1814	100	9000	65 506	9 100	4	100	2014			- 3		9 (3 1	26	- 345			20	28	24	- 14	36	35		5 5				100			Peser	
STANK BAR		700	100							335							2		35		3		2 04			16 4							- 2							13	15	**	-	2					3110		7					
Street Street			-			100						9 -					14			145	24		911			3 10			111	nos nos							10	1 199			- 11	74	-	61	74	-	17								Branc	10
			242																		-8		100						70	-											100	45		12	-	86		1				100		Street Street Contra Lawren Street Contra	Personal	
Special Contract		170	2			-1				313		20 1			103	100			119	216	- 11		2145	240		19 334			116	1411	810		- 18		3101	38 -	151	- 111	200		- 21	27	-	100	- 2	7					-	100		Designation of the last		
Taxanian		29/22	646		1 2					144	4	91							12	141			1 3400	410		100	1 10		100	645							1			1/4	-	42	10	100	24	66					100				Tannu	
Creates		1900	100							- 10		40	2 3			1 2	1			250	1		100	179		100	4 12	14	44	410			- 4	-		3 1	26	1 11		30	20	20	-	100	100	41		110		11			2		Cross	1100
Tenners		Wild.	100	2 10		-				121	4	83 -			1		1		ist	110	21		8 1200			10 100			166	400	2 1		- 1			2	- 11	£ .00			100	41	.9.	- 41	26	10	36		4 6	44					William	
WHATELLY		1000	412	29 10	1 (4)		- 1		9 -	310		101 3	2 -		- 40		116		112	400	62	1	a Ass	843	3	00 BIS			ANE.	inis	12 -	1 -	- 10		1 -		141	- 100	12	11	168		80	107	10	294	234			2 1	100			Williamid Guine Petrologia Contra	WHILE	
BURLE.		200	-		18		- 2			- 30										40						11 70	1 0		44	200							100	- 6	100		100													(Contrapad S) 1 in	Photo:	BESTS.
County		20000	410	16 91			- 8	10	2 -	985	35	42 3	2 -		- 12	1 1	10			200			N 1516			10 300			-	1400	1 -		- 22		100	1 -	100	- 331		36	82	146		16	21.		- 11	1 10	4 4	94			2		CHARLE	LK.
transact.		9438	40	2 4			- 3		4 -	20		15 -			1 19					-				145		97 AN	1 100	4	21	204			- 1				10	1 24															2.4			
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Lave		ALC: N	330	SA 10		8	- 3			399	12	205 2	5 -		31	1 1	- 41		110	811		11	2017	200	1 5	22 410	3 300	100	104	999	4 2		- 0		1 2	1 -	100	- 104													10.				Loss	
Matrice		MALE.	- 04	3 3		2	77 3			89		10 -			1	1 =			26	40	-		2 511			10 60			P5.	120	- 1		- 4				1 4	7 20													3				MARTIN	
Name and Address of		2154	**			1	-			45		20 -			1	1 -	- 11		**	94	22		4 374	190	1 3	16 10	140	100	74	200 ·			2			3 -	10	-				Field									*				Named	rene .
Barriera .		-	-			-				178										-	-			1 600	1 6	4 00	2 240		-		4 6		1 2			1	100	- 60	8		12	40		12	17	7				2 15	44			Codesi Contro Eligano Contro Cippo Pinto Cantro Wandanasa Cantro		
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Street		1000	100	4 10		3			1	100	7	6 .					17	12	139	100	- 15	44	1000	877	1 0	1 100	500		145	100					161	1	10	1 2																	Winds.	
Tanners		4100	100	1 10							-						100		52	100	30	24	200	193		100	100			640						1	100	- 4																		
		90%	224	16 12	1 2		- 8			200	2				- 11		10		15	200	- 04	34		813	1 2	25 380	2 . 314	4 1	100	200	2 1	3 -	- 8			2 -	20	- 110																		
Concuston		Des	185	20 10		. 9				- 40	. 6	21 3			- 61		211		370	110	240	31	1 80	160	1 2	4 .00	900	19 .	118	400	1 -						24	- 19													4		5.7			114
Wasses		10000	220		1 0		- 34			200	2	20 1	1		113		29		- 41	842	20	- 1	1000	DES		14 145	200	7 1	120	411						10 -	10	- 110	1		21	100	1	11	11	12			1 1	1 1	10.			Attitude Course	Water	
PARISHED.		-	16				- 3			- 18							-		31.	- 22	10		. 114			14 10	- 11	2	16	-							2.	- 16												18	120			Marie Control of the	Sec. 2	
Denter Carne Bank		23																																																						
		-	Allen I	-		-	4 (1)	100	# -	1110	100	194 31			841	1 64		-	1004	3180	958	341	H (1925)	800	1 50	14 (454)	4215	4	P44 1	1662	4 5		2 160	2 4	22	16 3	1000	2 2148		44 1	2218	HILE	248	1000	945	460	900	2116			410	200	80			
				100	100	-		1							4.0	200	-25			Total .	-715	-	1000	1000	8 70	100	and the last		and the last		the latest				200	100	100	1000				-	100					Access to	1000			130				

