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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 1936.

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STAFFORDSHIRE COUNTY COUNCIL.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH.

PRELIMINARY NOTE.

The Annual Report for 1936 has been prepared, as in former years, in compliance with Circular 1561 from the Ministry of Health. Whilst it deals generally with the sanitary circumstances of the Administrative County, and in detail with the services for which the County Council are directly responsible, the Annual Report of each Sanitary District must be consulted for information on housing conditions, environmental conditions generally, and infectious diseases.

The year 1936 has, from the public health point of view, been a satisfactory one. The vital statistics show that, as in former years, the birth rate is higher and the death rate lower than those of England and Wales as a whole. There has been no serious outbreak of infectious disease, and the deaths from tuberculosis continue to decline, having never been less than this year. The percentage of deaths in persons of both sexes before the age of 45 has steadily fallen since 1920. Consequently there has been a coincident increase in diseases that are usually prominent in the later years of life, such as cancer and heart disease.

During the year further development of the Maternity and Child Welfare Scheme took place, particularly in ante-natal work, and the dental scheme for expectant mothers was also extended. In the Report a full account will be found of the various ways in which mothers can be assisted during pregnancy and childbirth, and I am glad to note that more advantage is being taken of these facilities each year.

The work of the County Bacteriological Laboratory continues to expand and has proved its value to Medical Officers of Health when dealing with infectious disease and outbreaks of food poisoning; to local authorities in all water supply questions; to medical practitioners who, in their work, have daily to deal with matters of public health concern; and in the all-important duty of controlling the milk supply. Much work is undertaken for the

venereal diseases schemes of this County, and for those of two neighbouring County Boroughs, and the medico-legal work which began a few years ago continues to expand. Full details of these various activities will be found in the Report.

There has also been an increase in the work of the Chemical Laboratory, both in the number of tests made under the Food and Drugs Acts, and in the examination of samples of water and of sewage effluents. This Laboratory also conducts chemical examinations in medico-legal cases, and this work, as in the case of the Bacteriological Laboratory, has also increased.

In the Report will be found an interesting account of the work of the Veterinary Department. It shows the active steps which are being taken to safeguard the milk supply and will prove of great interest to those directly concerned.

I should like to draw attention again this year to the activities of the District Councils in the development of the water supplies of their areas and the means that are being taken to prevent the pollution of the streams, and it will be noted what valuable work is being done in both directions.

PUBLIC HEALTH OFFICERS.

(a) *Medical.*

County Medical Officer of Health	1
Deputy County Medical Officer of Health	1
School, Maternity and Child Welfare and Ante-natal Work :	
Senior Assistant Medical Officer (Whole-time)	1
†Assistant Medical Officers (Whole-time)	18
Assistant Medical Officers (Part-time)	2
County Ophthalmic Surgeon (Whole-time)	1
County Dental Officer (Whole-time)	1
Assistant Dental Surgeons (Whole-time)	*15
General Practitioners (Maternity and Child Welfare only)	5
Consultants under Puerperal Fever and Puerperal Pyrexia Regulations and Consulting Obstetricians	8
Venereal Disease Medical Officer (North Staffs.).....	1
District Medical Officers under Poor Law Acts	81
Public Vaccinators	77
County Bacteriological and Pathological Laboratory :	
Medical Staff	2
Assistants and Staff	15
Standon Hall Orthopædic Hospital :	
Medical Staff (House Surgeon)	1
Medical Staff (Visiting Surgeons)	2
Nursing Staff	41
Teaching Staff	4

(b) *Others.*

County Chemical Laboratory :

Analyst	1
Deputy Analyst	1
Assistants and Staff	8

†Veterinary Staff :

Chief Veterinary Officer	.....	.....	.....	.....	1
Assistant Veterinary Officers	.....	.....	.....	.....	8
Sanitary Inspector and Assistant	.....	.....	.....	.....	2
Food and Drugs Inspectors	.....	.....	.....	.....	7
Vaccination Officers	.....	.....	.....	.....	31

School, Maternity and Child Welfare and Ante-natal
Work and Tuberculosis Health Visiting :

Inspectors of Health Visitors (also act as Inspectors of Midwives)	.....	.....	.....	.....	3
Health Visitor Lecturers on Mothercraft	.....	.....	.....	.....	2
Health Visitors (Whole-time)	.....	.....	.....	.....	54
Health Visitors (Part-time)	.....	.....	.....	.....	40
School Nurses (Whole-time)	.....	.....	.....	.....	2
Dental Nurses	.....	.....	.....	.....	*16

† Ten Whole-time Assistant Medical Officers hold appointments as District Medical Officers of Health.

‡ As from 1st October, 1936, the veterinary work in the County Borough of Walsall was undertaken by the County Staff.

* Includes one for Maternity and Child Welfare, and two supplied to Part III. Local Authorities. The dental treatment for the Public Assistance Committee, and the Staffordshire, Wolverhampton and Dudley Joint Committee for Tuberculosis, is also performed by the County Dental Staff.

CHANGES DURING 1936.

Assistant Medical Officers : —

J. A. Guy, M.B., Ch.B., D.P.H.—Additional Appointment (14.2.36).

A. Thomson, M.B., Ch.B., D.P.H. *vice* W. S. Slater (30.3.36).

W. Stewart, M.B., Ch.B., D.P.H. *vice* H. B. Binks (8.6.36).

Dr. Binks was appointed Medical Officer of Health of Stafford M.B., from 1.5.36, but continued as a Part-time Assistant Medical Officer of the County Council from that date.

Assistant Medical Officer for Maternity and Child Welfare :—

Janet M. Jamieson, M.B., Ch.B., D.P.H. *vice* J. O. F. Davies
(4.2.37).

Public Vaccinators :—

Districts No. 41a and 41b : R. H. Carter, M.R.C.S., L.R.C.P.,
vice J. R. Eden (1.1.37).

District No. 71 : A. W. Tibbetts, M.R.C.S., L.R.C.P., *vice*
T. M. Tibbetts (13.3.36).

The above-mentioned Public Vaccinators also took over the duties
of District Medical Officer.

Assistant Veterinary Officers :—

J. M. McLinden, M.R.C.V.S., N.D.A.—Additional Appoint-
ment (1.4.36).

J. L. Buckingham, M.R.C.V.S. *vice* F. A. Gordon (1.9.36).

Health Visitors :—

Miss E. Brown (1, 2, 3) *vice* Miss M. Lloyd (18.5.36).

Miss C. M. Ellis (1, 2, 3) *vice* Miss A. G. Fry (15.6.36).

Miss D. M. Lavender (3, 4, 5) *vice* Miss M. R. Killen (1.1.37).

1. Health Visitor's Certificate (approved by Ministry of
Health, 1926) R.S.I.
2. Trained Nurse.
3. Certificate of Central Midwives Board.
4. Health Visitor's Certificate, Battersea Polytechnic.
5. Inspector of Nuisances Cert. R.S.I.

SUMMARY OF STATISTICS.

1.—GENERAL STATISTICS.

Area of Administrative County	.....	(acres)	685,503
Population of Area (estimated mid. 1936)	.....		731,700
Rateable Value at 1st April, 1936	.....		£2,888,537
Estimated net product of a penny rate 1936-37	.....		£11,052

2.—EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

	Total	M.	F.		
Live (Legitimate)	12,137	6,368	5,769		
Births (Illegitimate)	304	142	162	Birth-rate	17.0
Stillbirths	554	310	244	Rate per 1,000 total births	42.6
Deaths	8,225	4,203	4,022	Death-rate	11.2

Deaths from Puerperal Causes : —

	Deaths.	Rate per 1,000 total births.
Puerperal sepsis	14	1.1
Other puerperal causes	33	2.5
Total	47	3.6

Death Rate of Infants under one year of age : —

All infants per 1,000 live births	67
Legitimate infants per 1,000 legitimate live births	66
Illegitimate infants per 1,000 illegitimate live births	102
Deaths from Cancer (all ages)	968
Deaths from Measles (all ages)	31
Deaths from Whooping Cough (all ages)	30
Deaths from Diarrhoea (under two years of age)	72

AREA AND POPULATION.

This year, as in 1935, there has been no alteration in the area of the Administrative County.

The population figures of the various districts used in calculating the birth and death rates have again been supplied by the Registrar-General.

As all deaths of persons serving with H.M. Forces are now allocated to their area of residence in the same manner as civilian deaths, the estimates of resident population as supplied by the Registrar-General have been used for the calculation of birth and death rates.

In 1934 the Registrar-General supplied Comparability Factors for adjusting local death rates, based on the average mortality rates experienced in England and Wales during the 3 years 1930-2, divided into 11 sex-age groups, which have been applied to the corresponding sex-age groups in the 1931 census population of every Borough, Urban District, and Rural District in the Country.

The rate obtained when the crude death rate is multiplied by this factor is then comparable, from a mortality point of view, with the crude death rate of the Country as a whole or with the mortality of any other local area, the crude death rate of which has been similarly modified with its own factor for the purpose.

Strictly speaking, the adjusting factor applied only to death rates experienced in the year 1931, but population constitutions change relatively slowly, and, save in exceptional circumstances, the factor may be used for practical purposes until fresh population constitutions are available from the next census.

The rate for each district, adjusted by applying the Comparability Factor, is shown in the table at the end of the Report.

In the following table the census population of the Administrative County for 1931, and the estimated population to the middle of 1936, are set forth :—

	Census, 1931.	Estimated Population as at middle of 1936.
Urban	490,632	*554,500
Rural	212,622	*177,200
Totals	†703,254	731,700

*The increase in the population of the Urban Districts, and the decrease in that of the Rural Districts, is due to the changes in Sanitary Districts and boundaries which took place on the 1st April, 1934, under the Staffordshire Review Order, 1934.

†The census population of the Administrative County as constituted at the 31st December, 1936, is less than this figure by 2,902. The estimated population in the portion of the County area transferred to the County Borough of Wolverhampton on the 1st April, 1933, was 5,419, but this decrease was partly neutralized by the fact that on the 1st April, 1932, a portion of the County of Warwick, with an estimated population of 2,517, was added to the Administrative County.

Births.

The live births registered in the Administrative County numbered 12,441, compared with 12,174 the previous year, the number in the Urban Districts being 9,697 and in the Rural Districts 2,744.

Stillbirths. There were 554 stillbirths registered during the year, of which 405 were in Urban and 149 in Rural Districts. The stillbirth rate per thousand of the population for the combined Urban and Rural Districts is 0.76. During the same period the rate for England and Wales was 0.61, and for the large towns in England 0.67.

The mean birth-rates in the whole Administrative County and in the Urban and Rural Districts, respectively, for nine quinquennial periods and for the past three years are shown in the following table, in which corresponding rates for England and Wales are included.

		LIVE BIRTH-RATE PER 1,000 OF POPULATION											
DISTRICTS		5 yrs 1889- 1893	5 yrs 1894- 1898	5 yrs 1899- 1903	5 yrs 1904- 1908	5 yrs 1909- 1913	5 yrs 1914- 1918	5 yrs 1919- 1923	5 yrs 1924- 1928	5 yrs 1929- 1933	1934	1935	1936
Staffordshire	Combined Urban & Rural	33.6	33.2	32.5	30.3	27.8	24.0	24.1	20.2	17.6	16.6	16.8	16.6
	Urban	35.5	34.7	33.6	31.5	29.2	25.0	25.0	20.7	18.1	16.9	17.3	17.1
	Rural	30.2	30.5	30.2	27.0	24.4	21.6	22.0	19.0	16.6	15.8	15.1	14.9
England and Wales		30.8	29.7	28.7	26.9	24.5	20.4	21.3	17.8	15.6	14.8	14.7	14.6
Large Towns in England		31.5	30.7	29.7	27.8	25.2	*20.9	22.0	18.2	15.8	14.7	14.8	14.7

* 4 years.

Deaths.

The number of deaths in the Administrative County amounted to 8,225, the number in the Urban Districts being 6,215 and in the Rural Districts 2,010.

In the following table comparative rates for nine quinquennial periods and for the past three years are given, together with corres-

Causes of Death.	Age at Death											Total
	Under 1	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 35	35 and under 45	45 and under 55	55 and under 65	65 and under 75	75 and over	
1. Typhoid and Paratyphoid Fevers	7	6	10	2	—	—	1	1	—	—	4	
2. Measles	—	—	4	8	—	—	—	—	—	—	31	
3. Scarlet Fever	18	10	1	5	1	—	1	—	—	—	30	
4. Whooping Cough	4	2	11	22	2	2	1	—	—	1	45	
5. Diphtheria	8	4	3	1	4	5	6	16	28	24	121	
6. Influenza	—	—	—	—	—	—	—	—	—	—	—	
7. Encephalitis	—	—	—	1	2	3	2	2	—	1	11	
8. Cerebro-spinal Fever	9	—	5	3	1	1	—	—	—	—	19	
9. Tuberculosis of Respiratory System	2	3	2	4	80	89	59	72	32	11	4	
10. Other Tuberculous Diseases	8	5	8	18	9	8	8	1	4	4	74	
11. Syphilis	2	—	—	—	—	—	3	4	5	3	17	
12. General Paralysis of the Insane, Tabes Dorsalis	—	—	—	—	1	—	7	2	6	1	18	
13. Cancer, Malignant Diseases	—	—	1	1	8	18	45	124	290	297	968	
14. Diabetes	—	—	—	—	2	3	7	3	29	47	20	
15. Cerebral Haemorrhage, etc.	—	—	—	—	1	3	8	36	100	180	477	
16. Heart Disease	—	—	1	17	31	31	61	145	349	590	1846	
17. Aneurysm	—	—	—	—	1	2	3	3	9	1	19	
18. Other Circulatory Diseases	—	—	—	—	—	—	—	14	53	125	362	
19. Bronchitis	31	5	2	2	4	6	7	18	44	92	366	
20. Pneumonia (all forms)	121	42	22	19	24	25	39	63	81	64	540	
21. Other Respiratory Diseases	5	2	2	5	3	1	9	12	17	10	83	
22. Peptic Ulcer	—	—	—	—	1	4	13	20	22	10	8	
23. Diarrhoea, etc.	66	6	2	2	1	5	3	2	4	3	97	
24. Appendicitis	—	3	2	5	6	7	5	6	8	11	3	
25. Cirrhosis of Liver	—	—	—	—	2	—	—	1	10	6	3	
26. Other Diseases of Liver, etc.	—	—	—	1	—	—	5	6	7	10	8	
27. Other Digestive Diseases	11	1	7	12	8	1	9	14	21	26	20	
28. Acute and Chronic Nephritis	2	1	1	6	12	11	15	30	51	50	45	
29. Puerperal Sepsis	—	—	—	—	4	8	2	—	—	—	14	
30. Other Puerperal Causes	—	—	—	—	5	15	12	1	—	—	33	
31. Congenital Debility, Premature Birth, Malformations, etc.	465	1	2	—	2	1	1	—	—	—	472	
32. Senility	—	—	—	—	—	—	—	—	3	62	425	
33. Suicide	—	—	—	—	2	7	17	24	25	14	1	
34. Other Violence	20	5	11	33	53	41	34	29	41	40	45	
35. Other Defined Diseases	58	11	8	45	41	52	60	81	105	127	89	
36. Causes ill-defined or unknown	—	—	—	—	1	—	—	—	1	1	5	
Totals	837	107	105	212	312	349	444	730	1345	1811	8225	
Polio-myelitis	1	—	—	—	—	—	No. 35 above.	—	—	—	—	

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ponding figures for the Country as a whole, and for large and small towns throughout England.

DISTRICTS		DEATH-RATE PER 1,000 OF POPULATION.											
		5 yrs 1889- 1893	5 yrs 1894- 1898	5 yrs 1899- 1903	5 yrs 1904- 1908	5 yrs 1909- 1913	5 yrs 1914- 1918	5 yrs 1919- 1923	5 yrs 1924- 1928	5 yrs 1929- 1933	1934	1935	1936
Staffordshire	Combined Urban & Rural	18.1	16.9	16.1	14.6	14.1	15.0	12.3	11.4	11.6	10.8	11.1	11.2
	Urban	18.9	17.5	16.6	15.1	14.7	15.5	12.6	11.5	11.8	10.7	11.2	11.2
	Rural	16.8	15.7	15.1	13.4	12.7	13.8	11.6	11.2	11.2	10.9	10.8	11.3
England and Wales		19.1	17.4	16.9	15.3	13.9	15.2	12.5	12.0	12.3	11.8	11.7	12.1
Large Towns		21.0	19.0	18.2	15.8	14.3	15.5	12.6	12.0	12.3	11.8	11.8	12.3
Smaller Towns		17.6	15.9	15.7	14.9	13.6	14.1	11.5	11.0	11.2	11.3	11.2	11.5

In the following table I have shown the chief causes of death for the last ten years, the numbers given for 1936 being 66.1 per cent. of the total deaths :—

TABLE SHOWING CHIEF CAUSES OF DEATH.

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
*Zymotic Diseases	386	242	376	301	281	311	231	223	303	217
Influenza	532	116	570	131	311	221	424	139	170	121
Tuberculosis of Respiratory System	465	423	492	476	497	412	469	438	434	358
Tuberculosis, other forms	156	99	100	104	112	113	87	93	86	74
Cancer, Malignant Disease	803	851	899	912	897	915	896	963	981	968
Cerebral Hæmorrhage	465	430	462	431	477	510	460	443	457	477
Heart Disease	1047	1239	1448	1366	1500	1561	1579	1556	1618	1846
Bronchitis	650	395	622	352	485	369	409	311	377	366
Pneumonia	865	563	933	588	630	570	607	570	562	540
Congenital Debility, etc.	453	428	420	409	459	443	413	412	415	472

*Typhoid and Paratyphoid Fevers, Measles, Small-pox, Scarlet Fever, Whooping Cough, Diphtheria and Diarrhœa.

On examination of this table it will be noted that heart disease easily heads the list, no fewer than 1,846 deaths being attributed to this cause. This number is double that next on the list, viz., cancer, with 968 deaths. Although there has been almost a continuous increase in the number of deaths from heart disease recorded during the last ten years, they have occurred in the degenerative period of life, and as people live longer than a generation ago we must expect an increase in deaths from this cause.

The number of deaths from cancer is slightly less than that for last year, though there has been a considerable increase over the figures of ten years ago. As the liability to cancer increases as age advances, the increased incidence can be explained in a similar manner to that given for the increase of deaths from heart disease.

Deaths from zymotic disease, which include infectious fevers, have decreased considerably this year. This is to be expected as epidemic disease usually occurs in periodic cycles. It is gratifying to note that deaths from tuberculosis of the respiratory system are less by 76 compared with last year.

The following table shows the number of deaths in different age groups, from various causes, during 1936. It is interesting to compare this with the previous table showing the principal causes of death. Pneumonia again took heavy toll of child life, no fewer than 185 deaths in children under five years of age being due to this cause, and of the 837 total deaths occurring in children under one year of age 121 were due to pneumonia. Deaths from infantile diarrhoea were decreased compared with the previous year, there being 72 deaths in children under two years of age compared with 98 in 1935. Deaths from bronchitis show little change, but the number of deaths in children due to this cause was decreased, whilst the deaths in old people over 65 were increased.

The figures for influenza were considerably less than in the previous year. In tuberculosis of the respiratory system the majority of deaths took place between the ages of 15 and 45, as is usually the case, but such reduction as has already been noted in the total number of deaths from this cause was brought about by a lessened mortality in these age groups. The death rate from tuberculosis is given under the appropriate heading at the end of this Report. It will be noted that deaths in infants under one year, due to congenital debility, premature births, malformations, etc., amount to 465, an increase of 62 over the previous year. I refer to this matter in the appropriate section later in this Report. (Page 51).

The following table has been prepared covering the last 17 years in which the percentage of deaths under 45 years of age is worked out in relation to the total deaths at all ages, and in the table the sexes are divided.

Speaking generally, 30 per cent. of all deaths occur now under the age of 45, so that 70 per cent. occur afterwards. From a public health point of view, this is a matter for congratulation, for it shows how effective the preventive measures have been during youth and in the productive period of life. On reference to the previous table, giving the chief causes of death, it will be noted that there has been a gradual increase in the number of deaths from diseases usually associated with the later periods of life, such as cancer and heart disease, since a larger number of people over 45 survive than they did in years just following the war. Continuous medical research on the causes of these diseases is taking place, and although more light has been thrown on their origins, we cannot expect, as yet, to be able to formulate measures of prevention as successful as are now available for diseases of infective origin.

DEATHS UNDER 45 YEARS OF AGE—MALE AND FEMALE—
SHEWING PERCENTAGE OF TOTAL DEATHS (ALL AGES).

YEAR	MALE			FEMALE		
	Deaths all ages	Deaths under 45	Per cent. of Total	Deaths all ages	Deaths under 45	Per cent. of Total.
1920	4626	2295	49.61	4084	1935	47.38
1921	4545	2120	46.64	3985	1759	44.14
1922	4534	1943	42.85	4191	1793	42.78
1923	4197	1816	43.27	3788	1556	41.08
1924	4332	1795	41.43	3906	1520	38.91
1925	4556	1919	42.12	4161	1724	41.43
1926	4148	1658	39.97	3808	1441	37.84
1927	4458	1766	39.61	4082	1564	38.31
1928	3965	1449	36.54	3563	1180	33.12
1929	4813	1827	37.96	4293	1453	33.84
1930	4100	1473	35.92	3672	1211	32.98
1931	4376	1472	33.64	3933	1272	32.34
1932	4190	1425	34.01	3824	1174	30.70
1933	4213	1415	33.59	3900	1207	30.95
1934	4105	1261	30.72	3655	1054	28.84
1935	4284	1354	31.61	3802	1159	30.48
1936	4203	1266	30.12	4022	1100	27.35

GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

Local Government Act, 1929.

The scheme for the establishment of a new Hospital at Newcastle has been approved by the Ministry of Health and it is hoped to start demolishing the old Institution at an early date, as soon as arrangements can be made for the housing of the inmates at other Institutions.

Plans are in course of preparation for the conversion of Wordsley into a Hospital of 437 beds, and it is hoped to continue the use of the present Institution whilst the new Ward Blocks, Nurses' Home, Treatment Block, etc., are being built.

Poor Law Medical Out-Relief.

Since the transfer of this service, under the Local Government Act, 1929, to the County Council, its functions have been co-ordinated with the general health services of the County. Persons in need of treatment whose cases are referred in the first place to the Public Assistance Department, and who would formerly have been dealt with under the Poor Law Acts, are now referred, wherever possible, to the appropriate Committee of the County Council. Children form the majority of these cases of course, and many of them have been dealt with during last year under the Council's Orthopædic Scheme and by the Education Committee.

Institutional Provision for the Care of Mental Defectives.

The only alteration in the accommodation for Mental Defectives during 1936 was an increase in the number of males at the Sedgley Public Assistance Institution from 50 to 57, which took effect as from the 19th February. At the end of the year there were 293 certified cases in Institutions.

Nursing in the Home.

(a) General Nursing.

During the year, the County Nursing Association formed three new local Nursing Associations for general work only, viz. :—Audley (July) ; Lower Gornal, Sedgley (September) ; Quarry Bank (December) and there were no other changes or extensions in their organization.

As far as the Administrative County is concerned, there are now 86 Nursing Associations affiliated to the County Nursing Association, and nine which work independently. Sixty-nine of these Associations undertake midwifery in addition to general nursing.

(b) Infectious Diseases.

In the County Health Visiting Area, arrangements exist whereby local Medical Officers of Health, in the event of epidemics of measles or diarrhoea, can obtain the services of trained nurses to look after the cases in their own homes. Little advantage, however, has been taken of this arrangement, and during 1936 no application was received from any of the District Medical Officers of Health.

Midwifery.

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 731,700 whilst the health visiting work is limited to the special health visiting area of the County which now has a population of 432,140 as estimated by the Registrar-General.

274 midwives notified their intention to practice during the year. Of these 271 were trained and 3 were *bona-fide* midwives. There is an increase since last year of 6 trained midwives, and a decrease of one *bona-fide* midwife. In addition to these, 100 midwives residing in County Boroughs and adjoining Counties have also notified their intention to practice within the Administrative County, compared with 95 last year, but only 69 of these actually practised.

The ages of midwives who were practising in the Administrative County in the sixteen years 1921-1936, are indicated in groups in the following table, from which it will be observed that the majority were under 45 years of age :—

YEAR	21 to 44			45 to 64			65 & upwards			Totals.		
	North	Central	South	North	Central	South	North	Central	South	North	Central	South
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	103
1923	55	59	66	21	27	18	14	16	11	90	102	95
1924	50	56	62	22	26	19	14	11	12	86	93	93
1925	54	64	63	27	24	23	13	8	10	94	96	96
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	95
1928	58	60	79	24	29	13	3	5	5	85	94	97
1929	50	59	79	28	27	17	4	6	5	82	92	101
1930	54	63	65	26	23	20	4	5	5	84	91	90
1931	56	59	78	27	26	20	4	4	3	87	89	101
1932	53	57	59	27	28	34	4	2	3	84	87	96
1933	57	63	70	30	31	31	2	1	2	89	95	103
1934	47	63	63	33	29	32	4	4	2	84	96	97
1935	52	59	55	30	34	32	2	3	2	84	96	89
1936	47	66	60	34	28	30	5	2	2	86	96	92

The number of cases attended by midwives during 1936 in the three areas of the County are as follows : —

	No. of Mid- wives	Total Births (Live and Still- born)	Live and Still Births attended					†Births in respect of which no record is available.	
			*As Midwives			†As Maternity Nurses.			
			Births	% of total	Mean No. of cases per mid- wife	Births	% of total	No.	% of total
North	86	3012	1946	64.6	22.6	675	22.4	391	13.0
Central	96	3467	2460	70.9	25.6	592	17.1	415	12.0
South	92	6516	4686	71.9	50.9	692	10.6	1138	17.5
Totals	274	12995	9092	70.0	33.2	1959	15.1	1944	14.9

* Doctors not having been engaged for the confinements.

† Doctors having been engaged by the patients.

‡ These figures are in respect of births which (i) were attended by doctors, no midwife having been engaged; (ii) took place outside the Administrative County; (iii) took place in Institutions.

In addition to the cases included in the above table, the midwives attended patients having abortions and miscarriages as follows : —

	As Midwives.	As Maternity Nurses.	Total.
North	62	27	89
Central	57	31	88
South	61	27	88
	180	85	265

Since the Rules of the Central Midwives Board were altered so that more adequate attention could be paid to ante-natal care, every endeavour has been to induce women not to book for their confinement at the very last stage of pregnancy, as so commonly happened in the past.

In compliance with the Rules of the Central Midwives Board, 4,595 notifications have been received from certified midwives in 1936 under the four headings set forth in the following table, which includes figures for comparison with the past 10 years, together with the number of births attended by midwives : —

Year.	Number of Births attended by Midwives.	Sending for Medical Help.	Still-births.	Death of Mother.	Death of Child.
1927	10,282	2,564	212	6	115
1928	10,523	2,764	208	13	117
1929	10,154	3,154	233	17	127
1930	10,115	3,505	225	10	142
1931	9,787	3,741	221	17	140
1932	9,621	3,755	229	11	150
1933	8,839	3,789	203	11	154
1934	9,172	3,784	236	13	162
1935	9,155	3,865	226	14	147
1936	9,272	4,144	246	13	192

The following table shows to what extent midwives have had occasion to call in medical assistance at confinements over a period of 22 years. From this it will be observed that there has been a large increase in this period of the requests for medical help, which can be ascribed to the trained type of midwife that is now practising. This is also reflected in the increase in the fees paid by the County Council to medical practitioners, as shown in a subsequent table.

NUMBER OF PRACTISING MIDWIVES, CONFINEMENTS TAKEN BY
MIDWIVES AND DOCTORS' CALLS BEFORE, AT AND AFTER
CONFINEMENT, 1915—1936 : —

YEAR	No. of Practising Midwives at end of Year	Trained	Not Trained	No. of Confinements taken by Midwives as Midwives	Doctors Calls (Mother or Child)	% of Medical Calls
1915	320	129	191	11,325	1,209	10.7
1916	307	137	170	10,632	1,291	12.1
1917	301	145	156	10,377	1,202	11.6
1918	288	152	136	10,174	1,165	11.4
1919	284	179	105	10,616	1,809	17.0
1920	286	181	105	13,770	1,769	12.8
1921	301	207	94	12,800	1,948	15.2
1922	290	224	66	13,033	1,992	15.3
1923	287	230	57	11,637	1,894	16.2
1924	272	225	47	11,382	2,083	18.3
1925	286	247	39	11,780	2,219	18.8
1926	285	250	35	12,201	2,523	20.7
1927	274	252	22	10,282	2,564	24.9
1928	276	263	13	10,523	2,764	26.2
1929	275	262	13	10,154	3,154	31.0
1930	265	255	10	10,115	3,505	34.6
1931	277	268	9	9,787	3,741	38.2
1932	267	262	5	9,621	3,755	39.0
1933	287	282	5	8,839	3,789	42.9
1934	277	272	5	9,172	3,784	41.3
1935	269	265	4	9,155	3,865	42.2
1936	274	271	3	9,272	4,144	44.7

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

Causes of sending for Medical Aid	Northern District	Central District	Southern District	Total
PREGNANCY :				
Mal-presentation	—	40	12	52
Threatened Abortion	17	26	38	81
Puffiness of face and hands	5	5	5	15
Fainting	—	5	9	14
Varicose Veins	9	22	22	53
Fits	—	3	6	9
Vaginal Discharge	1	10	17	28
Unsatisfactory condition & general health	75	69	136	280
Excessive Sickness	11	18	19	48
Loss of Blood	39	18	27	84
History of previous Still-births and Abortions	—	3	4	7
Œdema of Legs	6	8	20	34
Albuminuria	44	63	78	185
Sore of Genitals	1	—	5	6
Contracted Pelvis	—	14	49	63
Abnormal Urine	—	—	13	13
Blood Pressure	—	—	5	5
	208	304	465	977
LABOUR :				
Premature Birth	—	13	4	17
Abnormal Presentation	34	28	88	150
Delayed or Difficult	183	221	321	725
Placenta Prævia	1	4	19	24
Hæmorrhage ante	9	25	43	77
Ditto post	11	26	26	63
Eclampsia	—	3	1	4
Prolapse of Cord	2	8	4	14
Lacerated Perinæum	183	178	354	715
Retained Placenta and Membranes	20	28	45	93
Unsatisfactory Condition	60	12	26	98
Inertia	23	54	63	140
Abortion	29	50	36	115
Purulent Discharge	—	—	3	3
Cough	—	1	3	4
Contracted pelvis	—	3	—	3
Albuminuria	—	1	—	1
Inverted Uterus	—	1	—	1
	555	656	1036	2247

Causes of sending for Medical Aid	Northern District	Central District	Southern District	Total
LYING-IN :				
High Temperature	27	34	69	130
Inflamed and painful leg	6	20	11	37
Convulsions	—	—	3	3
Unsatisfactory Condition	27	18	61	106
Offensive Lochia	—	—	2	2
Unusual Swelling of Breasts	—	13	7	20
Abdominal Swelling and tenderness	1	3	4	8
	61	88	157	306
CHILD :				
Deformities	10	7	18	35
Convulsions	3	3	9	15
Inflamed and discharging eyes	39	44	122	205
Feebleness and prematurity	32	58	103	193
Unsatisfactory Condition	30	14	66	110
Rash	6	2	8	16
Pemphigus	—	—	4	4
Spina Bifida	5	1	3	9
Hare Lip and Cleft Palate	3	2	6	11
Club Foot	1	4	3	8
Jaundice	—	3	5	8
	129	138	347	614
Grand Totals	953	1186	2005	4144

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

VISITS AND INTERVIEWS OF INSPECTORS, NOTIFICATIONS, INQUIRIES ETC., DURING THE YEAR 1936.

District	Notifications														Inquiries																
	Visits and Interviews	Medical Assistance						Deaths		Still-Births	Mother	Child	Puerperal Fever	Puerperal Pyrexia	Contact with infection	Laying out the dead	Artificial Feeding	Medical Assistance						Still-Births	Deaths		Puerperal Fever	Puerperal Pyrexia	Contact with infection	Laying out the dead	Artificial Feeding
		Ante-natal	Labour	Lying In		Child		Mother	Child																						
				High Temperature	Other Conditions	Inflamed	Eyes											Other Conditions													
North	388	208	555	27	34	39	90	61	2	45	5	11	31	16	64	1	1	27	3	52	6	2	2	3	5	9	31	1	---	---	
Central	432	304	656	34	54	44	94	90	6	58	9	23	55	14	68	5	3	34	6	47	9	1	6	3	9	20	54	---	1	---	
South	490	465	1036	69	88	122	225	95	5	89	8	47	65	17	73	4	1	69	4	157	21	1	5	7	8	35	65	5	---	---	
Totals	1310	977	2247	130	176	205	409	246	13	192	22	81	151	47	205	10	5	130	13	256	36	4	13	13	22	64	150	6	1	---	

On comparing these tables with similar ones in previous reports, it is found that medical aid is called in during pregnancy to a much greater extent than formerly, and this would be expected owing to the attention now paid to ante-natal care both by the midwives under the rules of the Central Midwives Board and by the ante-natal work of the Maternity and Child Welfare Scheme.

In addition to the routine inquiries conducted by the Midwives' Inspectors, ten irregularities were specially investigated, including two in respect of one midwife. As a result, eight midwives received letters of caution, and one was interviewed by the County Council acting as the Local Supervising Authority, who referred her to the Central Midwives Board, before whom she attended and was cautioned.

Since the Act came into operation in 1902, the names of 115 midwives have been removed from the Roll in consequence of action taken by the Local Supervising Authority.

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

In 1936, 12 District Nursing Associations who undertake Midwifery were subsidised to the extent of £507. At the end of the year there were 4 midwives in private practice receiving subsidies, and another midwife is provided with a telephone by the Local Supervising Authority in order that the area of her practice can be enlarged to include two somewhat isolated villages. On 31st December, 1936, there were 65 local Nursing Associations affiliated to the County Nursing Association, and 4 non-affiliated local Nursing Associations undertaking midwifery. The latter are Essington, Stafford, Yoxall and Tutbury Nursing Associations.

Under Section 2 (1) of the Midwives and Maternity Homes Act, 1926, a fee of £2 2s. 0d. was allowed by the County Council to a midwife as compensation for loss of practice on suspension after being in contact with an infectious case, the midwife not being in default.

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 ended March, 1937, 4,252 notifications of sending for medical help were received, and, out of this number, medical practitioners claimed their fees from the County Council in 2,232 cases, that is 52.5 per cent. of the possible claims.

The fees paid by the County Council were 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
			%	£ s. d.	£ s. d.
1925-26	2228	780	35	1100 15 0	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
1929-30	3319	1810	55	2352 17 6	723 6 9
1930-31	3506	1950	56	2631 2 0	616 15 3
1931-32	3775	2176	57	3223 12 6	602 3 6
1932-33	3794	2255	59	2574 17 9	627 3 9
1933-34	3604	2208	61	3034 4 0	645 5 6
1934-35	3744	2127	57	3080 2 6	893 4 9
1935-36	3995	2139	54	3137 11 0	1047 18 0
1936-37	4252	2232	52	3087 6 0	1477 15 0

No alteration has taken place in the income scale which came into operation on the 1st October, 1934, and is as follows :—

The amount recoverable to be assessed upon the net weekly income of the family, ascertained in the following manner :—

(1) Income to be taken into account :—

- (a) The whole of the weekly earnings, Unemployment Benefit, or Transitional Payments, of all members of the family. For this purpose the average earnings, etc., for six weeks up to date of assessment to be used.
- (b) The weekly value of any other income of, or property owned, by any member of the family.

(2) Deduct from total of above :—

- (a) 4s. 0d. per week in respect of each child under 14 years of age.
- (b) 4s. 0d. per week, or one-quarter of the weekly earnings of any member of the family, other than the husband, whichever is the greater.
- (c) Rent and Rates.

- (3) The balance to be treated as net income.
- (4) Where the net income as calculated above :—
- (a) Exceeds 35s. 0d. per week—Total fees to be reclaimed.
 - (b) Exceeds 27s. 6d. but is not more than 35s. per week—Half-fees to be reclaimed.
 - (c) Is 27s. 6d. per week or less—No claim to be made.

Inflamed and Discharging Eyes.

The following Table shows the cases for the last 13 years. One hundred and sixty-seven out of the total of 205 notified in 1936 were not severe, and, as will be noted from the table, 203 were completely cured. In two cases the vision was impaired, the condition in each case being due to gonorrheal infection. Only 20 cases were in-patients in hospital, 7 were treated in the out-patient department, and the others received treatment at home.

Year	CASES				Vision un-impaired	Vision impaired	Total Blindness	Deaths
	Notified	TREATED						
		At Home	In Hospital					
			In-patient	Out-pat'nt				
1924	109	89	20		107	1	.....	1
1925	138	96	*42		135	1	.....	1
1926	166	149	12	5	162	3	.....	1
1927	166	135	13	18	162	3	.....	1
1928	145	129	7	9	143	.....	.....	2
1929	193	170	14	9	190	.....	.....	3
1930	148	130	17	1	145	1	.....	2
1931	191	169	20	2	186	1	.....	4
1932	194	174	14	6	192	2	.....	.....
1933	185	160	19	6	183	.....	.....	2
1934	210	186	20	4	208	2	.....	.....
1935	179	162	14	3	177	2	.....	.....
1936	205	178	20	7	203	2	.....	.....

* One case removed from district; result not known.

Maternity Outfits.

The arrangements made in 1930 for the issue of maternity outfits at the various Clinics were continued, and in rural areas where there was no Clinic, Health Visitors were given charge of these. During the last year 81 outfits were sold, compared with 92 the year before, and two free issues were made.

Stillbirths.

It has already been noted that 554 stillbirths were registered during the year. Of these, 246 were reported by midwives under

their Rules, and on comparing this figure with those for the past 14 years I find that there is little variation in this number. The result of the investigations made by the Midwives' Inspectors into the cause of these stillbirths is as follows :—

Albuminuria	5
Ante-partum Hæmorrhage	1
Cord Prolapse	4
Cord round Neck	3
Deformities	25
Difficult Labour	7
Fall and Shock	3
Maceration	98
Malpresentation	11
Placenta Prævia	2
Premature	49
Spina Bifida	7
Unsatisfactory Condition of Mother	28
Injury during Birth	2
History of previous stillbirths and abortions	1

COUNTY BACTERIOLOGICAL LABORATORY.

Dr. J. Menton, the County Bacteriologist and Pathologist, reports that during 1936, 76,441 investigations were conducted at the County Bacteriological Laboratory, being an increase of 14,695 on the previous year. Of these, 54,106 were of a general bacteriological and serological nature ; 1,416 were in respect of biochemical and pathological investigations (excluding medico-legal work) ; 1,691 were bacteriological, biochemical, and pathological investigations in connection with medico-legal work ; and 19,228 were for the diagnosis and tests for cure of venereal diseases.

The general bacteriological and serological work was for the most part from the Administrative County, but of the milk examinations, 1,032 were undertaken for the City of Stoke-on-Trent, 115 for the County Borough of Dudley, 10 for the County Borough of Derby, and 28 for the County Borough of Walsall.

Of the tests for venereal diseases, 6,710 were from patients resident in Staffordshire, 10,413 from patients resident in the City of Stoke-on-Trent, 737 from patients resident in the County Borough of Dudley, 377 from patients resident in the Kesteven Division of Lincolnshire, and 991 from patients resident in other areas outside the Administrative County. With regard to the tests from Lincolnshire patients, these were conducted in accordance with the sanction obtained by the Kesteven County Council for such work to be done in this Laboratory.

The bulk of the bacteriological work was in relation to the direct diagnosis and prevention of infectious diseases, the supervision of the milk supply, and the bacteriological examination of drinking water for various Sanitary Authorities.

The General Medical Practitioners, the Medical Officers of Health, the Isolation Hospitals, the Venereal Diseases Clinics, the Poor Law Institutions and the Veterinary Officers, have made extensive use of the Laboratory. The whole-time Veterinary Scheme has been responsible not only for an increase in the milk investigations, but also under it many specimens have been received for the diagnosis of animal diseases, especially those which are communicable to man.

The various biochemical and pathological investigations were conducted for the Staffordshire General Infirmary, Standon Hall Orthopædic Hospital, the North Staffordshire Cripples' Aid Society, the Cottage Hospital, Newport, Shropshire, the Victoria Hospital, Lichfield, the Coroners officiating in the Administrative County, and in connection with medico-legal cases.

Experience has shown that in all suspected cases of food poisoning it is of the utmost importance to submit specimens of fæces and vomited material for bacteriological examination as soon as possible after the onset of the symptoms. Samples of blood should also be taken throughout the course of the illness, and in every instance the suspected article of diet, when available, should also be forwarded for investigation.

The details of the year's work are as follows :—

GENERAL BACTERIOLOGY AND PATHOLOGY.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Totals.
Water examinations	145	179	196	156	676
Milk examinations	6,721	8,136	6,210	6,558	27,625
Diphtheria	3,609	2,348	2,036	3,001	10,994
Tuberculosis	1,336	1,258	1,065	1,295	4,954
Cerebro-spinal Fever	25	20	14	25	84
Ringworm	38	20	14	57	129
Typhoid and Paratyphoid Fever.....	248	193	363	402	1,206
Brucella Infections	40	30	50	60	180
Dysentery (all types)	290	219	418	454	1,381
Food poisoning	516	364	696	838	2,414
Medico-legal investigations	544	638	211	298	1,691
Veterinary Work (other than milk)	166	255	120	1,163	1,704
Other Examinations	765	597	610	787	2,759
TOTALS	14,443	14,257	12,003	15,094	55,797

The 4,954 examinations under "Tuberculosis" included 4,032 sputa ; 110 specimens of pus ; 110 cerebrospinal fluids ; 70 other fluids ; 366 urines ; 20 faeces ; 206 biological tests ; 17 specimens of human organs and tissues ; and 23 others.

The 180 investigations under the heading "Brucella infections" included 173 specimens of blood from human beings, 11 of which gave agglutination reactions varying from 1 in 25 to 1 in 5,000. One hundred and forty-one samples of blood from cattle were also examined, and, in addition, 1,973 tests were conducted on samples of milk. The organism responsible causes contagious abortion in cattle and a type of undulant fever in man.

The majority of the serological tests for food poisoning were done for exclusion purposes, and, fortunately, proved negative, but there were three cases of mild Salmonella infection in various parts of the County.

In connection with the dysentery investigations, there were two cases of infection due to Sonne's bacillus, and one due to Flexner's bacillus.

During the year the Laboratory was called in to investigate 7 inquest cases and 9 police cases, the latter including the examination of specimens in connection with two charges of murder.

The 2,759 "Other Examinations" included 759 bacteriological and cytological examinations of various body fluids and exudates ; 154 blood cultures ; 41 examinations for Vincent's Angina ; 369 general examinations of urine ; and various miscellaneous investigations.

In connection with the milk examinations, the reasons for these and the sources of the samples are shown in the accompanying tables. It will be noticed that 21 samples of "Accredited" milk, 3 "Pasteurised" samples, and 2 samples of "Tuberculin Tested" milk, gave positive biological reactions for tuberculosis.

		Bacteriological Count and Coliform Content.			Biological Tests.			Grand Total.
		Satisfactory.	Unsatisfactory.	Total.	Negative.	Positive.	Total.	
For "Accredited" Standard and Licence	First Quarter	1216	194	1410	31	1	32	1442
	Second	1442	523	1965	19	1	20	1985
	Third	798	747	1545	184	19	203	1748
	Fourth	1735	452	2187	13	.....	13	2200
For "Tuberculin Tested" Standard and Licence	First	77	12	89	25	.....	25	114
	Second	94	13	107	28	.....	28	135
	Third	89	19	108	31	2	33	141
	Fourth	52	4	56	26	.....	26	82
For "Tuberculin Tested" (Pasteurised) Standard	First	.....	.....	.....	.....	.....	.....	.....
	Second	.....	.....	.....	.....	.....	.....	.....
	Third	.....	.....	.....	.....	.....	.....	.....
	Fourth	1	.....	1	.....	.....	.....	1
For Pasteurised Standard.	First	57	5	62	40	1	41	103
	Second	60	7	67	52	2	54	121
	Third	56	13	69	55	.....	55	124
	Fourth	55	8	63	49	.....	49	112
Milk & Dairies (Consolidation) Act, 1915.	First	554	91	645	1241	129	1370	2015
	Second	422	56	478	1269	171	1440	1918
	Third	360	206	566	1176	115	1291	1857
	Fourth	312	69	381	1527	160	1687	2068
School Milks.	First	83	18	101	121	10	131	232
	Second	43	35	78	128	6	134	212
	Third	12	13	25	114	8	122	147
	Fourth	100	35	135	4	.....	4	139
Submitted by farmers, retailers and others for their own information.	First	37	1	38	.....	.....	.....	38
	Second	14	7	21	.....	.....	.....	21
	Third	12	8	20	2	.....	2	22
	Fourth	32	1	33	.....	.....	.....	33
Tuberculosis Order, 1925.	First	.....	.....	.....	2	.....	2	2
	Second	.....	.....	.....	4	1	5	5
	Third	.....	.....	.....	4	.....	4	4
	Fourth	.....	.....	.....	4	1	5	5
		7713	2537	10250	6149	627	6776	17026

	Bacteriological Count and Coliform Content	Biological Test	Direct Film for Acid-Fast Bacilli.	Culture for Streptococci, etc.
<i>From the Official Sampler :</i>				
(a) Milk (Special Designations) Order, 1936	1680	346		
(b) Milk & Dairies (Consolidation) Act, 1915	1396	1289		
<i>From Official Veterinary Inspectors :</i>				
(a) Tuberculosis Order, 1925	77	13	19	2
(b) Milk & Dairies (Consolidation) Act, 1915	4844	3541	2285	94
(c) Milk (Special Designations) Order, 1936	339	393		
(d) School Milks				
<i>From other Veterinary Inspectors :</i>				
(a) Milk (Special Designations) Order, 1936		627	681	4
(b) For information		4		
<i>From Staffordshire Farm Institute, Producers, Retailers, etc. :</i>				
(a) "Accredited" Licence	1034			
(b) "Accredited" Standard	28			
(c) "Tuberculin Tested" Licence	11			
(d) "Tuberculin Tested" Licence	3			
(e) For information	87			24
<i>From Local Authorities in the Administrative County :</i>				
(a) Milk (Special Designations) Order, 1936	54	10		
(b) Milk & Dairies (Consolidation) Act, 1915	157	139		
(c) School Milk	11		1	
(d) Tuberculosis Order, 1925		3		
<i>From Authorities outside the Administrative County :</i>				
(a) Milk (Special Designations) Order, 1936	77	52		
(b) Milk & Dairies (Consolidation) Act, 1915	452	494	104	4
	10250	6911	3090	128

In addition to the above, the following examinations were also conducted :—

Examination for cause of taint			2
Examination of washings from Utensils			15
Examination of milk bottles for sterility			6
Phosphatase tests			169
Reductase tests			3784
			<u>3976</u>

The particulars of the biological and pathological investigations (excluding medico-legal work) were as follows : —

PATHOLOGICAL AND BIOCHEMICAL WORK CONDUCTED DURING THE
YEAR 1936.

Fractional Test Meals.

Specimens of gastric contents	350
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Urea (estimation of)

Urine	30
Blood	66
Cerebrospinal fluid	1

Glucose (estimation of)

Urine	.....	.....	.....	.....	.....	.....	13
Blood	.....	.....	.....	.....	.....	.....	48

Blood

Estimation of hæmoglobin	.....	.....	.....	.....	.....	.....	100
Leucocyte count	.....	.....	.....	.....	.....	.....	94
R.B.C. count	.....	.....	.....	.....	.....	.....	100
Reticulocytes	.....	.....	.....	.....	.....	.....	91
Differential leucocyte count	.....	.....	.....	.....	.....	.....	100
Platelets	.....	.....	.....	.....	.....	.....	6
Grouping	.....	.....	.....	.....	.....	.....	36
Wintrobe's Volume Index	.....	.....	.....	.....	.....	.....	66
Icterus Index	.....	.....	.....	.....	.....	.....	49
Bleeding time	.....	.....	.....	.....	.....	.....	4
Coagulation time	.....	.....	.....	.....	.....	.....	4
Sedimentation Rate	.....	.....	.....	.....	.....	.....	12
Estimation of Calcium	.....	.....	.....	.....	.....	.....	1
Van den Bergh Reaction	.....	.....	.....	.....	.....	.....	5
Bendien test	.....	.....	.....	.....	.....	.....	1

Urine

Estimation of diastase	.....	.....	.....	.....	.....	.....	3
Estimation of lead	.....	.....	.....	.....	.....	.....	1
Acetone derivatives	.....	.....	.....	.....	.....	.....	6

Fæces

Examination for occult blood	.....	.....	.....	.....	.....	.....	11
Chemical examination	1

Examination for Barbiturate

Cerebrospinal fluid	1
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Pathological Sections of human organs and tissues	216
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Total	1,416
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The details of the Venereal Diseases tests are shown in the following table : —

EXAMINATIONS OF PATHOLOGICAL SPECIMENS CONDUCTED UNDER THE
VENEREAL DISEASES SCHEME DURING THE YEAR 1936.

	For Detection of		For Wasser- mann Reaction	Sigma & Kahn Reactions	Other Examin- ations	Totals
	Spirochæta Pallida	Gonococci				
1st Quarter	.....	297	2007	2109	579	4992
2nd Quarter	.....	271	1913	1858	591	4633
3rd Quarter	.....	318	1843	1895	654	4710
4th Quarter	2	346	1819	2089	637	4893
Totals	2	1232	7582	7951	2461	19228

The 2,461 "Other examinations" consisted of : —

187 cerebrospinal fluids for cell count, protien estimation, and colloidal gold test ; 2,254 complement fixation tests for gonorrhœa ; the examination of 3 specimens of urine for gonococci ; the making of 15 cultures for gonococci ; and the examination of 2 pathological sections.

CHEMICAL LABORATORY.

Mr. E. V. Jones, the County Analyst, reports that during 1936 by far the largest number of samples analysed was under the Food and Drugs (Adulteration) Act, 1928. Under this Act he received the following samples, as tabulated :—

SAMPLES.	Number Examined.			No. Adulterated or below Standard.		
	Total	Formal	Informal	Total	Formal	Informal
Almonds, Ground	2	—	2	—	—	—
Arrowroot	3	—	3	—	—	—
Baking Powder	2	—	2	—	—	—
Barley, Pearl	3	3	—	—	—	—
Bicarbonate of Soda	3	1	2	—	—	—
Boracic Acid Powder	1	—	1	—	—	—
Borax	2	—	2	—	—	—
Brawn	5	—	5	—	—	—
Brimstone and Treacle	1	—	1	—	—	—
Butter	33	18	15	—	—	—
Cakes, Chocolate Roll	2	—	2	—	—	—
Cakes, Cream	2	—	2	—	—	—
Cheese, Cheddar	2	—	2	—	—	—
Cheese, Cheshire	1	—	1	—	—	—
Cheese, Crustless	1	—	1	—	—	—
Cheese, Gorgonzola	1	—	1	—	—	—
Chicken and Ham Roll	1	—	1	—	—	—
Chocolate	1	—	1	—	—	—
Cinnamon, Ground	4	—	4	—	—	—
Cocoa	1	—	1	—	—	—
Cocoa, Essence	2	—	2	—	—	—
Coconut, Dessicated	1	—	1	—	—	—
Coffee	3	1	2	—	—	—
Cornflour	5	2	3	—	—	—
Cream	5	—	5	—	—	—
Cream, Sterilized	5	—	5	—	—	—
Cream, Tinned	2	—	2	—	—	—
Cream of Tartar	1	—	1	—	—	—
Curry Powder	2	1	1	—	—	—
Custard Powder	4	—	4	—	—	—
Dandelion Coffee	1	—	1	—	—	—

SAMPLES.	Number Examined			No. Adulterated or below Standard.		
	Total	Formal	Informal	Total	Formal	Informal
Dripping	1	—	1	—	—	—
Dripping, Pork	1	—	1	—	—	—
Essence, Brandy	1	—	1	—	—	—
Essence, Cochineal Flavouring	1	—	1	—	—	—
Essence, Lemon Flavouring	1	—	1	—	—	—
Essence, Rum	1	—	1	—	—	—
Flour	1	—	1	—	—	—
Flour, Cake	1	—	1	—	—	—
Flour, Self-Raising	7	—	7	—	—	—
Flour, Self-Raising, Egg	1	1	—	—	—	—
Fruit, Mixed	4	—	4	—	—	—
Gelatine, Powdered	1	—	1	—	—	—
Ginger	2	—	2	—	—	—
Ginger, Ground	9	1	8	—	—	—
Glauber's Salt	1	—	1	—	—	—
Glycerin	2	—	2	—	—	—
Golden Syrup	3	1	2	—	—	—
Grape Fruit Butter	1	—	1	—	—	—
Gregory's Powder	1	—	1	—	—	—
Honey	5	—	5	—	—	—
Honey, Prepared	1	—	1	—	—	—
Iodine, Tincture of	2	—	2	1	—	1
Jam, Blackcurrant	3	—	3	—	—	—
Jam, Damson	2	—	2	—	—	—
Jam, Gooseberry and Strawberry	1	—	1	—	—	—
Jam, Plum	1	—	1	1	—	1
Jam, Raspberry	8	—	8	2	—	2
Jam, Strawberry	3	—	3	—	—	—
Lard	16	13	3	1	1	—
Lemon Curd	3	—	3	—	—	—
Lemon Milket	1	—	1	—	—	—
Liquorice Powder	1	—	1	—	—	—
Lozenges, Aniseed and Chlorodyne	1	—	1	—	—	—
Malt Extract with Cod Liver Oil and Parrish's Chemical Food	1	—	1	—	—	—
Magnesia	1	—	1	—	—	—
Margarine	3	—	3	—	—	—
Marmalade	6	—	6	—	—	—
Marmalade, Grape Fruit, Orange and Lemon	1	—	1	—	—	—

SAMPLES.	Number Examined.			No. Adulterated or below Standard.		
	Total	Formal	Informal	Total	Formal	Informal
Meat, Potted	1	—	1	—	—	—
Milk	2016	1111	905	189	108	81
Milk, "Accredited"	37	27	10	1	1	—
Milk, Pasteurized	37	27	10	1	—	1
Milk, Skimmed	1	1	—	—	—	—
Milk, Sterilized	50	43	7	1	1	—
Milk, "Tuberculin Tested"	21	11	10	—	—	—
Milkaroni	1	—	1	—	—	—
Milk, Condensed, Full Cream, Sweetened	1	—	1	—	—	—
Milk, Condensed, Full Cream, Unsweetened	2	—	2	—	—	—
Milk, Condensed, Machine Skimmed, Sweetened	5	—	5	—	—	—
Mincemeat	1	—	1	—	—	—
Mint Sauce	2	1	1	1	1	—
Oatmeal	1	1	—	—	—	—
Oil, Camphorated	4	—	4	—	—	—
Oil, Castor	2	—	2	—	—	—
Oil, Coconut	1	—	1	—	—	—
Oil, Cod Liver	5	—	5	—	—	—
Oil, Cod Liver and Malt Extract	1	—	1	—	—	—
Oil, Eucalyptus	2	—	2	—	—	—
Oil, Olive	12	—	12	—	—	—
Ointment, Boracic	3	—	3	—	—	—
Ointment, Iodine	1	—	1	—	—	—
Ointment, Zinc	3	—	3	—	—	—
Paraffin, Liquid	1	—	1	—	—	—
Parrish's Chemical Food	4	1	3	2	1	1
Paste, Cheese and Celery	1	—	1	—	—	—
Paste, Chicken and Ham	2	—	2	—	—	—
Paste, Chicken and Tongue	1	—	1	—	—	—
Paste, Crab	2	—	2	—	—	—
Paste, Lobster	2	—	2	—	—	—
Paste, Salmon and Shrimp	4	—	4	—	—	—
Paste, Sardine	1	—	1	—	—	—
Paste, Tongue and Turkey	2	—	2	—	—	—
Pears	2	—	2	—	—	—
Pepper	16	1	15	—	—	—
Pepper, Compound Prepared	1	—	1	—	—	—
Petroleum Jelly	1	—	1	—	—	—

SAMPLES	Number Examined			No. Adulterated or below Standard.		
	Total	Formal	Informal	Total	Formal	Informal
Pickles in Malt Vinegar	1	—	1	—	—	—
Polony	1	—	1	—	—	—
Pork Pie	1	—	1	—	—	—
Quinine and Cinnamon in Orange Syrup	1	—	1	—	—	—
Raspberry Vinegar and Olive Oil	1	—	1	—	—	—
Rice	5	3	2	—	—	—
Rice, Flaked	1	1	—	—	—	—
Rice, Ground	5	4	1	—	—	—
Rusks, Golden	1	—	1	1	—	1
Sage and Onion Stuffing	1	—	1	—	—	—
Sauce	2	—	2	—	—	—
Sausage	7	—	7	—	—	—
Sausage, Preserved	6	—	6	—	—	—
Semolina	2	2	—	—	—	—
Sild in Olive Oil	2	—	2	—	—	—
Spasburg Salts	1	—	1	—	—	—
Spice, Mixed	1	—	1	—	—	—
Spice, Mixed, Ground	1	—	1	—	—	—
Spirits, Gin	2	—	2	—	—	—
Spry (Vegetable Cooking Fat)	1	1	—	—	—	—
Suet, Beef	1	—	1	—	—	—
Suet, Beef, Shredded	3	—	3	—	—	—
Sugar, Demerara	9	6	3	—	—	—
Sugar, Icing	1	—	1	—	—	—
Sweets, Butter Creams	1	—	1	—	—	—
Sweets, Toffee	1	—	1	—	—	—
Tablets, Aspirin	1	—	1	—	—	—
Tablets, Sulphur	1	—	1	—	—	—
Tapioca	3	—	3	—	—	—
Tea	20	—	20	—	—	—
Vinegar, Malt	38	9	29	1	—	1
Vitacup	1	—	1	—	—	—
Walpines	1	—	1	—	—	—
Wine, Blackcurrant, Non-Alcoholic	1	—	1	—	—	—
Wine, Raspberry, Non-Alcoholic	1	1	—	—	—	—
Zinc, Starch and Boracic Powder	1	—	1	—	—	—
	2579	1293	1286	202	113	89

Of the above samples, those reported against were as follows : —

Iodine, Tincture of. One of the two samples submitted was found to be 20 per cent. deficient in Iodine.

Jam, Plum. The only sample submitted was not in accordance with the Food Manufacturers' Federation Standard. It contained only 63.5 per cent. of Soluble Solids against a minimum of 68.5 per cent.

Jam, Raspberry. Of the two samples reported against, one contained 92 parts per million of Sulphur Dioxide against a maximum of 40 parts allowed, and was also deficient in soluble solids, containing only 59.6 per cent. soluble solids against a minimum of 68.5 per cent. The other sample contained 17 parts per million excess of Sulphur Dioxide.

Lard. The only sample reported against proved to be lard compound, consisting of beef fat and cotton seed oil.

Milk. Of the 2,016 samples, 189 were reported against as follows : —

69 contained added water.

3 contained added water and were also deficient in fat.

104 were deficient in fat.

13 were deficient in fat and solids-not-fat.

Milk, "Accredited" One was deficient in fat.

Milk, Pasteurized. One contained added water.

Milk, Sterilized. One contained added water.

Of the 1,827 Milks passed as genuine, 136 were below the presumptive standard in solids-in-fat, which deficiency was shown by the Freezing Point Test to be due to natural causes, and not to the addition of water.

The average composition of the Milks, including "Accredited," Pasteurized, Sterilized and "Tuberculin Tested," was : —

	On all samples.	On genuine samples.
Solids-not-fat	8.79 %	3.71 %
Fat	3.64 %	8.83 %

Of 92 "Appeal to Cow" samples submitted, 43 were below the presumptive standard. Of these 43 samples, 24 were from single cows of the same herd at three different milkings.

The composition of the Milk from these 8 cows was :—

Cows.	MORNING.			EVENING.			MORNING.		
	12.2.36.			24.2.36.			25.2.36.		
	Solids not Fat.	Fat.	F.P.D. (Hortvet) ° C.	Solids not Fat.	Fat.	F.P.D. (Hortvet) ° C.	Solids not Fat.	Fat.	F.P.D. (Hortvet) ° C.
1	7.75	3.70	0.545	7.48	5.13	0.544	7.93	2.03	0.544
2	7.68	2.85	0.536	7.72	3.20	0.541	7.60	2.48	0.538
3	7.93	3.15	0.549	7.72	3.20	0.544	7.81	2.75	0.541
4	7.57	3.25	0.539	7.46	3.38	0.546	7.60	3.00	0.544
5	7.01	2.90	0.543	7.95	3.73	0.550	7.97	3.48	0.554
6	8.27	3.40	0.532	8.24	4.15	0.540	8.37	3.55	0.547
7	8.29	3.70	0.535	8.28	4.83	0.545	8.43	3.23	0.546
8	8.14	4.10	0.545	7.44	4.58	0.540	7.77	2.28	0.545

In the above table, it will be seen that although all the samples are below the presumptive standard of 8.5 per cent. solids-not-fat, the Freezing Point Depression (Hortvet) of each of the samples is above 0.530°C ., which figure is generally accepted as the minimum for genuine milk. The Freezing Point of water is zero on the Centigrade scale, whilst that of genuine milk is lower, usually about 0.544°C . Milk must, therefore, be cooled to a lower temperature than water to cause it to freeze, so that a mixture of milk, with a Freezing Point of 0.544°C ., and water would freeze somewhere between zero and 0.544°C ., according to the amount of water present; the greater the amount of water present the nearer would be the Freezing Point to zero. What is really ascertained in the Freezing Point Test is the amount by which the Freezing Point of the milk is depressed below that of water. The Freezing Point of milk is the least variable of all characters and is, therefore, generally considered the most reliable, not only for confirming the addition of water, but also for proving the purity of a genuine milk

when the solids-not-fat fall below the minimum limits of the Sale of Milk Regulations. Although it would be impossible to do the Freezing Point Test on all samples of milk submitted, this test is applied, in our Laboratory, to all samples having solids-not-fat below 8.5 per cent., so that when the deficiency is obviously due to natural causes, and not to the addition of water, we are able not only to save useless expenditure of time and money by our Inspectors visiting the farm, but also annoyance to the farmers by having to prove the deficiency was the fault of the cows, and not to their dishonesty or carelessness.

Mint Sauce. One of the samples contained 11 per cent. of vegetable matter, 9 per cent. of which consisted of Mint and 2 per cent. Ailanthus Leaves.

Parrish's Chemical Food. The two samples reported against were from the same source, the former, the informal one, was 30 per cent. and the formal sample 16 per cent. deficient in Calcium Phosphate, containing only 0.35 per cent. and 0.42 per cent., respectively, instead of 0.5 per cent.

Rusks, Golden. This sample was guaranteed to contain no artificial colouring matter, but, however, it contained a little coal tar dye.

Vinegar, Malt. One of the 38 samples submitted proved to be artificial vinegar.

FERTILIZERS AND FEEDING STUFFS ACT, 1926.

	Total.	Satisfactory.	Unsatisfactory.
Basic Slag	1	1	—
Feeding Meat and Bone Meal	1	1	—
Feeding Dried Blood	1	1	—
Dairy Meal	2	2	—
	5	5	—

Pharmacy and Poisons Act, 1933. Five samples were submitted under this Act.

Coroner Samples. Nine cases were sent to this Laboratory, consisting of 58 samples.

Police Samples. Nine samples were sent in connection with one case of uttering counterfeit half-crowns.

Drinking Waters. 466 Samples were submitted, of which 157 were of satisfactory quality chemically; 143 contained sewage or animal pollution; 21 were organically impure; 53 were of doubtful quality; 4 contained metallic contamination; 10 were certified as unsuitable on account of excessive hardness; 32 contained both animal and vegetable pollution; 4 contained animal organic pollution and were also excessively hard; 37 contained both animal organic pollution and metallic contamination; 1 contained sewage and metallic contamination and was also excessively hard; 2 were organically impure and also contained metallic contamination; 2 contained animal, vegetable and metallic contamination.

197 *River Waters*, of which 147 were for full and 50 for partial analysis.

89 *Effluents*, of which 82 were for full and 7 for partial analysis.

1 *Water* for full mineral analysis.

1 *Water* for metallic contamination.

1 *Water* for hardness.

11 *Swimming Bath and Bathing Pool waters*.

2 *Brine Bath Waters* for Saline content.

1 *Organs of Cat* for poisons.

1 *Organs of Dog* for poisons.

1 *Canary* for Carbon Monoxide poisoning.

1 *Spinal Fluid* for Luminal.

8 *Milks*.

3 *Urines*.

1 Sample of *Fæces*.

1 Sample of *Bricks*.

1 Sample of *Orange Pulp*.

1 *Deposit from Mine Shaft*.

1 *Sap from Silo* for Vitamin A.

ADDITIONAL WORK.

STOKE-ON-TRENT.

Samples.

Food and Drugs (Adulteration) Act, 1928	.....	793
"Appeal to Cow" Samples	.....	5
Fertilizers and Feeding Stuffs Act, 1926	.....	5
Rag Flock Regulations, 1912	.....	5
Fertilizers	.....	5
Vomit	.....	1
Coroner Samples	6

NEWCASTLE-UNDER-LYME.

Food and Drugs (Adulteration) Act, 1928	179
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HOSPITALS.

In my Annual Report for 1930 full details were given of the County's Hospital Services, and I have already referred, on page 18, ¹⁷ to the County Council's proposals with regard to Public Assistance Institutions under their control.

The County's Orthopædic Hospital at Standon Hall has continued to give excellent service. Ninety-five of the beds there are allotted to tuberculous conditions, 10 to cases sent by the Education Committee, 10 to Health Visiting Committee cases, and 5 for the use of the Public Assistance Committee. The Hospital works in close association with nine voluntary After-care Centres, four of which are staffed by the same Visiting Surgeons who attend the Standon Hospital, and the in-patient orthopædic treatment undertaken by the County Council is centralized at this institution. During 1936, 158 cases were treated for the Joint Tuberculosis Committee, of which 66 were discharged to attend the After-care Centres and 4 patients died. The Education Committee were responsible for 30 cases during the year, the Health Visiting Committee for 19, and the Public Assistance Committee for 4. These numbers give some indication of the lengthy period of treatment required for orthopædic cases, and in order that the education of the patients shall not suffer, all those of school age who are able to receive instruction are under the control of four teachers. In view of the nature of the disabilities of the patients, special teaching has to take the place of the ordinary methods.

During the year, consideration was given to the accommodation in the Hospital generally. It has been found that the closed-in wards in the house have not proved as satisfactory in treatment as the open-air wards, and difficulties have been experienced in conveying patients from the upper floor to the gymnasium and the treatment rooms. It is proposed to make provision for the 24 beds, now in the Administration Block, in a new pavilion, and to provide 16 additional beds to make up a nursing unit of 40. The 16 additional beds will be utilised as follows :—

- 5 beds for the Health Visiting Committee. These beds had already been authorised owing to the extension of the Area, and they are at the moment being found in outside institutions.
- 7 beds for the Education Committee, also at present in outside institutions.
- 3 beds for the Tuberculosis Committee, previously authorised as emergency beds.

In planning it was found that it was more convenient to have a unit of 40 than one of 39, although 39 was the actual number of beds required, so that the additional bed can be used for any extra case that may be sent by the various Committees.

Attached to the new pavilion there will be an isolation Block of 6 beds for such non-notifiable infectious diseases as measles, whooping-cough and chickenpox. It has been found in practice that adequate isolation for such diseases at Standon Hall is not possible, so that during epidemic time the control of the spread of infection is difficult, even though the children are nursed on open-air lines.

As well as these additions for the patients, the County Council have decided to improve the staff accommodation at Standon Hall. By utilising the rooms now used as wards in the Administration Block, and by a further extension of the old Rackets Court, it is proposed to make arrangements whereby all the nursing staff will have single rooms and the domestic staff will have greatly improved accommodation.

A new gymnasium is also to be built and alterations and additions to the Steward's house carried out.

MATERNITY AND NURSING HOMES.

At the end of the year the number of premises registered under the Nursing Homes Registration Act, 1927, was 23 ; three exemptions from registration previously allowed were continued. Five applications for registration were received in 1936, and were granted. Four Homes were given up. Of the 23 Homes registered, 13 were for one or two beds only. The County Council have not delegated any of their powers under the Nursing Homes Registration Act, 1927, to District Councils, nor have any applications been received for such delegation.

County Council Maternity Units.

At the Sedgley Public Assistance Institution there is a special block known as the Rosemary Ednam Maternity Home, built by the late Board of Guardians, in which there are 9 beds for paying patients and 2 for Public Assistance cases, whilst at the Wordsley Public Assistance Institution there is a special unit containing 12 beds for private cases and 2 for Public Assistance cases. Patients whose home conditions make it inadvisable for the confinement to

take place there can be sent to either of these Maternity Units by the Health Visiting Committee, or where some complication of pregnancy makes it desirable that the confinement should take place in hospital. Apart from these Maternity Units the County Council have arrangements with the Mrs. Legge Memorial Home, Wolverhampton, where prospective unmarried mothers can be sent for their confinements and remain there for six months. The County Council contribute 40/- per patient per week for six weeks, the cost of the remainder of the period being defrayed from philanthropic sources. In 1936, 12 cases were admitted to this Home.

The County Council also have arrangements for the admission of patients from the Administrative County to Cleveland House, Wolverhampton, an institution for the reception of expectant mothers suffering from venereal disease. In 1936, ten such patients were treated, seven of whom were admitted during the year.

In addition, arrangements have been made for midwifery cases to be sent from the Health Visiting Area to the following Hospitals and Maternity Homes : —

Ashbourne (Derbyshire).

Newport (Salop).

Bath Road Maternity Home, Wolverhampton.

North Staffordshire Royal Infirmary, Stoke-on-Trent.
Crewe.

Longton Cottage Hospital.

Corbett Hospital, Stourbridge.

Women's Hospital, Wolverhampton.

Birmingham Maternity Hospital.

Derbyshire Hospital for Women, Derby.

The cases so sent are limited to those who live in unsatisfactory home conditions or have some complication in connection with their pregnancy which makes it unsafe for them to remain at home. During the year, 113 patients who complied with these conditions were sent by the County Council to the Institutions mentioned, and 13 to the maternity wards of Public Assistance Institutions.

In addition, twenty women were admitted to the Ashbourne Maternity Home, Derbyshire, but paid their own fees, the County Council merely guaranteeing any loss which the Derbyshire Authority might sustain if a patient was subsequently unable to pay the accepted fee.

MATERNAL MORTALITY.

In the accompanying table the maternal mortality rate for the Administrative County, showing the deaths per thousand (live and still) births in the last eight years, is given.

Year	Total (Live and Still) Births.	DEATHS FROM		Maternal Mortality per 1,000 (Live and Still) Births	
		Puerperal Sepsis	Other Diseases and Accidents of Parturition	Staffs.	England and Wales.
1929	13,675	17	42	4.3	4.1
1930	13,823	22	23	3.2	4.2
1931	13,338	11	29	3.0	3.9
1932	12,917	21	29	3.9	4.0
1933	11,960	19	18	3.1	4.3
1934	12,497	28	27	4.4	4.4
1935	12,751	20	35	4.3	3.9
1936	12,995	14	33	3.6	3.6

It will be observed that the maternal mortality rate for 1936 is less than that for the previous year. In view of the efforts that are being made to lessen the diseases and accidents of childbirth it is gratifying to note this decrease, but it should be pointed out that, dealing with such few numbers as we do, fluctuations in the rate are bound to occur from year to year. Thus, although there are only 8 fewer maternal deaths than in 1935, the rate per thousand births has been reduced from 4.3 to 3.6. It will be seen that the Staffordshire rate is the same as that for England and Wales, and that, taking the figures over the last 8 years, we have generally had an average in the neighbourhood of that for the country as a whole. Whilst this should not induce us to relax our efforts to lessen maternal mortality, it should be realised that although the Commission set up by the Government to study this question reported that approximately 50 per cent. of maternal deaths were preventable, it does not follow that by taking certain steps a Local Authority can halve its maternal mortality rate in any given time. So many factors are involved that I think it would be expecting too much to promise to halve a rate as low as 3.6 deaths per thousand births, even though more and more advantage is being taken of the facilities available in the County for the supervision of pregnant women.

It is the duty of a midwife to notify all deaths that occur in her practice, whether as a midwife or as a maternity nurse. This rule only relates to the period in which she is actually in attendance, and, consequently, if the patient is removed to Hospital, or not being attended at the time of death by the midwife, the death is not

reported by her. During the year 13 deaths were so reported out of a total of 47 maternal deaths registered.

The causes of death in these cases were as follows :—

Bronchitis	.....	.....	.....	.....	.....	1
Eclampsia	.....	.....	.....	.....	.....	1
Embolism	.....	.....	.....	.....	.....	5
Heart Failure	.....	.....	.....	.....	.....	2
Obstetric Shock ; Prolonged Second Stage	.....	.....	.....	.....	.....	1
Post-Partum Hæmorrhage	.....	.....	.....	.....	.....	3

In previous reports full details were given of the scheme approved by the County Council for providing the services of Obstetric Consultants in such cases where the family doctor desires his assistance at any time during pregnancy, labour, or the puerperium. This part of the scheme has only been used to any appreciable extent in recent years, and in 1936, Consultants were called out on 160 occasions, as against 83 in the previous year. It is very gratifying to note that the facilities the County Council offer are so much appreciated by the general practitioner.

Under the same scheme, Ante-natal Clinics are in existence at most Infant Welfare Centres, and midwives are encouraged to take their patients there for examination by the Medical Officer. At these Centres no treatment is given, but if such is found necessary the midwives are advised to send the patients to their own doctors.

INVESTIGATION OF MATERNAL DEATHS.

The same arrangements as for 1931 still hold good for investigating maternal deaths. This work is carried out by the Medical Officer of Health of the district concerned or by one of the Assistant Medical Officers of the County Council.

Reports on each maternal death are forwarded to the Ministry of Health when completed, for the information of the special committee set up by that department to deal with this matter. This has been referred to previously on page 47.

PUERPERAL FEVER AND PUERPERAL PYREXIA REGULATIONS.

In previous Annual Reports the scheme adopted by the County Council for carrying out the duties imposed by these Regulations

was set forth. The following is the number of notifications during 1936 :—

PUERPERAL PYREXIA NOTIFICATIONS, 1936.

		<i>In Health</i> <i>Visiting Area.</i>	<i>Not in Health</i> <i>Visiting Area.</i>	<i>Total.</i>
Urban Districts	.....	33	34	67
Rural Districts	.....	14	—	14
				<hr/> 81 <hr/>

The case rate per thousand total births (live and still-births) for the County was 6.2, whilst that for England and Wales was 9.6.

Puerperal Pyrexia is defined as any febrile condition occurring in women within 21 days after childbirth or miscarriage, in which a temperature of 100.4 or more has been sustained during a period of 24 hours or has recurred during that period. Cases of puerperal fever are included in this definition, and, as the latter condition can still be notified, the following are the notifications :—

PUERPERAL FEVER NOTIFICATIONS, 1936.

		<i>In Health</i> <i>Visiting Area.</i>	<i>Not in Health</i> <i>Visiting Area.</i>	<i>Total.</i>
Urban Districts	.....	8	6	14
Rural Districts	.....	8	—	8
				<hr/> 22 <hr/>

The case rate per thousand total births (live and stillbirths) for Staffordshire is 1.7 as compared with 3.3 for England and Wales.

The midwives under their rules have also to notify to the Local Supervising Authority any rises of temperature in their practices, and these, which number 130, were specially investigated by the Midwives' Inspectors, who reported that the conditions to which they were due were as follows :—

Albuminuria	.....	.....	.....	.....	.....	4
Cellulitis	.....	.....	.....	.....	.....	1
Emotional State	.....	.....	.....	.....	.....	4
Lacerated Perinæum	.....	.....	.....	.....	.....	8
Mastitis	.....	.....	.....	.....	.....	22
Offensive Lochia	.....	.....	.....	.....	.....	1
Phlebitis	.....	.....	.....	.....	.....	1
Phlegmasia Alba Dolens	.....	.....	.....	.....	.....	3
Post-Partum Hæmorrhage	.....	.....	.....	.....	.....	1
Retained Membranes	.....	.....	.....	.....	.....	2
Sapræmia	.....	.....	.....	.....	.....	9
Septicæmia	.....	.....	.....	.....	.....	8
Toxæmia	.....	.....	.....	.....	.....	5
Unsatisfactory General Condition	.....	.....	.....	.....	.....	4
Appendicitis (Query)	.....	.....	.....	.....	.....	1
Bronchitis	.....	.....	.....	.....	.....	1
Chill	.....	.....	.....	.....	.....	3
Constipation	.....	.....	.....	.....	.....	4
Debility	.....	.....	.....	.....	.....	5
Erysipelas	.....	.....	.....	.....	.....	1
Influenza	.....	.....	.....	.....	.....	19
Pneumonia	.....	.....	.....	.....	.....	4
Rheumatism	.....	.....	.....	.....	.....	1
Scarlet Fever	.....	.....	.....	.....	.....	1
Septic Teeth	.....	.....	.....	.....	.....	1
Tonsilitis	.....	.....	.....	.....	.....	2
Tuberculosis	.....	.....	.....	.....	.....	7
Tuberculosis (Query)	.....	.....	.....	.....	.....	1

It will be observed that in many instances the rise of temperature could not be definitely associated with the puerperal state, but 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, so that appropriate treatment could be given. Such cases as comply with the definition given would then be notified by the medical practitioner under the Puerperal Pyrexia Regulations, and, during the year, under the Health Visiting Committee's Scheme a Consultant's opinion was obtained in 4 cases, 36 patients being sent to hospital.

In addition to the cases referred to above, it was ascertained that 14 patients from the Health Visiting area were sent to hospital, and 3 were seen by a Consultant, through other agencies.

INFANTILE MORTALITY.

The infant mortality rate for 1936 was 67 per thousand live births, as against 66 in the previous year. The rate in Urban Districts was 68 compared with 69, and in the Rural Districts 63 as against 56 in the previous year. In England and Wales in 1936 the infant mortality rate was 59 compared with 57 last year. In the table below is shown the rate for the last ten years and also that for England and Wales as a whole. It will be noted that, if the years 1927 and 1929 are left out of account, the infant mortality rate in the County has varied very little. Also shewn in this table are the various causes of infantile deaths in Staffordshire for the same period.

In my remarks on Page 51 on the table showing the mortality at different ages from various causes, I drew attention to the large number of deaths occurring in infants under one year of age ascribed to the conglomerate group of causes—congenital debility, premature birth, malformations, etc.—and it will be observed that out of 837 deaths in children under one, no fewer than 465 were due to these causes. In the table given below are shown the death rates per thousand live births during the last decade from these conditions, and it will be seen that, far from decreasing, the rate has increased gradually year by year. Included in this group of causes are several conditions upon which no public health activities could have any affect; for instance, malformations are accidental causes of death which cannot be foreseen or prevented, and from the point of view of the prevention of infant mortality they have no great significance, but other conditions, such as debility, premature birth, birth injuries and difficult labours, can be affected by measures designed to safeguard the health of the mother, for both stillbirths and deaths of the newly born are, in the main, due to some maternal state acting on the child before birth. These conditions are ones with which the Maternity Service is designed to deal, and with the improvements of the facilities offered by this service in recent years one would have expected the mortality rate in such conditions as these to have fallen year by year. The other prolific causes of infantile deaths, such as bronchitis and pneumonia, have shown a tendency to decline and their numbers in the worst years are much less than those in the group I have referred to.

Year.	Live Births.	Deaths of Children under one year of age from Congenital Debility, Malformations, Premature Birth, Etc.	Death-rate per 1,000 Live Births
1927	13,856	444	32.0
1928	13,742	412	30.0
1929	13,125	415	31.6
1930	13,243	401	30.3
1931	12,752	446	35.0
1932	12,335	436	35.3
1933	11,424	403	35.3
1934	11,951	401	33.5
1935	12,174	403	33.1
1936	12,441	465	37.4

54 *Infantile Mortality—Clinics and Treatment Centres— Health Visiting Scheme.*

Under the rules of the Central Midwives Board, deaths of infants within the first 10 days of life are notified by midwives, and 192 deaths were so reported, the causes of death being as follows :—

Asphyxiated	12
Congenital heart	16
Convulsions	17
Deformities	16
Feebleness and prematurity	108
Hæmorrhage (Cerebral)	3
Hæmorrhage (Internal)	2
Inattention at Birth	2
Injuries at Birth	7
Jaundice (Septic)	3
Overlain	1
Pneumonia	1
Pyloric Stenosis	1
Unsatisfactory general condition	3

CLINICS AND TREATMENT CENTRES.

The number of Clinics and Treatment Centres was set out in detail in the 1930 Report, and the changes in each subsequent year have been stated in my Annual Reports.

The changes in Infant Welfare Centres which have taken place during 1936 are given in the section of the Report below, dealing with the Health Visiting Scheme.

HEALTH VISITING SCHEME.

As I have already mentioned, the County Health Visiting Area consists of 17 Urban and 10 Rural Districts, which have a total population of 432,140.

During 1936, the various schemes which had been established and extended in previous years continued smoothly, and except for minor additions there has been no outstanding development. Towards the end of the year an extension was approved comprising several new Infant Welfare Centres and special Ante-natal Clinics, together with additional sessions of existing ones, but it could not be put into effect until 1937.

In the following pages I have detailed the year's work in each branch of this service.

Centres and Clinics.

There are 38 Combined Centres (i.e. Minor Ailment Clinics and Welfare Centres) and 23 Welfare Centres in the County Health Visiting Area. The majority of these Centres are equipped for ante-natal work, and in nine instances special sessions are held.

In addition to the above there is a Voluntary Welfare Centre at Kings Bromley which is not included in the County Scheme.

The work of the County Infant Welfare Centres and Ante-natal Clinics is chiefly educational, cases requiring treatment being sent to their family doctor, except patients suffering from crippling conditions and those who must be seen by an Ophthalmic Surgeon.

In view of declining attendance, due principally to the sparsely populated area, the Cauldon and Waterhouses Centre was closed in March. On the other hand, however, three new Welfare Centres were opened during the year, as follows : —

Berkswich	.....	Fortnightly	.....	From 19.2.36.
Tutbury	.....	Weekly	.....	From 28.2.36.
Fazeley	.....	Weekly	.....	From 9.3.36.

The Centre at Tutbury is combined with a Minor Ailments Clinic.

At Rushall and Essington more suitable premises were obtained and in each case the transfer of the Centre has proved beneficial.

Concentration on the development of the ante-natal scheme has continued, and, as previously stated, nine Clinics now have special half-day sessions for this work, two having been commenced during the year, viz. : —

Rugeley	.....	Fortnightly	.....	From 12.3.36.
Wednesfield	.....	Fortnightly	.....	From 16.3.36.

In addition, a second half-day session each week was commenced at Willenhall on the 5th May.

During the year, 1,659 expectant mothers attended the Ante-natal Clinics, with a total attendance of 4,568, and the following table indicates the nature of the complaints found. When treatment is required, the patient is referred to her own doctor, through the medium of the midwife if one has been engaged, except for dental conditions. Treatment of the latter can be given under the County Council scheme, and the patient is offered the facilities provided.

Abnormal Urine—Albumin	59
Sugar	9
Anæmia	83
Bronchitis	56
Constipation	163
Contracted Pelvis	58
Dental Caries	415
Gastritis	6
Goitre	32
Graves Disease	1
Hæmorrhoids	25
High Blood Pressure	74
Hyperemesis	25
Insomnia	10
Mastitis	2
Nipples abnormal	23
Vaginal Discharge	70
Valvular Disease of the Heart	38
Varicose Veins	166
Venereal Disease	2

In the table at the end of the report will be found details of the work of the Centres and Clinics, from which it will be seen that during 1936, apart from the attendances at Ante-natal Clinics mentioned above, 41,469 attendances were made by children under one year, and 43,155 by children between one and five years.

Rural Ante-natal Scheme.

This scheme was inaugurated to cover those portions of the Rural Districts where no Ante-natal Clinics exist, and under it a midwife can refer her uninsured expectant mothers to their own doctors for pre-natal examination, whether their condition seems normal or not. This examination is to supplement the one made by all midwives under their rules at the time they book each case. If it is found that any treatment is necessary the midwife concerned is informed of this so that she can send the doctor the ordinary "Record of Sending for Medical Help" provided for in the Rules of the Central Midwives Board. Then, if the family doctor desires to obtain a Specialist's opinion of the case, as previously stated, the County Council have made arrangements with Consulting Obstetricians in various parts of the County, and if the Consultant thinks that admission to Hospital is necessary he arranges for this. It will be observed, therefore, that by this scheme women living in the rural areas of the County are not in any way handicapped, as they used to be in former days, when it was not easy to obtain skilled advice owing to their isolation.

This is the first complete year's working of the scheme throughout the area concerned, and the response was mainly satisfactory, although there is room for improvement, 464 expectant mothers being examined in this way.

As a result of the examinations it was found that 322 confinements could safely take place at home with a midwife only in attendance, but it was necessary to give advice to 60 patients.

In 108 cases further examinations were recommended, and, as a result, in three instances the doctors considered it necessary to be present at the confinements, whilst 3 further patients were recommended for institutional treatment.

The primary examinations revealed that 13 patients should be delivered by doctors, and in 9 other cases it was considered that it was undesirable or unsafe for the confinement to take place at home.

Nine patients were referred to Consulting Obstetricians, 2 were recommended X-ray examinations, and in one case a laboratory test was thought necessary in view of glycosuria.

In addition, 20 of the patients included above required dental treatment, and they were offered the facilities afforded by the County Council Scheme.

Orthopædics.

The County Council have not established any Orthopædic Clinics, but have arrangements with voluntary bodies who have established Clinics at Leek, Stourbridge, Hartshill, Birmingham, Stafford, Lichfield, Tamworth, Walsall and Dudley, where cases are received on payment.

Ninety-four new cases, as against 97 last year, were sent to Orthopædic Clinics for out-patient treatment in the first instance, as follows :—

Bow Legs	.....	.....	.....	.....	.....	12
Club Foot	.....	.....	.....	.....	.....	17
Flat Feet	.....	.....	.....	.....	.....	3
Fracture	.....	.....	.....	.....	.....	2
Hip Deformities	.....	.....	.....	.....	.....	3
Knock Knees	.....	.....	.....	.....	.....	7
Knock Knees allied with Flat Feet	.....	.....	.....	.....	.....	10
Paralysis	.....	.....	.....	.....	.....	16
Rickets	.....	.....	.....	.....	.....	5
Spinal Curvature	.....	.....	.....	.....	.....	4
Torticollis (Wry-neck)	.....	.....	.....	.....	.....	7
Miscellaneous	.....	.....	.....	.....	.....	8

It will be noted that only five cases of rickets are given in this list, but of course there are many more conditions, classified under other headings, of which rickets has probably been the primary cause.

I give below details of the out-patient attendances, etc. during the year : —

No. of children on books at 31.12.35	160
New cases referred during 1936	94
	<hr/>
	254
Removals on account of : —	
Discharged cured	26
Left the area	7
Referred to a General Hospital	1
Attained school age	38
Transferred to Joint Committee for Tuberculosis	1
Treatment refused	19
Died	2
No treatment necessary	4
	<hr/>
	98
No. of cases at end of year	<hr/>
	156

The total number of attendances at Out-Patient Clinics during the year was 2,149.

Nineteen children received in-patient treatment at Standon Hall Orthopædic Hospital, nine of whom were admitted during the year. As mentioned in my last Report, pending the extension of accommodation at Standon Hall, the Health Visiting Committee have authorised the use of five beds at outside institutions. These are used mostly for short stay cases. In this way twenty-four other children under five years of age received in-patient treatment, twenty-two being admitted during 1936. Fifteen patients were treated at the Hartshill Orthopædic Hospital, eight at the Birmingham Cripples' Hospital and one at St. Gerard's, Coleshill.

Artificial Light Treatment.

The facilities available for ultra-violet light treatment are confined to the Leek and Lichfield areas. The Health Visiting Committee have a fully equipped Clinic at the Lichfield Infant Welfare Centre, whilst at Leek an arrangement has been entered into with the Cripples' Aid Society there for the treatment of our cases. At each place the patients are under supervision by our Assistant Medical Officers.

During 1936, 39 children under 5 years of age received treatment at the Lichfield Clinic, 25 being referred for the first time, and the total number of attendances was 831. At Leek 29 patients were treated, including 21 new cases, 692 attendances being made.

The ailments for which the patients were referred to the Clinics are shown below, and in the majority of cases the conditions improved under ultra-violet radiation : —

Bronchitis	.....	.....	.....	.....	.....	2
Debility and Malnutrition	.....	.....	.....	.....	.....	26
Enlarged Glands and Tonsils	.....	.....	.....	.....	.....	6
Marasmus	.....	.....	.....	.....	.....	4
Pink Disease	.....	.....	.....	.....	.....	1
Rickets	.....	.....	.....	.....	.....	29

Ophthalmic Treatment.

The eye cases in children under 5 years of age, seen during the year by the County Ophthalmic Surgeon, included 104 new ones. For seventy of these, mostly cases of squint, glasses were prescribed, and the Health Visiting Committee provided them in 19 cases. In one other case half the cost was allowed. Generally, where there was unilateral squint the sound eye was occluded, but if this was found to be impracticable, atropine was inserted weekly until it was found possible to have the eye occluded. These children were kept under constant supervision.

In 11 of the remaining 34 cases advice or treatment was necessary, and this was given.

Patients seen in previous years were re-examined during 1936, and the total number of attendances at the Clinics, including both old and new cases, was 322.

Ophthalmia Neonatorum.

Ophthalmia Neonatorum is defined as a purulent discharge from the eyes of an infant occurring within twenty-one days from the date of its birth, and is a notifiable disease. During 1936, 57 such cases occurred in the County Health Visiting Area, and in 54 instances home nursing was carried out by the Health Visitors. Five children attended hospitals as out-patients and six were admitted for treatment. As to results, in 54 cases the vision was unimpaired two children being still under treatment at the end of the year, and one having left the area before the result was known. The County Council has arrangements for the treatment of this condition at the North Staffordshire Royal Infirmary, Stoke-on-Trent, The Birmingham and Midland Eye Infirmary, and the Wolverhampton and

Midland Counties Eye Infirmary. The children who were referred to hospitals this year, however, were sent through other channels,

Dental Treatment.

The scheme for the dental treatment of expectant and nursing mothers and pre-school children, which commenced on the 2nd September, 1935, and on which I commented fully in my last report, has continued satisfactorily, with very gratifying results. From a full year's working, a summary of which is given later, it is apparent that there is tremendous scope in this branch of the work of the Health Visiting Committee, and that the inception of the scheme was fully justified.

There has been no change in administration, but arrangements were made during the year for additional special clinics at Brownhills, Great Wyrley, Kinver, Norton Canes and Wednesfield. The County Council have continued to undertake a similar service for the Maternity and Child Welfare Committee of the Stafford Borough Council, at an agreed payment.

Unfortunately, it has not yet been possible to establish the dental workshop I mentioned last year, for the necessary accommodation is not yet available, so that the dentures required are still prepared by Dental Mechanics in private practice.

As regards the treatment of expectant and nursing mothers, experience proved that the question of the administration of general anæsthetics required special consideration. The majority of mouths treated during the year presented very septic conditions, with extensive decay and chronic pyorrhœa as prominent symptoms. Such conditions are very detrimental to the mother and possibly to her child, and several cases have occurred in which it was considered inadvisable to proceed with the operative work under a local anæsthetic by injection. Some idea of the conditions found generally will be more readily understood when it is known that the average number of extractions per case was 6.7. Early in 1937, therefore, the Committee authorised the admission of patients requiring extensive treatment to suitable institutions for 24 hours, or longer if necessary, and the employment of the Medical Officers of the Institutions for the purpose of administering general anæsthetics. The County Dental Staff carry out the operative treatment in such cases.

An additional difficulty encountered in respect of expectant mothers has been the advanced state of pregnancy at their first visit, with the result that it has not been possible entirely to free their

mouths of septic teeth before the confinement, and treatment has had to be postponed until later. This is mainly accounted for by the infancy of the scheme and the number of patients requiring treatment when it commenced. As time goes on, therefore, it should be possible for this class of patient to be referred earlier in pregnancy and so obviate the difficulty.

It is gratifying to report that many adult patients in expressing their appreciation of the dental scheme, remark on the improvement to their general health as a result of the treatment.

During 1936, the number of patients in the County Health Visiting Area treated for dental defects by the staff of the County Council was 591, comprising 362 expectant and nursing mothers and 229 "toddlers."

In the following tables the treatment given is enumerated :—

EXPECTANT AND NURSING MOTHERS.

Area.	No. treated.	Total Attendances.	Extractions.	Fillings.	Scalings.	Sundries.	Dentures Completed.
Audley	10	33	62	—	1	12	4
Brierley Hill.....	21	67	108	12	1	37	8
Brownhills	56	187	318	7	2	27	2
Darlaston	24	129	290	—	3	51	20
Huntington	2	13	9	—	—	17	4
Kidsgrove	62	266	335	—	—	57	9
Leek	6	11	27	—	—	6	2
Lichfield	66	433	364	41	6	141	22
Quarry Bank	19	86	131	—	—	40	6
Sedgley	42	184	232	14	8	85	27
Stafford	8	46	69	10	—	6	1
Tamworth	12	30	76	3	—	2	—
Willenhall	34	145	397	—	1	10	4
Totals	362	1630	2418	87	22	491	109

In two instances patients required general anæsthetics. One was admitted to a Cottage Hospital and the other to a Public Assistance Institution, where doctors were available for the purpose.

As will be seen from the above table, 109 dentures were supplied, and the approximate cost was £150. In each case the patient's circumstances are investigated to ascertain whether a contribution should be demanded from her.

TODDLERS.

Area.	No. treated.	Parents attended	Temp. teeth extracted.	Fill- ings.	Silver Nitrate.	Advice.
Audley	10	9	20	3	5	—
Brierley Hill	13	13	23	—	16	—
Brownhills	31	34	48	—	12	5
Darlaston	10	10	13	—	—	—
Huntington	3	3	6	—	6	1
Kidsgrove	8	5	8	4	—	2
Leek	13	13	22	6	6	—
Lichfield	23	23	34	—	20	2
Quarry Bank	14	14	27	—	4	—
Sedgley	41	41	95	—	26	2
Stafford	5	5	5	—	—	—
Tamworth	7	7	11	—	—	—
Uttoxeter	19	19	43	—	—	1
Willenhall	32	30	73	—	12	1
Totals	229	226	428	13	107	14

Payment of Midwives' Fees.

During this year, 33 applications for compensation were received where cases were admitted to hospital for their confinements under the County Council scheme. After the necessary investigations, the amount of 10/- was paid in each instance.

In 22 cases where the patient could not afford to pay either the whole fee or an outstanding balance, midwives applied for the amounts due to them. The family circumstances of each patient were investigated, and, on applying our scale, it was found that the County Council could accept responsibility, in each instance the case being a necessitous one. The average fee for the district was allowed, and in 21 cases the maximum payment was made, half fees being granted in the other. The total expenditure during the year was £24 12s. 6d.

Health Visitors.

There was no change in the Health Visiting Staff during 1936, and at the end of the year there were 56 whole-time Health Visitors. These serve a population of approximately 360,643, two of them being Lecturers on Mothercraft. There are 40 part-time Health Visitors serving a population of approximately 71,497, mainly in the Rural Districts. These are District Nurses appointed by District Nursing Associations, who, before they took up their duties, received special instruction at Sedgley under the direction of the whole-time Health Visitors there. On reference to the table at the end of the Report the districts and populations served by both whole-time and part-time Health Visitors are set forth.

The visits paid by the Health Visitors during the year were as follows :—

To expectant mothers :—				
(1) First visits	.....	.....	.....	2,186
(2) Total visits	.....	.....	.....	6,428
To infants under 1 year :—				
(1) First visits	.....	.....	.....	6,926
(2) Total visits	.....	.....	.....	61,819
To children, 1—5 years :—				
Total visits	.....	.....	.....	106,658

Lectures.

Talks on mothercraft, which were instituted six years ago, have continued at the Infant Welfare Centres. During the year, talks were given at 429 sessions of 55 Centres in various parts of the Health Visiting Area. There were 11,395 attendances of mothers at the lectures, in addition to which, on a few occasions when groups could not be formed owing to small attendances, individual talks were given. The syllabus of these talks is comprehensive and covers ante-natal care, the feeding and care of infants, clothing of infants (including demonstrations in cutting out clothing, etc.), the care of the toddler, and hygiene of the home. From the interest displayed, and the questions asked at the end of these lectures, it is obvious that they fulfil the purpose for which they were started, viz., to educate the mother to a better understanding of herself and her child.

CHILDREN ACT, 1908.

In the Health Visiting Area the Health Visiting Inspectors, the whole-time Health Visitors, and the part-time Nurses, have been appointed as Infant Life Protection Visitors. The work of super-

vision and visitation of the children who are boarded out under Part I. of the above Act is carried out by these Visitors. A report on the preliminary examination is made by the Health Visitor after an application is received for registration of the foster-home, and monthly visits are subsequently paid by her. Regard is had to the general health and well-being of the children, and the suitability of the premises for their reception. The County Council also have power to limit the number of children under nine years of age in such a home.

The work carried out under this scheme during the year is shown in the following table :—

Number of children on Register at the end of December, 1936	64
Number of reports on visits to children received during the year 1936	617
Number of new cases during 1936, for which preliminary reports were sent in by Health Visitors	26
Number of foster parents on Register at end of 1936	64

VENEREAL DISEASES.

Under the County Council scheme for the treatment of Venereal Diseases, agreements have been made with the North Staffordshire Royal Infirmary, Stoke-on-Trent; the Staffordshire General Infirmary, Stafford; the Royal Hospital, Wolverhampton; the General Hospital, Walsall; the Guest Hospital, Dudley; and the Corbett Hospital, Amblecote, for the establishment of special clinics.

The following table shows the number of Staffordshire cases treated during the year, including cases from the County who attended clinics outside the area :—

STAFFORDSHIRE CASES TREATED FOR VENEREAL
DISEASES DURING THE YEAR 1936.

CLINIC	Syphilis.	Soft chancre.	Gonorrhoea.	Non-Venereal.	Total.	Attendances.
Birmingham General Hospital	7	—	19	39	65	2048
Bristol	—	—	1	—	1	5
Burton-on-Trent General Infirmary	8	1	21	8	38	899
Derby Royal Infirmary	2	1	2	1	6	231
Dudley Guest Hospital	14	—	38	27	79	4910
Greenwich Dreadnought Hospital	—	—	1	—	1	10
Stafford (Staffordshire General Infirmary)	12	—	25	28	65	2227
Stoke-on-Trent (North Staffordshire Royal Infirmary)	34	2	68	102	206	12507
Stoke-on-Trent (Municipal Clinic, Shelton)	10	1	39	29	79	3970
Stourbridge (Corbett Hospital)	3	—	6	1	10	1397
Walsall General Hospital	10	—	22	23	55	2069
Wolverhampton Royal Hospital	37	1	52	83	173	5403
Totals	137	6	294	341	778	35676

In comparing the total number of cases treated at the clinics with those for last year, it has been found that 778 patients were treated as against 787. It is gratifying that the attendances in proportion to the new cases still maintain a high ratio. These figures show that the patients are anxious to get the best out of the treatment.

At the end of 1936 there were 37 medical practitioners authorised to receive free supplies of Salvarsan or its substitutes for the treatment of Staffordshire cases in their practices; 7 doctors on the list availed themselves of this provision during the year.

WATER SUPPLIES.

There has been no repetition of the droughts experienced in the summers of 1933 and 1934, and consequently the problem of water supplies in rural areas has not been brought forcibly to the notice of the Rural District Councils. It is realised, however, that those districts which were found, in time of drought, to have deficient water supplies, must take steps to provide an efficient supply, as the possibility of another drought occurring in the near

future is by no means remote. The County Council are kept informed of the activities of local Councils with regard to water supplies by reason of the fact that applications are made to them for grants in aid of water supply schemes, and it has been found that only in one or two areas little or no progress has been made. The difficulty in many sparsely populated areas is that, with the long length of water main involved, the financial return on a water supply scheme is very small and the burden on the rates correspondingly high, whilst opposition frequently arises from ratepayers living in outlying portions of the district who would have no opportunity of sharing in the proposed scheme.

A list of the schemes for which grants were promised by the County Council during the year will be found on page 78.

In my Annual Report each year I have given details of improvements in the water supplies of Urban and Rural Districts, and of unsatisfactory conditions for which remedial measures were undertaken or were to be considered in the near future. For the most part this information has been extracted from the Annual Reports of District Medical Officers of Health, and below are given details for 1936 : —

BIDDULPH U.D.—The new reservoir at Biddulph Park, mentioned in my Report for 1935, was completed during the year.

In the Gillow Heath area the clearing of deposit in the old mains and it is hoped that in due course all the houses will have a piped supply.

RUGELEY U.D.—The Medical Officer of Health has mentioned in his Reports of previous years that there are about 100 houses owned by the Brereton Colliery Company which are supplied with water which is not up to the required standard of purity. These are going to be connected to the South Staffordshire Waterworks mains and it is hoped that in due course all the houses will have a piped supply.

STAFFORD M.B.—"Boring for a new source of water supply has been in operation at Shugborough since 1st May last. Progress of this work has been delayed from time to time due to various causes, but it is anticipated that the bore hole will be completed at an early date, when pumping tests to ascertain the yield will be carried out."

TAMWORTH M.B.—"The new reservoir at Hopwas was completed and opened on the 16th September, raising the pressure throughout the Borough to 15lbs. to the square inch, in addition to feeding the existing reservoir at Glascote Heath by gravitation. The total storage of the two reservoirs is now $2\frac{1}{2}$ million gallons, or three days supply during the summer months."

UTTOXETER U.D.—A scheme is in preparation by the Council's Consulting Engineers "to safeguard the urban water supply by the provision of additional mechanical pumping power."

WILLENHALL U.D.—The Medical Officer reports that there are still 14 houses obtaining their water supply from polluted wells, and also two other houses where there is no water at all and it has to be carried some distance.

CANNOCK R.D.—A water supply to those Parishes which have no piped supply has been under consideration, but owing to the high cost—proportionate to the number of premises to be served—no action was taken during the year.

"An extension of the Wolverhampton Corporation water mains has been made from Brewood through Kiddemore Green to Bishops Wood."

CHEADLE R.D.—"The water supply of the district as a whole has been adequate during the year, though certain of the villages in the more sparsely populated areas recently added to this district are still dependent on shallow wells, rainwater catchments and dew ponds. (A scheme has been presented to the Ministry of Health whereby these villages should get a supply of good and wholesome water)."

"Numerous extensions to existing mains have been carried out and the schemes for improving the supply to Consall Village and a portion of Kingsley have already been considered by the Ministry of Health."

Cheddleton.—The Council have not yet carried out the scheme to sink a new bore hole at Wallmyers.

Freehay, Hollington and Boundary.—This scheme, towards which the County Council gave a grant, was completed in August, 1935, and the water supply for this area has been satisfactory.

LEEK R.D.—In last year's report I gave in some detail the results of the survey made by the County Council's Consulting Engineer of the water supply in the various Parishes of Leek Rural District. It was apparent that in the Parishes of Alstonefield, Butterson, Grindon, Longnor, Longsdon, Horton and Wetton, serious shortage existed. The County Council made representations to the Rural District Council to deal with their problem but so far not one of these areas has an adequate water supply.

The householders at Hill Top, Brown Edge, made a representation to the Ministry of Health at the end of the year and an Inquiry was held in January, 1937, at which the County Council's case against the Rural Council was presented. As a result, the Minister of Health has directed the local Council to carry out the scheme to supply water in this area.

I understand that schemes for the supply of water to Alstonefield, Wetton and Longnor, have been presented to the Ministry, but as prolonged negotiations are taking place over the acquisition of the land for the necessary reservoirs, it is doubtful when a public piped supply will be available for the inhabitants of these Parishes. The recurrence of a drought such as we had in the summers of 1934 and 1935 might create a state of affairs prejudicial to the health of the inhabitants, and it is hoped that the Rural District Council will, at an early date, decide to provide a supply for the areas affected.

LICHFIELD R.D.—Schemes for extending the South Staffordshire Waterworks mains were completed in the following districts:—Fradley Village (Alrewas), Chorley, Colton, Kings Bromley, Mavesyn Ridware, Hilton (in the Parishes of Hammerwich and Shenstone) and Fisherwick. Further schemes for a supply of water to the Parishes of Clifton Campville, Thorpe Constantine, Harlaston, Edingale, Elford, Alrewas (Orgreave), Mavesyn Ridware (Blithbury), Whittington (Huddlesford and Williford), were nearing completion at the end of the year. Schemes for supplying Stonywell, Drayton Bassett, Alrewas Hayes, Sittles, Little Harlaston and Hogshill, were still under consideration at the end of the year. In all these schemes applications for grants from the County Council have been made.

NEWCASTLE R.D.—*Ashley Parish*.—Work on this scheme—to provide a piped supply in the Ashley district—was being carried out at the end of the year, and it is hoped that it will be completed at an early date.

Audley Parish.—"Good progress has been made in the scheme for the provision of the pumping station in connection with the two new bore holes at the waterworks, and by the end of the year work on the laying of over $2\frac{1}{2}$ miles of 10in. rising main from the works to the storage tanks at Alsagers Bank was well advanced." Further progress has been made with the Council's scheme for the extension of mains in various areas.

STAFFORD R.D.—I mentioned in my Report for 1935 that a scheme had been prepared by Consulting Engineers for the whole of the western portion of Stafford Rural District. This scheme

has been amended and amplified from time to time, and the Council are now awaiting the approval of the Ministry of Health, following a local Inquiry. It is hoped that it will be possible to begin work on this scheme at an early date. Many of the areas are badly in need of a supply of pure water.

A smaller scheme to cover the eastern portion of the Rural District has also been prepared and is awaiting the decision of the Council before presentation to the Ministry of Health.

STONE R.D.—The Medical Officer of Health reports that as a result of the sampling of various wells in Slindon, Fulford, Hilderstone, Milwich, Sandon and Moddershall, it has been found that the water supply is generally unsatisfactory and boiling of the water before drinking has been advised. The Council have at present under consideration a scheme for supplying Fulford and Hilderstone.

Eccleshall.—Work on the scheme mentioned in my Reports for the last two years was at long last commenced in August, 1936. When completed this will serve Eccleshall, Croxton and Chebsey, including Norton Bridge and Shallowford.

Yarnfield.—The Council has under consideration at the moment the question of a water supply scheme for this village.

UTTOXETER R.D.—The following schemes have now been completed :—Abbots Bromley, Admaston, Blithfield, Draycott-in-the-Clay, Kingstone, Leese Hill and Marchington. The supply is obtained from the South Staffordshire Waterworks Company.

Plans are in course of preparation to supply the Parish of Leigh, and the possibility of a scheme for Ellastone and Wootton is at present under consideration.

A piped supply from the Cheadle Rural District mains is now available at Croxden.

RIVERS POLLUTION PREVENTION.

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

In the accompanying Table the percentage of oxygen saturation in the streams at certain fixed points is shown for the last 10 years. 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. The greater part of this information is culled from the Annual Reports of the District Medical Officers of Health.

PERCENTAGE OF OXYGEN SATURATION.

LOCATION.	1927		1928		1929		1930		1931		1932		1933		1934		1935		1936	
	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.	July	Sept.
River Trent at Strongford Bridge	53.5	40.5	6.5	30.0	16.5	6.0	19.0	26.0	50.0	20.0	21.6	37.2	46	28	12	30	27	19.5	45.5	44
River Trent at Darlaston above Stone	41	34.5	17.0	14.0	26.0	19.0	28.5	37.0	39.5	56.5	1.3	36.4	27	20	13	55.5	15.5	24.5	51.5	51
River Trent at Aston, below Stone	44.5	43	29.5	50.5	16.5	25.0	13.5	34.0	36.5	59.0	6.6	28.2	21	15	Nil	25	8.7	14.5	46.5	48
River Trent at Great Haywood Mill, before receiving River Sow	33.5	50	14.0	41.5	13.5	31.5	33.5	39.0	50.5	56.5	36.5	37.8	32	10	17.5	30	12	31.5	35.5	53
River Trent at Great Haywood Mill, below Weir	48	60	46.5	51.0	49.5	56.5	60.0	62.0	57.5	60.5	43.2	45.4	48	18	26	42.5	21.5	33.5	41	57
River Sow at G.N. Railway Bridge	52	68.5	63.0	59.5	79	62	69.5	53.5	64.0	67.5	71.1	67.0	75	107	70	78	98	80	60.3	73.9
River Sow at Brick Bridge	36	67.5	88.5	67.5	66	52	54.5	59.5	58.0	58.0	87.9	63.5	66	66	81	70	86	59	67.8	79.1
River Penk at Radford	26.5	34.5	66.5	64.0	91	73	81.0	59.5	74.0	72.5	77.9	71.0	65	76	82.5	66.5	79	74	70.8	83.6
River Sow at St. Thomas	40	52.5	57.5	32.5	44	42	49.5	42.5	66.5	62.5	68.1	60.0	33	61	49.5	61.5	68	63.5	65.4	74.7
River Trent at Weetman's Bridge, near Little Haywood	27.5	51	35.0	48.0	38.5	29.5	51.5	49.0	51.0	57.5	39.0	44.5	36	36	29	36	17	39.5	44	51.5
River Trent at High Bridge, below Rugeley Sewage Works	35.5	51	45.5	42.0	36.5	29.0	57.5	53.0	57.5	67.5	47.1	54.5	43	45	69.5	55	50	58.5	52.5	55
River Trent at Wychnor Bridge, above confluence with River Tame	62	78.5	80.5	80.5	62	59.0	79.0	75.5	67.0	81.0	52.2	58.6	58	54	78.6	54	73	60.5	62	71
River Tame at Walsall Road Bridge, Perry Barr, before entering Birmingham	37	31.5	19.0	26.0	25.5	42.5	50.5	30.0	5.0	28.5	32.6	23.1	19	23	7.4	13.5	32	16.5	48.1	27.4
River Tame at Chetwynd Bridge, above confluence with River Trent	45	53	39.0	47.5	39	36.5	50.0	51.5	61.0	61.5	28.0	52.0	37	50	56	53.5	41	69.5	59	57
River Trent at Walton Bridge, below junction with River Tame	56.5	67	56.5	57.5	47	45.5	61.0	53.5	57.0	71.5	29.7	57.0	49	59	64	56	53	69.5	60.5	63
River Trent at Burton Bridge (North Boundary of Burton-on-Trent)	46.5	71.5	66.5	56.5	48	52.5	63.5	54.0	58.0	69.5	50.6	57.7	52	59	74	49	57	71	66	61
River Dove at Monks' Bridge, above confluence with River Trent	87.5	88.5	104	105	84	78.5	104.0	77.5	87.0	96.0	89.7	97.4	102	100	109	97.5	104	102	93	97
River Trent at Willington Bridge, below confluence with River Dove	62	78.5	88.5	73.5	76	62	84.0	65.0	67.5	78.5	57.0	71.7	73	68	73	60.0	75.5	76.5	69	77

RIVER MERSEY WATERSHED.

BIDDULPH U.D.—The comprehensive scheme mentioned in my Report for 1935 has been prepared by the Council's Engineer, and it is anticipated that it will be possible to commence sections of the work during 1937.

KIDSGROVE U.D.—*Talke Ward*.—The scheme for the treatment of sewage in this Ward, mentioned last year, has received the approval of the Ministry of Health. It is proposed to commence the work on this at an early date.

NEWCASTLE R.D.—“No progress has been made on the final part of the Council's scheme for the sewerage of Audley Parish, and conditions at Wereton, Wood Lane, Miles Green, Halmerend and Alsagers Bank, remains in the unsatisfactory state referred to in previous Reports.”

Madeley Parish.—A scheme for the reconstruction of the sewage works has been prepared by the Council's Consulting Engineer and is now under consideration.

RIVER TRENT WATERSHED.

CHEADLE R.D.—Various extensions of the existing sewers have taken place in the Parishes of Caverswall, Cheddleton, Ipstones, Waterhouses and Alton. I understand that plans of the sewerage scheme for Cheddleton are now in the hands of the Ministry of Health.

NEWCASTLE M.B.—The condition of the Lyme Brook, which previously was badly polluted by four Disposal Works belonging to the Newcastle Borough, has improved greatly since the sewage from the area served by these works has been diverted to the Stoke City Works at Strongford.

The Fowlea Brook, which is grossly polluted by trade wastes, receives the effluent from the Basford Sewage Works, and it is understood that a scheme is in course of preparation by which the sewage, instead of going to Basford, will go to the Stoke City Works at Burslem and Strongford. As the Fowlea Brook is of small size, and in time of drought its diluting capacity is very small, it is hoped that elimination of the effluent from the Basford works will result in some improvement in its condition.

LEEK R.D.—Work on the Baddeley Green and Norton-in-the-Moors sewage works is still in progress. It is hoped that it will be completed in the near future.

STONE R.D.—*Barlaston*.—A Ministry of Health Inquiry was held in July, 1936, to consider a scheme presented by the local Council for the disposal of sewage at Barlaston. The scheme has been approved by the Ministry in principle, but no loan has yet been sanctioned, as I understand the terms of agreement with the Stoke Corporation, to whose works at Strongford the sewage will go, have not yet been agreed.

STONE U.D.—The scheme mentioned in my Report for 1935 has not yet been presented to the Ministry, but it is hoped that this will be done at an early date as the pollution of the River Trent at this point is considerable.

UTTOXETER U.D.—The enlargement of the present works is proceeding, and it is hoped will be completed at an early date. The enlargement consists of the addition of eight percolating filters, of which six are already in operation, storm water tanks, a new effluent channel, and the necessary pumping plant. Considerable improvement has already been noted in the effluent discharged from these works.

WOLVERHAMPTON C.B.—During the year, extensions to the filter beds have been undertaken at a cost of £25,000.

SEISDON R.D.—The extension of the Codsall sewerage scheme was completed during 1936.

BROWNHILLS U.D.—*Norton Canes*.—Approval has been received from the Ministry of Health for the carrying out of the Norton Canes sewage scheme. It is hoped that work will be commenced in the autumn of 1937.

STAFFORD R.D.—*Walton and Milford*.—An alternative site for the proposed sewage works to serve this area has to be found, and negotiations are still taking place.

Great Haywood and Little Haywood.—The Medical Officer of Health reports unsatisfactory drainage conditions in these villages.

CANNOCK R.D.—The Medical Officer of Health again draws

attention to the advisability of a sewerage scheme for the houses at Cannock Road, Cheslyn Hay, and Wood Lane, Saredon.

The scheme for the drainage of the Four Ashes area has been completed and submitted to the Ministry of Health.

RUGELEY U.D.—The scheme for the sewerage of the Brereton area is at present awaiting the approval of the Ministry of Health. Meanwhile, the pollution of the stream from the Rugeley works continues. It is hoped that the District Council will take steps to improve the conditions obtaining at these works in the near future.

LICHFIELD CITY.—Pollution of the Full Brook has been taking place for some time past, and representations have been made by the County Council to the City Council as to the inadequacy of the present works.

LICHFIELD R.D.—*Armitage with Handsacre*.—The scheme mentioned in my Report for 1935 is in course of preparation.

TUTBURY R.D.—The Council have now made arrangements with Burton-on-Trent Corporation to dispose of the sewage from Branston, Outwoods and Stretton, at the Burton Works, and the laying of the necessary sewers will be proceeded with at an early date.

RIVER TAME WATERSHED.

OLDBURY M.B. (WORCS.).—I mentioned in my Report for last year that the first instalment of the new sewage works had been completed. The second instalment, comprising six bacteria beds, sewage pumping station and humus tanks, is nearing completion.

BROWNHILLS U.D.—*Shelfield, High Heath*.—A scheme for laying a valley sewer to the new works at Goscote is in progress, and it is anticipated that it will be completed by the middle of 1937.

Clayhanger Sewage Works.—Two new settlement tanks have been constructed at the main sewage works, Brownhills, and further improvements are now being carried out.

ALDRIDGE U.D.—As mentioned in my Report for 1935, the Urban District Council became a Constituent Member of the Birmingham Tame and Rea Joint Sewage Board, and work on the laying of sewers to connect the Great Barr area to the Birmingham works is at present in progress.

WALSALL C.B.—The Goscote Joint Sewage Works, to which extensions have been made since my Report in 1935, are now completed.

A scheme for the drainage of the south-eastern portion of the Borough, comprising about 1,800 acres, is in course of preparation.

Bescot Sewage Works.—The extension of these works, at an estimated cost of £51,000, is now in hand, and it is expected to be completed early in 1938.

WILLENHALL U.D.—The new scheme for the sewerage of the Short Heath area, by which all the sewage will be brought to the disposal works at Willenhall, was put before the Ministry early in 1937, and I understand that approval, subject to certain conditions as to the provision of humus tanks, has been given.

TIPTON U.D.—The effluent from these works has not always been satisfactory, as a considerable amount of humus is at times discharged into the stream, owing to the fact that no humus tanks are provided. As these works deal with a considerable amount of gas liquor from the town's works, and also from an independent gas-producing works, it is felt that some extensions will be necessary, and the County Council have been in communication with the Urban District Council with this in view.

SEDGLEY U.D.—No extensions have yet taken place at the Upper Gornal works. It is evident that at some time in the near future the Urban District Council will be forced to consider this matter seriously.

RIVER SEVERN WATERSHED.

SEISDON R.D.—*Kinver.*—A scheme for improving and extending the Kinver sewage works is being prepared by the Council's engineers. These works will serve Kinver, Stourton, the Stewponey and New Wood areas.

Wombourne.—The construction of a sewage disposal works for the Parish of Wombourne was commenced towards the latter part of 1936.

Wrottesley Detached.—Proposals are on foot to eliminate the sewage disposal works at Autherley Lane, the sewage at present dealt with at these works to be diverted to the Tettenhall Sewage Works at Trescott.

WOLVERHAMPTON C.B.—“The area draining to the Merry Hill Works is being developed very rapidly for residential purposes ; as a result, a scheme is in preparation for carrying out the necessary extensions at an estimated cost of £12,000.”

BRIERLEY HILL U.D.—The scheme mentioned in my Report for last year has been submitted to the Ministry, and it is hoped that it will be possible to start work on this at an early date.

SEDGLEY U.D.—The Council have still under consideration the question of the extension of the Gospel End sewage works. It is evident from the condition of the effluent from these works and from the Lower Gornal works, that owing to the rapid housing developments in these areas, the Council will have to come to a decision as to these extensions at an early date.

MINISTRY OF HEALTH INQUIRIES.

The following Inquiries were held by the Ministry of Health during the year 1936 into applications for loans in respect of schemes of sewerage and sewage disposal, and water supply :—

<i>District.</i>	<i>Date of Inquiry.</i>	<i>Amount of Loan.</i>	<i>Purpose.</i>
Walsall C.B.	..... 1.1.36	£59,593	Sewerage £8,593 Sewage Disposal £51,000 <hr/> £59,593
Wolverhampton C.B.	1.1.36	£25,000	Sewage Disposal.
Stone R.D. (Barlaston)	..... 7.7.36	£7,700	Sewerage.
Tutbury R.D.	..... 8.7.36	£68,500	Sewerage and Sew-Disposal.
Stone R.D. (Chebsey) 13.8.36	£6,630 amended to £7,200	Water supply.
Brownhills U.D. (Norton Canes)	6.10.36	£37,000	Sewerage and Sew-age Disposal.

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Aldridge U.D.	28.10.36	£3,779	For the issue of Provisional Order as Constituent Authority of Birmingham Tame and Rea District Drainage Board.
Cheadle R.D. (Cheddleton, Caverswall, Consall, Dilhorne, Kingsley and Cheadle)	.....	3.11.36	£2,100	Water supply.
Stoke-on-Trent C.B.	.....	31.12.36	£41,140	Sewage Disposal.

CONTRIBUTIONS TO DISTRICT COUNCILS FOR
WATER AND SEWAGE DISPOSAL SCHEMES.

In the Report for 1930 the principles governing contributions from the County Council towards the cost of these schemes were set out in full. To summarise them briefly: if, after allowance has been made for the cost of a water or sewerage scheme, the rate which would have to be levied on the parish or Urban District concerned is more than the average rate for the rural or urban districts in the County as a whole, then the County Council agree to make a contribution towards the scheme, subject, in the case of a Rural District, to the District Council making a contribution towards the parish expenses of a sum at least equal to that of the County Council's grant. Details of the scheme must be submitted beforehand, and the necessity and suitability of the scheme must be approved by the County Medical Officer.

During 1936, the County Council have considered applications in respect of 33 new schemes, 5 for sewerage and sewage disposal, and 28 for water supplies. In the under-mentioned cases contributions were promised:—

<i>Sanitary District.</i>	<i>Scheme.</i>
Sewerage and Sewage Disposal:	
Rugeley U.D.	Brereton.
Wednesbury M.B.	Valley Sewer.
*Leek R.D.	Norton-in-the-Moors.
Seisdon R.D.	Kinver.

*This contribution will not be made as the District Council are not prepared to contribute from their General Rate Fund.

Water Supplies :

Cannock R.D.	.....	.....	Brewood (Bishop's Wood Extension).
Cheadle R.D.	.....	.....	*Blore-with-Swinscoe and Waterhouses.
do.	.....	.....	Consall and Kingsley (Kingsley Moor).
Lichfield R.D.	.....	.....	Alrewas (Fradley and Sittles Farm).
do.	.....	.....	†Alrewas (Orgreave).
do.	.....	.....	Clifton Campville (Extension).
do.	.....	.....	Clifton Campville, Edingale, Elford, Harlaston and Thorpe Constantine.
do.	.....	.....	Curborough and Elmhurst.
do.	.....	.....	Drayton Bassett.
do.	.....	.....	Edingale (Croxall).
do.	.....	.....	Harlaston.
do.	.....	.....	Kings Bromley (Extensions).
do.	.....	.....	Longdon (Stonywell).
do.	.....	.....	Mavesyn Ridware (Extension).
do.	.....	.....	Whittington.
Newcastle R.D.	.....	.....	Audley Rural.
do.	.....	.....	Balterley.
Stafford R.D.	.....	.....	Eastern Area.
do.	.....	.....	Western Area.
Stone R.D.	.....	.....	Chebsey.
Uttoxeter R.D.	.....	.....	Blithfield and Kingstone.
do.	.....	.....	Draycott-in-the-Clay and Marchington.
do.	.....	.....	Ellastone.
do.	.....	.....	Kingstone (Gratwich).
do.	.....	.....	Leigh.
do.	.....	.....	Wootton.

*Contribution promised in respect of Blore-with Swinscoe Section only.

†Contribution revised later in the year as the final cost was less than the estimate.

The three remaining applications, one in respect of a sewerage scheme and two in connection with water supplies, were not acceded to.

In addition to the above, during 1936 further consideration was given to applications affecting grants already decided upon in previous years, as follows : —

Sewerage and Sewage Disposal : —

Kidsgrove U.D.—Newchapel.—A contribution had been promised provisionally on estimated figures, but the final application was refused on account of the improved financial position of the area and a reduction in the estimated annual costs.

*Lichfield R.D.—Alrewas.

*Lichfield R.D.—Burntwood Mental Hospital.

*Seisdon R.D.—Codsall.

Tutbury R.D.—Branstone, etc.—On further consideration the matter was deferred on the question of whether the sewage should be treated at the Burton Corporation Works or at new works to be constructed by the Rural District Council.

*In each case the original contribution was increased in consequence of the capital cost being under-estimated.

Water Supplies : —

*Cannock R.D.—Penkridge (Longridge and Levedale).

*Lichfield R.D.—Hamstall Ridware.

†Newcastle R.D.—Ashley, Mucclestone and Tyrley.

†Newcastle R.D.—Chapel and Hill Chorlton and Maer (Amended Scheme).

*Seisdon R.D.—Pattingham.

Uttoxeter R.D.—Abbots Bromley.—In this case an increased contribution for a period of ten years was substituted for the original contribution for thirty years owing to the Parish being included in the area of supply of the South Staffs. Waterworks Company and a supply being obtained subject to a minimum annual payment under guarantee for a period of ten years.

*A revision was made as the final cost was less than the estimate.

†The total contribution remained unchanged but was re-allocated over the respective parishes.

I give below particulars of the schemes in respect of which contributions were actually made during 1936, together with the financial years concerned :—

<i>Sanitary District.</i>	<i>Scheme.</i>	<i>Financial Year.</i>
Sewerage and Sewage Disposal :		
Tettenhall U.D.	Tettenhall	1936-37.
Lichfield R.D.	Alrewas	1932-33 ; 1933-34 ; 1934-35.
do.	Burntwood	1934-35.
do.	Burntwood Mental Hospital	First instalment on account of a lump sum con- tribution.
do.	Hammerwich	1934-35
do.	Little Aston and Lynn and Stonnall	1934-35
Newcastle R.D.	Audley	1935-36
Water Supplies :		
Tutbury R.D.	Outwoods	1935-36
Uttoxeter R.D.	Great Gate (Parish of Croxden).	Lump sum con- tribution.

RURAL HOUSING.

The survey of working-class property carried out by Local Authorities under the Housing Act, 1935, has been completed and most Councils are now in a position to judge what their problem is as regards overcrowding, and to plan their housing schemes accordingly. Such development as has taken place in housing during recent years has been due, mainly, to private enterprise, so that at the present time there is a great need for houses for the lower-paid workers. Although most districts have not, as yet, dealt with this overcrowding problem, as for the most part their housing schemes have only been sufficient to deal with the population in the most urgent of their Slum Clearance Areas, it is hoped that, as soon as possible, they will take steps to deal with such of their population as

are living in undesirable overcrowded conditions. Bound up with this problem is the question of rent, for, owing to the increased cost of materials and labour, housing costs have risen, so that unless some grant is made from the general rates the economic rents charged will be too high for the people whom the houses are designed to serve.

HOUSING (RURAL WORKERS) ACTS.

Under these Acts contributions are given by the County Council for the re-conditioning of old houses in rural areas; and for the conversion into dwellings of buildings not previously used for that purpose. Applications for grants must come from the owner of the property concerned. During the year, 19 applications were received, one being refused, and in the remaining instances grants were either made or promised, as follows : —

<i>Rural District.</i>	<i>Parish.</i>	<i>No. of Houses.</i>	<i>Amount of Grant</i> £
Cannock	Lapley	1	100
	do.	1	100
Lichfield	Kings Bromley	1	100
	Swinfen and Packington	1	40
Newcastle	Audley	1	100
	Betley	1	100
	Tyrley	1	100
	do.	1	100
	do.	2	80
Seisdon	Kinver	1	100
	Trysull and Seisdon	2	200
Stafford	Bradley	1	100
	Brocton	1	100
	Castle Church	2	200
	Gnosall	1	100
	Ranton	1	100
Stone	Eccleshall	1	100
Uttoxeter	Uttoxeter Rural	1	90

**INSPECTION AND SUPERVISION OF FOOD.
MILK SUPPLY.****MILK SAMPLING.**

In the following tables the numbers of samples of ordinary and specially designated milks taken during the year by the Official Sampling Officers of the County Council are shown, together with the results of the bacteriological and biological tests carried out in the County Laboratory. In the table of ordinary milk the numbers of samples taken in the various Sanitary Districts of the County are indicated.

ORDINARY MILK SAMPLES.

1ST JANUARY TO 31ST DECEMBER, 1936.

SANITARY AUTHORITY.	No. of Samples Submitted.	Result of Examination.		T.B.
		Cleanliness.		
		Satisfactory.	Unsatisfactory.	
URBAN				
Aldridge	47	38	9	6
Amblecote	10	10	.....	.....
Biddulph	55	49	6	2
Bilston	16	15	1	2
Brierley Hill	45	43	2	6
Brownhills	52	39	13	6
Cannock	58	46	12	4
Coseley	15	14	1	1
Darlaston	18	16	2	.....
Kidsgrove	66	56	10	6
Leek	53	42	11	3
Lichfield	37	30	7	.....
Rowley Regis	28	23	5	5
Rugeley	34	28	6	.....
Sedgley	30	25	5	.....
Stafford	60	50	10	7
Stone	26	23	3	4
Tamworth	30	27	3	3
Tettenhall	29	23	6	2
Tipton	9	7	2	.....
Uttoxeter	29	26	3	3
Wednesbury	9	9	.....	1
Wednesfield	21	15	6	4
Willenhall	26	21	5	2
RURAL.				
Cannock	85	64	21	3
Cheadle	155	129	26	9
Leek	53	45	8	4
Lichfield	83	75	8	8
Newcastle	73	64	9	4
Seisdon	88	72	16	9
Stafford	32	31	1	—
Stone	27	25	2	3
Tutbury	30	27	3	3
Uttoxeter	21	19	2	1
Totals	1450	1226	224	111

Certain samples included in the preceding table were unsatisfactory from a cleanliness standpoint and also contained tubercle bacilli. The total number of unsatisfactory samples was 318, and the results of the tests were as follows :—

Due to Coliform Bacilli	126
Due to Count	49
Due to Coliform Bacilli and Count	32
Due to Coliform Bacilli and presence of tubercle bacilli	9
Due to Count and presence of tubercle bacilli	5
Due to Coliform Bacilli, Count and presence of tubercle bacilli	3
Tubercle Bacilli only found	94

(Total samples in which Tubercle Bacilli were found, 111).

SPECIALLY DESIGNATED MILK

1st January to 31st December, 1936.

	Total	Satisfactory	Unsatisfactory.			
			Due to Coliform Bacilli	Due to Count	Due to Col. Bac & Count	Due to T.B.
{ "Certified"	42	31	7	1	3	.....
{ "Grade A (T.T.)"	93	87	6	.....	.....	.....
{ "Grade A. Pasteurised"	9	5	3	1	.....	.....
{ "Grade A"	72	59	4	4	3	2
{ "Tuberculin Tested"	156	132	17	1	4	2
{ "Tuberculin Tested Pasteurised"	2	2	.....	.....	.....	.....
{ "Accredited"	83	54	16	4	7	2
{ "Pasteurised"	192	169	.....	20	.....	3
Totals	649	539	53	31	17	9

In addition, two samples of sterilized milk were taken, which on examination, were found to be satisfactory.

The Milk (Special Designations) Order, 1936, came into operation on the 1st June, 1936, when the designations of the first group of milks shown in the above table were replaced by those included in the second group.

(1) CLEANLINESS.

Ordinary Milk.—Of the 1,450 samples mentioned in the appropriate table, which were all bacteriologically examined, 1,226 were found to conform to a certain standard of cleanliness, the remaining 224 failing to do so. Of the unsatisfactory samples, 209 were produced within the County and 15 outside. The percentage of samples reported clean was 84.6 compared with 86.8 last year.

Action regarding the unsatisfactory samples is taken by the Veterinary Department, and, as in previous years, the names of the producers were reported to the County Farm Institute, the Assistant Director for Agricultural Education communicating with the farmers concerned to offer every assistance. In accordance with the usual practice, if no improvement in the cleanliness of the milk resulted, the District Council in whose area the premises are situated was communicated with so that the necessary steps could be taken under the Milk and Dairies Order, 1926.

Specially Designated Milk.—On referring to the table it will be seen that of the 649 samples submitted for bacteriological test 101 were unsatisfactory from a cleanliness standpoint, viz :—15.6 per cent.

As regards the unsatisfactory samples other than those of pasteurised milks, 24 were produced in the County and 53 outside. The sources of production of the 24 unsatisfactory samples of "Grade A Pasteurised" and "Pasteurised" milks were not known, but only 5 were treated at premises within the County, the remaining 19 coming from outside.

(2) TUBERCULOSIS.

All samples in which tubercle bacilli were found during 1936 were referred to the Veterinary Department, and are included in the figures appearing in the following section of the Report.

VETERINARY DEPARTMENT.

Again this year, Mr. F. A. Davidson, the Chief Veterinary Officer, has prepared an interesting and instructive account of the work of the Veterinary Department, which includes all duties under the Milk and Dairies Acts and Orders, the Tuberculosis Order, 1925, and the Milk in Schools Scheme.

This is the second report of a complete year's activities and reads as follows :—

The returns for this year show steady progress in the improvement of milk supplies within the County, the most noteworthy point being the increase in the "Accredited" herds. This development, owing to limitations of staff, affected to a certain extent the routine inspection of herds. Foot and Mouth Disease, which infected districts in the north and south-east of the County, also interfered with this work, for immediately all herd inspections within the scheduled area were cancelled, one Assistant Veterinary Officer being supplied with rubber clothing, etc., and detailed to undertake the urgent work only.

STAFF AND VETERINARY DISTRICTS.

The number of Assistant Veterinary Officers was increased from seven to eight from the 1st April. This was necessitated owing to the fact that seven hundred to one thousand dairies had been found which were not included in the District Councils' Registers when the scheme was organized, and to additional work consequent upon the Milk (Special Designations) Order, 1936, which came into operation on the 1st June. Owing to the increase in the number of "Accredited" herds, the County Sampling Officers were transferred to the control of the Veterinary Department in October, the staff now being a Chief Veterinary Officer, eight Assistant Veterinary Officers, two Sampling Officers and four Clerks. There was one change in the staff during the year, following the appointment of an Assistant Veterinary Officer to another County.

TABLE I.
REGISTER OF DAIRY PREMISES.

	No. of herds.	Total No. of cows.	Av. No. of cows per herd.	No. of calving heifers (approx.)	Nos. of Other Bovines.	
					Dairy Stock (approx)	Feeding Stock (approx)
MUNICIPAL BOROUGHES :						
Bilston	3	44	14.7	1	3	10
Newcastle	51	885	17.4	61	241	5
Rowley Regis	17	158	9.3	—	10	—
Stafford	27	670	24.8	38	209	20
Tamworth	10	117	11.7	13	107	—
Wednesbury	1	4	4.0	—	—	—
URBAN DISTRICTS :						
Aldridge	32	408	12.8	40	168	53
Amblecote	3	37	12.3	1	23	—
Biddulph	193	1,781	9.2	138	672	5
Brierley Hill	24	227	9.5	8	43	—
Brownhills	34	232	6.8	27	151	2
Cannock	27	319	11.8	11	112	—
Coseley	13	128	9.8	12	35	—
Darlaston	7	50	7.1	3	18	—
Kidsgrove	54	612	11.3	33	209	22
Leek	40	790	19.8	66	206	—
Lichfield	13	161	12.4	45	87	13
Rugeley	23	319	13.9	51	241	12
Sedgley	24	353	14.7	40	96	6
Stone	9	276	30.7	35	128	8
Tettenhall	16	267	16.7	10	75	—
Tipton	3	24	8.0	—	—	—
Uttoxeter	41	780	19.0	71	261	—
Wednesfield	19	175	9.2	12	39	13
Willenhall	8	69	8.6	12	30	3
RURAL DISTRICTS :						
Cannock	301	6,360	21.1	1,100	3,066	570
Cheadle	871	13,094	15.0	1,285	5,330	195
Leek	982	12,731	13.0	1,765	6,634	65
Lichfield	441	8,812	20.0	1,402	5,953	793
Newcastle	353	7,654	21.7	866	3,046	85
Seisdon	143	2,577	18.0	324	1,294	85
Stafford	592	13,728	23.2	1,753	7,574	751
Stone	538	11,217	20.8	1,167	5,423	831
Tutbury	238	5,483	23.0	721	2,571	131
Uttoxeter	639	12,912	20.2	1,854	5,422	96
	5,790	103,454	17.9	12,965	49,477	3,774
Small producers retailing at door etc. (no milk sold wholesale). approx.	200	600				
Grand Totals	5,990	104,054				

The preceding table, which is now a fairly accurate record of the dairy herds in the County, shows an increase of 160 herds and 2,966 cows as compared with 1935. The increase in herds is due mainly to further dairies being discovered, rather than to new producers.

As will be seen, the table has been extended to include all other classes of stock on registered premises. These latter figures have always been furnished in the Veterinary Officer's reports for use in connection with any future proposals for the eradication of tuberculosis, but, owing to additional administrative work in connection with the "Accredited" Scheme, it was not found possible to collate them last year.

The "Adjusted Figures" section in Table II is the record of the completed inspections.

For statistical purposes, a herd inspection is only considered complete when, in addition to the routine clinical examinations, all further work that may be entailed, such as bacteriological and biological examinations and post-mortem work, is finished.

The figures given in the Table in respect of cows slaughtered under the Tuberculosis Order, 1925, refer only to animals reported by the County Veterinary Officers at the time of routine herd inspections, the full figure of all animals slaughtered being given later in the report. Animals reported to other Local Authorities were those discovered at routine inspections in the Municipal Boroughs of Newcastle, Stafford and Wednesbury, which are separate Authorities under the Diseases of Animals Acts.

As stated previously, the number of routine inspections had to be curtailed for various reasons, but in spite of this they increased by nine hundred and sixty-three as compared with 1935. Table V.A. shows that there is a marked decrease in the number of cases of Tuberculous Emaciation, and the fact that the total number of animals slaughtered has increased proves that now the preliminary organization is complete the Veterinary Officers are applying more intensive methods in the diagnosis of suspected cases. The practice of group bulk sampling after clinical examination has been extended in special instances during the year, according to the supply of guinea pigs, and with increased accommodation for these animals early in 1937 it is hoped to extend the system immediately to cover approximately 30 to 40 per cent. of the herds in the County. Group bulk sampling is the most practical means of searching out the pre-clinical cases of Tuberculous Mastitis, and, briefly, the method is to take, immediately after examination, a group sample, or samples, including every milking cow which is not sampled individually, or dealt with under the Tuberculosis Order, 1925. These samples are centrifuged separately, the sediment from the bulks of two or more herds, according to the size and situation, being mixed and injected into one guinea-pig.

The figures so far available in this County show that approximately 21 per cent. of tuberculous udders are not diagnosed by a clinical examination, this figure being practically identical with those of one or two other Midland Counties.

The reports of the Veterinary Officers now often state:— "marked improvement in the health and condition of this herd since first inspections" or "proportion of aged doubtful cows reduced, replacement by heifers," etc.

MILK AND DAIRIES (CONSOLIDATION) ACT, 1915. SECTION IV.

Section IV of this Act provides that if a sample of milk offered for sale within the County Area, whether or not produced therein, is found to contain tubercle bacilli, notice must be given to the County Medical Officer of Health, whose duty it is to cause the cattle in the dairy concerned to be inspected, and to make such other investigations as may be necessary.

On receiving the positive result of a sample produced within the County, the Chief Veterinary Officer arranges for a veterinary examination of the suspected herd. After the removal of any clinical cases of tuberculosis, single or group samples of milk are taken from the remainder of the herd, thus ensuring that the source of the contamination is removed.

In the case of milk produced outside, but sold in the County area, which is found to contain tubercle bacilli, a representation under this Section of the Act is made to the Medical Officer of Health of the outside Authority concerned, who then takes the necessary action as regards the herd. Similarly, we receive representations from outside Authorities in respect of milk produced in Staffordshire.

Two hundred and thirty-seven complaints of the presence of tubercle bacilli in milk produced in Staffordshire were received during the year, as compared with two hundred and thirty-one during 1935.

The sources of the complaints were as follows :—

Staffs. C.C.—Samples taken by Official Sampling Officers	94
Staffs. C.C.—Samples taken by Veterinary Staff	22
Samples taken by Sanitary Inspectors within the County	6
Samples taken in areas outside the County and reported to Staffs. under Section IV.—Milk and Dairies (Consolidation) Act, 1915	115
Total	237

The ninety-four samples mentioned above, taken by the Official Sampling Officers during 1936, were found to contain tubercle bacilli, and investigations under Section IV of the Milk and Dairies (Consolidation) Act, 1915, were carried out at eighty-six farms. These were consequent on eighty-four complaints, in two instances the samples containing milk from two farms. As regards the remaining ten complaints, the infection at the farms had been dealt with before the positive reports were received.

Thirty-six samples taken by the Official Sampling Officers and the County Veterinary Officers, which were produced in areas outside Staffordshire but sent into the County for sale, were found to contain tubercle bacilli, and representations under Section IV of the Act were made to the appropriate Authorities. These cases were investigated, in fourteen instances with negative results. In twenty-two cases tuberculosis was found and twenty-eight animals were slaughtered, eleven being an advanced state, six were not advanced and information was not supplied as to the state of the disease in the remaining eleven. At two of the farms at which negative results were obtained, there was definite evidence that a suspicious cow had been removed from the herd and sold for slaughter prior to the receipt of the representation.

The following Table gives details of the investigations carried out by the Veterinary Staff of the County and refers only to inspections under Section IV of the Milk and Dairies (Consolidation) Act, 1915 : —

As in the case of routine inspections, the "Adjusted Figures" section in the above table is the record of completed inspections.

Table III.B. below shows that in eighty-four "Section IV" investigations, no cows were slaughtered following the receipt of the notifications. Control bulk samples from these herds were all negative, but it will be observed that, except in seventeen herds, a possible source of infection was traced.

TABLE III B.

"SECTION IV" REPORTS, 1936.

No. of herds where no cows slaughtered.	NUMBER OF CASES WHERE :—					
	No satisfactory explanation obtained.	History of doubtful cows sold.	History of milk purchased.	Cow(s) already slaughtered as a result of routine inspection.	Cow Bio + but sold or died before result.	Cow found at another farm (mixed milk).
84	17	26	7	24	2	8

Nine reports of the presence of tubercle bacilli were also received in respect of bulked milks from two or more farms. The number of herds contributing to these mixed supplies varied from 2 to 300 in each report, the total for the nine reports being approximately 477. It is obvious that such notifications can only be effectively dealt with by Local Authorities with an organized system of herd inspection supported by adequate Laboratory facilities, as is provided in Staffordshire. The Official Sampling Officers in this County make detailed inquiries when sampling in the street, at depôts, etc., as to all milk purchased that day, and in six cases the offending cows were found at farms other than those at which the milk was supposed to have been produced.

DISEASES OF DAIRY HERDS.

The general condition of the herds was improved with better grazing, which drought had seriously affected during the previous two years. Unfortunately, however, the hay crop generally was ruined. By the end of the year the result of this became evident, and, as predicted, the full effects were felt between February and May, 1937. It is evident that in spite of the improvements in rationing, a good hay crop is still one of the main essentials in keeping stock fit during the winter months. The main effect of the deficiency

in quality was lack of tone in cows, especially after calving, resulting in debility, milk fever, retained placenta, miliary tuberculosis, etc. All classes of mineral deficiencies were evident, and it would appear that many cows in the County are existing near the borderline in this respect. In addition to calcium deficiency after calving, there was abundant evidence of magnesium, and possibly phosphorous deficiency in "lying off calvers." Farmers would be well advised to make use of the services of the Staff of the County Farm Institute in estimating the mineral requirements of their farms, both as regards the ultimate improvement of their stock and the economic application necessary to individual fields. Where such deficiencies were noted at the time of herd inspections, advice was given in respect of improved rationing and addition of various mineral mixtures. Based on past experience, reliable meat and bone meal was found very useful, especially for dairy cows. Advice was also given with regard to the hygiene, housing and feeding, of young stock.

In last year's report, particular attention was drawn to the excessive losses from mastitis, abortion, Johnè's disease and sterility, and it is unfortunate to record that there was no material improvement during 1936. "Summer" mastitis in dairy stock was very prevalent during a few weeks of the summer, and appears to coincide with weather conditions suitable to the breeding of "flies."

Existing labour conditions have led to a marked increase in the number of milking machines, and, as a result, there have been extensive outbreaks of streptococcal mastitis. I would point out, however, that this is entirely due to the negligent handling of plants, as producers who use them carefully have no greater incidence of udder trouble in their herds than exists in those with average hand milking. The fore milk should be drawn from every animal before application of the pulsators, and a careful examination made for even the slightest curdling of the milk. Where the latter is found, all quarters of the cow's udder should be milked last by hand, with the necessary hygienic precautions. All parts of the milking machine should be sterilised by boiling water or steam after each milking, and it is advisable to swill the pulsators, after removal from each cow, in a clean, weak, antiseptic solution which will not taint the milk. Although, so far, there is no specific cure for mastitis, prompt treatment immediately the first symptoms are observed will lead to a considerable reduction in loss, and owners should consult their private Veterinary Surgeons at once to decide which particular form of treatment is likely to be the most successful.

More interest is being taken in the eradication of Contagious Bovine Abortion, but it is unfortunate to have to report an extensive outbreak in a group of parishes, which might be considered one of the few breeding areas of the County, where there was very little

previous evidence of the disease. The rapidity with which the outbreak spread points to sewage contamination of water supplies, though in this area there is the unsatisfactory position of the grazings of groups of farms being broken up, this leading to extensive contact between herds. As stated earlier in the report, records have been completed of the maintenance of herds by breeding and purchase, with a view to formulating a scheme during 1937 for the eradication of Tuberculosis, but the success of this will be affected considerably by the extent of Bovine Abortion in any area or herd. Therefore, this disease must be tackled previous to, or in conjunction with, any Scheme against tuberculosis.

There is a tendency on the part of producers to estimate the loss from abortion in terms of viable calves and to disregard reduced milk production, sterility, etc., but our observations show that the majority of cases of bad feet, enlarged joints and arthritis, are found in herds infected with Bovine Abortion. During the year, samples of blood from horses with fistulous withers and poll evil have also been submitted to the County Laboratory, a large percentage being positive to the agglutination test.

"Johnè's" disease has not been quite so prevalent during 1936, which is no doubt due to the dilution of infection in drinking-pits, streams, etc., owing to the increased rainfall, but no permanent improvement will be effected without satisfactory water supplies and the proper treatment of drainage, the latter being disposed of within the boundaries of each farm.

Sterility is still a very serious economic loss, but better hygiene in and around the cowsheds has led to improvement with regard to udder and feet complaints, etc.

MILK (SPECIAL DESIGNATIONS) ORDER, 1936.

The Milk (Special Designations) Order, 1923, was revoked and replaced by the Milk (Special Designations) Order, 1936, on the 1st June, 1936. The main changes in the new Order were :—

1. Grades of specially designated milk to be :—
 - (a) "Tuberculin Tested,"
 - (b) "Accredited,"
 - (c) "Pasteurised,"

with additional permissible qualifications as regards "Tuberculin Tested" milk pasteurised and "Tuberculin Tested" milk bottled on the farm (Certified).

2. On and after 1st January, 1937, the examination of "Tuberculin Tested" and "Accredited" milks for cleanliness to be conducted by the Methylene Blue Reduction Test, instead of by

Bacterial Count and the presence of Coliform organisms, the latter now being optional. Both grades of Pasteurised milk are to be examined by Bacterial Count.

3. It is permissible for "Accredited" producers to Tuberculin Test their herds without disposing of re-actors, but known re-actors must not be added to the herd.

4. On and after 1st June, 1936, all new licenses for the production of "Tuberculin Tested" milk to be issued and controlled by the County and County Borough Councils, the Ministry of Health retaining control of herds licensed previous to that date until 31st December, 1936.

"ACCREDITED" (LATE "GRADE A").

On the 31st December, 1935, there were 1,633 farmers licensed to produce "Accredited" (late "Grade A") milk, and this had increased to 2,454 by 31st December, 1936. At present it is difficult to assess the full value of the Scheme, but it gives much more control over cows suffering from diseases other than clinical tuberculosis, and full use has been made of these powers in Staffordshire, with good results. During the year, 5,177 samples of milk were taken for examination for cleanliness: 3,829, or 74 per cent., complied with the required standards.

Each producer has his milk sampled and examined quarterly, and if the result is unsatisfactory, a report and notes on clean milk production are sent. As soon as possible afterwards, a Veterinary Officer visits at milking time, gives advice on any faults he finds and takes samples at various stages of production in order to check sterilisation of the utensils. This latter point is important, as it is impossible to judge this by any ordinary examination, which is the weak point of any system of score card assessment. In view of the impending change in the examination of samples, Dr. Menton, the County Bacteriologist, arranged to examine all "divided" samples by Bacterial Count, the presence of Coliform Organisms and the Methylene Blue Reduction Test. This entailed much extra work, but the Staffs of the Laboratory and the Veterinary Department gained much valuable experience in the comparative value of these tests before 1st January, 1937, when the change was made.

Summary of Results on Examination of "Divided" Samples—First Quarter, 1937.

These were taken after a "quarterly Accredited" sample was reported as having failed to pass the Reductase Test.

Samples taken from	No. of samples taken.	Bacterial count.					Reductase.		Bacterial count.			% passed Re-ductase test.
		Under 10,000.	10,000 to 30,000.	30,000 to 100,000.	100,000 to 200,000.	Over 200,000.	Passed.	Failed.	% under 30,000.	% over 100,000.	% over 200,000.	
Buckets (uncooled)	192	89	47	27	11	18	143	17	70.83	15.10	9.37	89.37
Above cooler (uncooled)	39	15	7	3	5	9	23	6	56.41	35.89	23.07	79.31
Below cooler	155	51	26	32	13	33	97	22	49.67	29.67	21.22	80.67
Churns	225	54	46	45	22	58	150	35	44.44	31.11	25.77	81.08

Coliform Organisms.

Samples taken from	No. of samples taken.	Absent from 1 c.c.	Present in 1 c.c.	Present in 1-100th c.c. (1 tube).	Present in 1-100th c.c. (2 or 3 tubes).	% Coli absent from 1 c.c.	% Coli present in 1-100th c.c. (2 or 3 tubes).
Buckets (uncooled)	190	155	6	16	13	81.57	6.84
Above cooler (uncooled)	39	29	2	3	5	74.35	12.56
Below cooler	155	99	11	18	27	63.87	17.41
Churn	225	136	12	27	50	60.44	22.22

The results of the first group of these combined examinations are given in Table IV. and the following points should be noted :—

1. There are many differences between the results of all three tests, the most important being low Bacterial Counts with very low reduction time for the same samples, but the majority of these occur with the uncooled milks, which would appear to confirm the claim that the Methylene Blue Reduction Test ascertains more accurately the activity of the organisms. There is very little co-relation between the presence of Coliform Organisms and the Methylene Blue Reduction Test results.

2. A larger percentage of samples fail to Bacterial Count and Coliform Organisms examinations than to the Methylene Blue Reduction Test.

3. There is a progressive rise in the presence of Coliform Organisms after the milk leaves the cowshed.

4. The percentage of unsatisfactory results increases after each successive utensil has been in contact with the milk, pointing to the paramount importance of sterilisation of the utensils.

5. A large percentage of the unsatisfactory results is due to churns, which, in the majority of cases, are returned as cleansed and sterilised with instructions that they should not be touched before being filled.

During the year, the Veterinary Staff examined and reported on approximately 2,000 "Accredited" premises, this work being mainly carried out between morning and evening herd inspections during the summer, and we appreciate, more than anyone else, the improved conditions found on many farms during our winter inspections, when cows are tied up.

Repeated failure of a few producers to comply with the conditions of their licenses, such as unsatisfactory samples, failure to mark cows, keep their registers, or furnish the quarterly clinical Certificate, have resulted in reports being made to the Committee, and, in certain cases, licenses have been suspended.

"TUBERCULIN TESTED" (LATE "CERTIFIED" AND "GRADE A. (T.T.)").

The number of producers licensed for "Tuberculin Tested" (late "Certified" and "Grade A (T.T.)") milk at 31st December, 1935, was ten, which increased to 23 at the end of 1936. Fifteen of the licenses had been issued by the Ministry of Health previous to the 1st June, and the remainder by the County Council. The increase is mainly due to the fact that producers of this grade of milk are exempt from registration with the Milk Marketing Board, with the result that they escape the payment of levies. Several of these herds, however, have not been built up on a sound basis, and the percentage

of reactors will be high for an indefinite period unless future management follows the principles enumerated below. Expenses of replacements etc., in such cases are excessive, which leads other producers to believe that the production of "Tuberculin Tested" milk is much more expensive than it actually need be. Herds handled on proper lines can produce "Tuberculin Tested" milk at 2d., or even less, per gallon over that for ordinary milk.

Complete registers of the herds are kept at Stafford, with details of their formation and maintenance, and periodical examinations of the markings of the animals are carried out.

I consider the requirements as regards markings are not sufficient, especially with regard to the transfer of animals from herd to herd, direct or through the markets, accompanied by a Certificate of a Tuberculin Test. A Scheme to increase the number of suitable "Tuberculin Tested" herds is under consideration, and is based on the information collected by the Veterinary Staff during the past two years. I think, therefore, it is opportune to repeat the advice given in the Annual Report for 1935, viz. :—

1. Herds should be self supporting as far as possible, and any producers who have such herds should get in touch with their Veterinary Surgeons at once and proceed by :—

- (a) Preliminary tuberculin testing of *all* stock.
- (b) Immediate eradication of all reactors amongst young stock, and isolate all non-reactors from adult stock.
- (c) Feed calves off cows which have passed the test.
- (d) Before bringing calving heifers into the sheds the required number of stalls should be made vacant together in one shed by moving cows into empty stalls. The stalls used for the heifers to be scrubbed out with hot water and soda, disinfected, and then treated with a blow-lamp. This process to be repeated with each lot of calving heifers so that the cows are gradually moved down to one end of the farm buildings,
- (e) All non-reacting milk stock to be grazed separate as far as possible, and fed, milked, etc., first.

2. Reacting cows can be removed when there are non-reacting calving heifers to replace them, unless, of course, the owner wishes to obtain a licence to produce "Tuberculin Tested" milk at once.

3. Stock from herds known to have been free from tuberculosis for some years should not be added to herds which have recently had a high percentage of reactors until all possible sources of infection have been dealt with thoroughly.

4. Where young stock are not up to the required numbers, the period of eradication can be shortened by purchasing :—

- (a) calves immediately after calving.
- (b) young stock previous to service, testing them immediately, and again a month before calving, or
- (c) calving heifers, if possible, one to two months before calving.

Purchases under (b) and (c) should be from breeding areas where the stock are tied in sheds as little as possible. These exist, as far as is known, in certain parts of Wales, Ireland and Scotland. Where a group of such stock has been purchased from a particular farm or area, and there is a high percentage of reactors, none of them should be retained, as it is probable that the majority of the remainder will react at the next tests, which, in calving heifers, means that they will have to be disposed of at considerable loss two to six months after they have calved, and are only one to five months in calf.

5. Farmers with two farms should be able to segregate at once all reactors, but the aim must always be to proceed on the above lines and rear all heifer calves from both places at the free premises, so that eradication at the second farm can be proceeded with after the first has been freed. If this is not done, the second herd deteriorates rapidly, and it should be noted that under the Milk (Special Designations) Order, 1936, it is not possible to have an "Accredited" licence for the farm to which reactors are moved.

MILK IN SCHOOLS SCHEME.

The supply of milk to schools under the Milk Marketing Board's scheme has again been supervised by the Veterinary Department. At the end of the year there were 133 suppliers of "Accredited," Pasteurised and ungraded milk to 361 schools, as detailed in the following table :—

<i>Type of Milk.</i>	<i>Number of suppliers.</i>	<i>Schs. or Depts. supplied</i>	<i>Children supplied.</i>
"Accredited"	84	181	14,285
"Pasteurised"	21	131	12,606
Undesignated	28	49	2,263
	<hr/> 133	<hr/> 361	<hr/> 29,154

The procedure adopted was similar to that of the previous year, namely, sampling of the supplies at least once each term *after* delivery to the schools. This was usually done towards the end of each term so that the bacteriological and biological examinations could be completed during the vacations, and any unsatisfactory

results investigated before the commencement of the next term. In addition, where raw milk is being supplied to schools, a clinical examination of the herds concerned is made during each term. Towards the end of the year, the increase of the staff in the Veterinary Department, combined with increased facilities for bacteriological examinations of milk samples, enabled milk supplies to be examined twice a term.

In the case of Pasteurised milk, two samples are taken after delivery at the school, whereas with 'raw' milk, one sample is taken after delivery at the school, plus an examination of the herd, together with a bulk sample for biological examination from all cows in the herd, with the exception of those dealt with by single sample or removal. Again, all samples of 'raw' milk, whether 'designated' or not, were examined bacteriologically according to the standards for 'Grade A' (later 'Accredited') milk. Pasteurised supplies sampled, during the last series of samples, were also submitted to the phosphatase test. This is a presumptive test, but investigations of milk pasteurised within the county, which had failed to pass this test, have almost invariably disclosed faults in the process.

The Veterinary Department collected at schools during the year 370 (1935—249) samples of milk, which were submitted to bacteriological, biological and phosphatase examinations, according to the supply. Seventy of the 273 samples examined bacteriologically failed to reach the standards for 'Grade A' or 'Accredited' milk.

It should be observed that samples taken for examination remain in the schools until approximately mid-day, and are then transported to the County Laboratory by rail or road, not being examined or put in the ice chest until 5.0—6.0 p.m. the same day. This ensures that the milk when delivered at the schools is of a high standard of cleanliness.

As regards unsatisfactory results, the suppliers and, in the case of 'raw' milk, the producers, are notified, advice given by letter, or a visit made by the Assistant Veterinary Officers, and repeat samples taken.

In the November/December series of samples, ten pasteurised supplies were submitted to the phosphatase test; nine passed and one failed. The latter, however, was satisfactory bacteriologically, but two of those which passed were unsatisfactory, which points to post-pasteurisation contamination.

As a result of the clinical examination of the herds, 32 cows, as possible sources of infection, were dealt with under the Tuberculosis Order, 1925, for various forms of tuberculosis.

There is still great difficulty in obtaining supplies for schools in rural areas, producers stating that owing to the restricted demand, 6d. per gallon is not sufficient to meet the extra cost of bottles, straws, labour, etc.

TUBERCULOSIS ORDER, 1925.

This Order, though made under the Diseases of Animals Acts, is so closely associated with the inspection of herds that it must form an appendix to any report under the Milk and Dairies Acts.

The following is a summary of cases dealt with during 1936 :—

TABLE V. A.

Number of premises on which disease was reported but not confirmed		209
Number of premises on which disease was declared to exist		1,879
	<i>At</i>	
	<i>Preliminary Inquiry.</i>	<i>Post-mortem examination.</i>
Number of animals having tuberculosis of the udder	655	899
Number of animals giving tuberculous milk	7	1
Number of animals suffering from tuberculous emaciation	199	199
Number of animals suffering from chronic cough and showing definite clinical signs of tuberculosis, and at post-mortem examination found to be affected, but not as in the above three classes	1,204	961
	<hr/> 2,065	<hr/> 2,060
Number of animals found on post-mortem examination to be not affected		2
		<hr/> 2,062*

* Two cows had been slaughtered by owners before post-mortem examination had been arranged, and one cow died before being moved to slaughter house.

RESULTS OF POST-MORTEM EXAMINATIONS :—

Number of animals certified as suffering from ADVANCED TUBERCULOSIS	1,112
Number of animals certified as suffering from TUBERCULOSIS NOT ADVANCED	948
Number of animals found to be NOT AFFECTED	2
	<hr/> 2,062
Number of animals for which compensation was paid	2,061
Total compensation paid	£10,788 15s. 0d.
Total salvage received	£3,465 15s. 2d.

TABLE V. B.
CASES REPORTED BY OWNERS, ETC.

Total No. of reports.	No. not dealt with under Order.	No. slaughtered	Advanced T.B.	Not Advanced T. B.	No. Not affected.
1,033	204	829	521	307	1

Compared with the previous year, there has been an increase of three hundred and twenty-eight in the number of cows slaughtered, and it will be noted that cases of Tuberculous Mastitis increased by one hundred and seventy-eight and Pulmonary Tuberculosis by two hundred and ten, whereas there was a decrease of forty-seven in those of Tuberculous Emaciation. Further, the percentage of "not advanced" cases found at routine examinations is higher than that for cows reported by owners, being 51.92 and 37.03, respectively, as compared with 55.9 and 35.7 for 1935.

I pointed out in last year's report that there would be no appreciable reduction in the number of cases of Tuberculous Mastitis until routine inspections had been carried out for a period of three to five years, but it should be noted that the gross infection was probably reduced. This is borne out by the returns of bulk sampling of two groups of herds inspected or sampled two to four times per annum :—

Group A.

March, 1936—40 suppliers—9 positive.

February, 1937—38 suppliers—2 positive.

Group B.

March, 1935—116 suppliers (approx.)—8 positive.

February, 1937—120 suppliers (approx.)—2 positive.

Approximately 69.5 per cent. of the animals slaughtered, following routine inspections, have been dealt with on clinical evidence, and the remainder diagnosed with the assistance of microscopical or biological examinations of milk, sputa, etc. The collection of sputa, however, is limited to otherwise suspicious cases or special investigations, as primary pulmonary tuberculosis appears to have very little influence on the incidence of Tuberculous Mastitis. Every opportunity was given for owners to be present at post-mortems, and this educational work has led to improvement in the feeding of calves, handling of young stock generally, and the earlier elimination of suspicious and aged animals.

Investigations and post-mortems were also carried out with regard to tuberculosis in swine, poultry and horses, as, in any intended scheme of eradication, the full field of infection should be carefully

mapped out. A point worthy of mention is the increased number of goats which is being kept for milking purposes, under more sheltered and intensive conditions than formerly.

The average compensation has increased from £4 16s. 7d. to £5 4s. 8d., which corresponds with the current market rise in dairy cows, due mainly to a scarcity in sound dairy cattle of all ages. As regards salvage, the average was £1 13s. 8d., compared with £1 11s. 6d. in 1935, and there was an increase in the surplus after paying expenses and the County's share of the compensation.

TABLE V. C.

EXTRACT FROM RETURNS UNDER TUBERCULOSIS ORDER, 1925

	1933.	1936.	
		Routine and "Section IV."	Reported by owners, etc.
T.B. udder	273	595	395
T.B. emaciation	818	199 961	
T.B. with cough	231		
Advanced	71 %	48.4 %	62.9 %
Not advanced	29 %	51.6 %	37.1 %

The above table is included to show the change in cases dealt with under the Order since the commencement of routine herd inspections, 1933 being taken as the last complete year previous to the organization of the Veterinary Department on the 1st October, 1934.

CHEMICAL EXAMINATION OF FOOD AND DRUGS.

Samples analysed under the Food and Drugs Acts are shown in the report of the County Analyst, already referred to, from which it will be observed that 2,579 samples were submitted, 2,377 of which were found to be genuine and 202 adulterated or below standard.

(1) MILK.

During the year 2,016 samples of ordinary milk were chemically examined and 189 were found to be unsatisfactory.

Ninety-five samples of specially designated milks were chemically examined, and 1 "Accredited" milk and 1 "Pasteurised" milk were found to be below standard.

The following samples were also examined :—50 sterilised milks and 1 skimmed milk. They were all found to be satisfactory except 1 sample of sterilised milk.

Action taken.—Of the 189 unsatisfactory samples of ordinary milk, 81 were informal and on these no direct action could be taken, but “follow up” samples were taken where possible.

In 59 cases, representing 85 unsatisfactory samples (two or more having been taken simultaneously from the same purveyor in several instances), the adulterations were small and cautions only were issued. Eleven prosecutions were instituted in respect of 16 samples containing added water.

The Farm Institute, Rodbaston, was asked to give assistance in respect of seven samples from one producer.

136 samples, which were below the presumptive standard in solids-not-fat, were found by the Freezing Point Depression test *not* to be adulterated with added water.

As regards the graded and other milks, cautions were issued in respect of one sample of “Accredited” milk which was deficient in fat, and one sample of Sterilised milk found to contain water. One informal sample of Pasteurised milk was found to contain a trace of added water.

In total, 61 retailers or producers were cautioned and eleven were prosecuted. Fines amounting to £57 10s. 0d. with £20 3s. 6d. costs were imposed.

(2) GENERAL ARTICLES OF FOOD.

Four hundred and seventeen general articles of Food and Drugs were examined, and ten were found to be adulterated or below standard.

Cautions were issued in respect of the following official samples:

- 1 Lard.
- 1 Mint Sauce.
- 1 Parrish’s Chemical Food.

Seven informal samples were found to be adulterated, viz :

- 1 Tincture of Iodine.
- 1 Plum Jam.
- 1 Parrish’s Chemical Food.
- 1 Malt Vinegar.
- 1 Golden Rusks.
- 2 Raspberry Jam.

PREVENTION OF, AND CONTROL OVER, INFECTIOUS DISEASE.

The scheme under Section 63 of the Local Government Act, 1929, has now been approved by the Minister of Health. By this scheme the Isolation Hospital Services in the County, apart from smallpox, will be provided in six areas, and hospitals will be

established—where they do not already exist—to serve these areas.

SMALLPOX.—No case of smallpox was recorded in 1936, a similar experience to that of last year. The last case recorded in the County was in 1930.

SCARLET FEVER.—The incidence of this disease in the County was less than that for the previous year. There were 1,868 notifications as against 2,142 last year, 1,383 in Urban Districts and 485 in Rural Districts. Eight deaths occurred in Urban Districts and two in Rural Districts. The case rate per thousand of the population is 2.55 compared with 2.53 for England and Wales as a whole. The death-rate in both the Urban and Rural Districts is 0.01. The prevailing type of the disease was mild.

DIPHTHERIA.—Fewer cases were notified in 1936 than in the previous year, the numbers being 709 as against 902. The decrease was general and in the Urban Districts there were 583 cases compared with 708 in 1935. One hundred and twenty-six cases were notified in Rural Districts as against 194 in the previous year. The case rate was 0.97 compared with 1.39 for England and Wales. Thirty-seven deaths occurred in Urban Districts with a death-rate of 0.06 per thousand of the population. Eight died in Rural Districts which yields a death-rate of 0.04. On reference to the tables at the end of the Report the numbers and death-rates for each Sanitary District will be found. The prevailing form of diphtheria, although more severe than scarlet fever, was mild. Cases were notified in each of the 35 Sanitary Districts.

By arrangement with the District Medical Officers of Health, the Assistant Medical Officers carried out Schick testing and immunization in children attending schools in the Aldridge, Brierley Hill, Brownhills, Leek, Sedgley, Stafford, Uttoxeter and Willenhall Urban Districts, and the Cannock and Uttoxeter Rural Districts. The work undertaken was a continuation of that started in previous years, except in Sedgley, where it was first commenced in 1936.

Full advantage has been taken of the facilities afforded at the County Laboratory for bacteriological investigations, and 10,994 specimens were sent by medical practitioners, compared with 11,893 in the previous year. This included 59 virulence tests undertaken in special cases.

ENTERIC FEVER.—Twenty-three notifications of typhoid fever in Urban and three in Rural Districts were received during the year, compared with the total of twelve in 1935. Four deaths occurred in Urban Districts. The case rate was 0.03 compared with 0.06 for England and Wales. On reference to the tables at the end of the report, the areas in which these cases occurred will be seen.

ENCEPHALITIS LETHARGICA.—One case was notified during 1936, but eleven deaths were reported, and the districts in which they occurred will be found in the tables at the end of the Report.

DYSENTERY.—During the year 17 cases of dysentery were notified. Twelve of these were at the Cheddleton Mental Hospital, and the remainder in the following districts :—Stone U.D., 1 ; Tipton U.D., 1 ; Willenhall U.D., 2 ; Cannock R.D., 1.

CEREBRO-SPINAL FEVER.—During the year 26 cases were notified, 21 in Urban Districts and 5 in Rural Districts. In no instance did these cases constitute an epidemic. The number of deaths from cerebro-spinal fever registered during the year is 19.

Sixty-eight specimens of cerebro-spinal fluid were examined in the County Bacteriological Laboratory. In addition, 16 swabs were examined. In various areas throughout the County the services of Consultants are at the disposal of General Practitioners, and special arrangements have been made for the cerebro-spinal fluid to be sent to the Laboratory in a portable incubator, because these organisms do not survive if sent through the post in the ordinary way.

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

MEASLES.—There were 27 deaths in Urban Districts with a death-rate of 0.05, and 4 deaths in Rural Districts with a death-rate of 0.02. As the disease is not notifiable the number of cases is unknown, but from the returns sent by the Head Teachers of Elementary Schools, I find that a total of 2,646 cases of measles and 503 cases of German measles occurred in children of school age.

At the same time, it must be pointed out that the cases so reported relate only to the County Elementary Education Area, having an estimated population of 463,210 out of 731,700 for the Administrative County, and consequently there must have been many more cases.

WHOOPING COUGH.—In 1936 there were 20 deaths in Urban Districts with a death-rate of 0.03 and 10 deaths in Rural Districts with a death-rate of 0.05. The deaths occurred in 12 of the 25 Urban Districts ; only 5 of the 10 Rural Districts were affected. The school teachers in the County Elementary Education Area reported 1,285 cases in children of school age, but the disease specially attacks children during infancy, and is more fatal at that period of life. As the disease is not notifiable we have no accurate knowledge of its incidence.

Prevention of, and Control over, Infectious Disease— 109
Diarrhœa and Enteritis—Influenza—Vaccination.

DIARRHŒA AND ENTERITIS.—65 deaths occurred in Urban Districts with a death-rate of 6.7 per thousand live births, and 7 in Rural Districts with a death-rate of 2.5 per thousand births, in children under 2 years of age. The cases occurred in 17 of the Urban Districts and in 5 of the Rural Districts.

INFLUENZA.—In 1936 there were 91 deaths in Urban and 30 in Rural Districts, as compared with 125 and 45, respectively, during the previous year.

The number of cases of Notifiable Infectious Diseases, with the deaths, in the Administrative County during 1936, are as follows :—

Diseases.	Notifications.		Deaths.		†Cases admitted to Hospital.
	Urban.	Rural.	Urban.	Rural.	
Small-pox	—	—	—	—	—
Scarlet Fever	1,383	485	8	2	1,111
Diphtheria	583	126	37	8	566
Enteric Fever	23	3	4	—	21
Puerperal Fever	14	8	12	2	{ 17
Puerperal Pyrexia	67	14			{ 48
Erysipelas	269	67	*	*	30†
Cerebro-Spinal Fever	21	5	13	6	20
Poliomyelitis	6	—	1	—	3
Pneumonia	859	183	442	98	34†
Encephalitis Lethargica	1	—	9	2	—
Dysentery	4	13	*	*	14

* Not classified in Registrar-General's Return.

† Information obtained from District Reports.

‡ Complete figures not available.

VACCINATION.

The ineffectiveness of the working of the Vaccination Acts is shown on examination of the Returns of the various Vaccination Officers for the year 1st January to 31st December, 1935, where it is seen that out of 10,372 children born during the year in whom vaccination was possible, only 28.8 per cent. were subsequently protected against smallpox.

CANCER.

In the following table, the deaths from cancer during 1936, in age and sex groups, in the Urban and Rural Districts of the County, are shown : —

Age Groups	Urban Districts.			Rural Districts.			Grand Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
0-	—	—	—	—	—	—	—
1-	—	—	—	—	—	—	—
2-	—	1	1	—	—	—	1
5-	—	1	1	—	—	—	1
15-	3	4	7	1	—	1	8
25-	7	7	14	4	—	4	18
35-	11	26	37	4	4	8	45
45-	38	64	102	5	17	22	124
55-	104	115	219	36	35	71	290
65-	129	93	222	31	44	75	297
75-	63	66	129	24	31	55	184
Totals	355	377	732	105	131	236	968

Attention has been directed to the increase in the number of deaths from this cause in recent years. Leaflets, giving information on the matter, have been distributed at the Maternity and Child Welfare Centres in the Health Visiting Area, in which the urgent need for early treatment is stressed, and it is pointed out that in many instances the early stages of this disease are painless, so that many sufferers do not seek advice until it is too late to expect a definite cure. The surgical treatment required is given at the voluntary hospitals. At the North Staffordshire Royal Infirmary treatment by radium is available, and, in special instances, cases requiring deep ray therapy are referred to the Birmingham Dudley Road Institution. The County Council have now decided to provide a Hospital of 400 beds in the north of the County, and a similar one in the south of their area, under the Scheme adopted as a result of the Local Government Act, 1929. These Hospitals will provide surgical treatment, but those cases requiring either radium treatment or deep ray therapy will be referred to the Institutions already mentioned.

TUBERCULOSIS.

At the end of the year there were 6,754 cases of all forms of tuberculosis on the registers of the District Medical Officers of Health, made up as follows :—

TOTAL CASES.	PULMONARY.			NON-PULMONARY.		
	M.	F.	Total.	M.	F.	Total.
6,754	2,433	2,271	4,704	1,084	966	2,050

This indicates that there is one case of tuberculosis in every 108 persons, or just 9.2 per 1,000 of the population, and, on reference to the mortality tables which follow, it will be found that approximately one death occurred amongst sixteen cases in the year.

During the year, 358 persons died from pulmonary tuberculosis, giving a death-rate of 0.49 per thousand of the population, whilst 74 deaths occurred from other forms of tuberculosis with a death-rate of 0.10.

The following table shows new cases of tuberculosis, including primary notifications and cases which came to notice otherwise than by formal notification, and deaths from the disease classified according to ages and sex :—

AGE PERIODS.	NEW CASES.				DEATHS.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0-.....	2	2	4	5	1	1	2	6
1-.....	4	3	17	15	1	4	7	6
5-.....	24	19	38	25	2	2	11	7
10-.....	18	19	20	16				
15-.....	35	52	11	8	34	46	7	2
20-.....	55	72	7	10				
25-.....	87	64	6	19	46	43	2	6
35-.....	61	43	4	6	29	30	4	4
45-.....	58	22	1	1	55	17	—	1
55-.....	34	11	3	3	25	7	2	2
65 and upwards	14	3	—	—	10	5	3	2
Totals	392	310	111	108	203	155	38	36

In the General Tables at the end of the Report, the death-rates for each Sanitary District during 1936 will be found.

On reference to the tables, it will be seen that, as regards the pulmonary form of the disease, the incidence is greater in males than in females, but is more marked in females between the ages of 15 and 25. It will also be noted that more deaths occur in young women but after the age of 35 more men are fatally affected. The non-pulmonary forms of the disease occur mainly before adult life is reached, and are particularly fatal during the first years of life. In the succeeding years the disease is more chronic, and, whilst resulting in much disability and ill-health, does not often cause death. The non-pulmonary forms arise from infection through tuberculous milk and from open cases of pulmonary tuberculosis.

The following shows the number of primary notifications received since 1913 :—

1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
1722	1399	1233	1048	873	856	699	642	929	971	1029	974	1232

1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
1400	1106	1194	1017	1021	1129	1074	1011	929	825	831

With regard to notifications, speaking generally, this duty is satisfactorily performed in the County. As already noted the ratio of deaths to cases is approximately one to sixteen, and this compares favourably with the figure laid down by experts that for every death there are at least ten persons suffering from the disease. The District Medical Officers of Health reported 90 cases as against 102 last year that had come to their knowledge in various ways not having been previously notified. It was found that 52 had died without being formally notified under the Regulations: 31 were taken from the death returns of the local Registrars, and 16 were transferable deaths sent by the Registrar-General, that is to say the death occurred outside the district where the person usually resided. Five cases were notified to the Medical Officer of Health after the death had occurred.

The ratio of non-notified tuberculosis deaths to the total tuberculosis deaths is 1 in 8.31; roughly 8 out of 9 deaths were notified under the Regulations before death.

With regard to the unreported cases, I am afraid we cannot expect always to receive the notifications before death, especially where the disease is extremely acute, and some cases are bound to occur in which the practitioner was under the impression that the disease had been notified previously.

DISPENSARIES AND TREATMENT.

The Tuberculosis Dispensaries in the County are under the control of the Joint Committee for Tuberculosis. There are thirteen Dispensaries of which four are main Dispensaries and have been built specially for the purpose. I mentioned last year that premises had been acquired at Shelfield which would be adapted for use as a Sub-Dispensary. The necessary conversion was carried out and it was open to receive patients on the 6th October, 1936. The Sub-Dispensary is mainly intended to serve the Aldridge Urban District and the Walsall Wood portion of the Brownhills Urban District.

An account of the treatment afforded for tuberculosis will be found in the annual report of the Joint Committee of the Staffordshire County Council and the Wolverhampton and Dudley County Boroughs. This body is only responsible for treatment and not for measures of prevention, which duty falls upon the District Councils, and their contribution towards the measures for dealing with this complex subject relates to the environmental conditions of the patient, among these being adequate housing in each district, which is of paramount importance. An investigation of the environmental conditions of each patient is made by the Health Visitors as soon as the disease is notified, and although every effort is made to arrange the accommodation in the house so that the patient can have a room to himself, this has only been found possible in 37.6 per cent. of the cases reviewed in the Joint Committee's area in 1936. In every case in which overcrowding occurred the District Medical Officer's attention was specially drawn to the matter, but for some years now it has been found very difficult to take adequate measures.

At the same time, I desire to emphasise the necessity of District Councils utilising to the full all the powers they possess under the Housing Acts, for it is one of the primary duties of a Sanitary Authority to provide adequate housing accommodation for the population in their area.

During the year, no action was found to be necessary under the Public Health (Prevention of Tuberculosis) Regulations, 1925, which prohibit persons suffering from tuberculosis engaging in milking operations.

No action was taken under Section 62 of the Public Health Act, 1925, during the year.

The accompanying table shows the death-rates in the Urban and Rural Districts of the County from 1914 : —

Year.	Death Rate per 1,000 of the Population.			
	Phthisis.		Other forms of Tuberculosis.	
	Urban.	Rural.	Urban.	Rural.
1914	0.89	0.54	0.31	0.20
1915	0.94	0.67	0.34	0.29
1916	1.01	0.80	0.40	0.29
1917	1.01	0.74	0.34	0.31
1918	1.03	0.88	0.31	0.28
1919	0.83	0.61	0.22	0.30
1920	0.75	0.56	0.30	0.21
1921	0.80	0.53	0.23	0.21
1922	0.80	0.55	0.24	0.17
1923	0.75	0.58	0.25	0.22
1924	0.73	0.58	0.22	0.20
1925	0.83	0.49	0.22	0.14
1926	0.74	0.50	0.22	0.11
1927	0.73	0.44	0.21	0.22
1928	0.64	0.48	0.14	0.13
1929	0.76	0.54	0.15	0.12
1930	0.72	0.54	0.15	0.13
1931	0.78	0.52	0.17	0.13
1932	0.64	0.42	0.16	0.14
1933	0.72	0.50	0.14	0.08
1934	0.67	0.43	0.11	0.16
1935	0.67	0.35	0.13	0.08
1936	0.53	0.34	0.11	0.08

W. D. CARRUTHERS,

County Medical Officer of Health.

September, 1937.

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.

DISTRICT.	Population at all ages.		Number of Persons per acre.	Live Birth-rate per 1,000 of population.	Still-births, Rate per 1,000 of Population.	Crude death-rate per 1,000 of population.	Adjusted death-rate by comparability factor.	Mortality in children under one year per 1000 registered live births.	Zymotic Mortality. Per 1,000 of population.						Per 1,000 of Population.						Nephritis.	Congenital Debility and Malformation, Premature Birth.			
	Census 1931 of areas as constituted after changes in Boundary.	Estimated to middle of 1936.							Typhoid and Paratyphoid Fevers.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Diarrhoea, etc. (under 2 years).	Tuberculosis of Respiratory System.	Other Tuberculous Disease s.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.			Other Respiratory Diseases.	Cirrhosis of Liver.	
Aldridge	14,446	16,290	1.8	16.7	0.98	10.5	12.0	70	0.06	0.06	0.49	0.06	1.10	0.18	0.43	0.06	0.55	0.80
Amblecote	3,099	2,998	4.5	12.0	17.3	16.8	55	1.33	3.00	0.33	0.33	0.67
Biddulph	8,990	9,514	1.4	18.9	1.26	10.1	11.4	33	0.10	0.42	0.10	0.73	0.31	0.73	0.31	0.42	0.52
Bilston	31,221	31,640	16.9	19.5	0.50	10.3	12.5	65	0.06	0.12	0.12	0.06	0.63	1.10	0.57	0.95	0.03	0.35	0.54
Brierley Hill	44,671	45,490	7.7	16.8	0.66	10.6	11.6	85	.....	.....	0.02	0.06	.....	.....	.....	0.55	0.22	1.19	0.59	0.57	0.22	0.02	0.31	0.77
Brownhills	18,368	19,200	3.0	18.7	0.94	11.5	13.3	69	.....	.....	0.10	0.05	.....	.....	.....	0.41	0.21	1.20	0.52	0.88	.....	.....	0.10	0.88
Cannock	35,300	36,230	4.4	17.8	0.85	11.4	12.6	84	.....	.....	0.11	0.05	0.03	0.03	0.11	0.47	0.05	1.43	0.63	0.83	0.11	0.03	0.19	0.72
Coseley	25,137	27,460	8.3	19.9	0.73	11.5	13.3	86	.....	.....	0.18	.....	.....	.....	.....	0.62	0.03	1.24	0.54	1.20	0.11	.....	0.18	0.87
Darlaston	20,053	19,950	13.0	17.0	0.70	10.7	13.2	65	.....	.....	.....	0.05	0.05	.....	.....	1.15	0.25	1.15	0.60	1.00	0.15	0.10	0.15	0.65
Kidsgrave	14,940	14,670	3.6	17.7	0.75	11.6	13.3	65	.....	.....	0.07	.....	.....	0.07	7.7	0.34	.....	1.16	0.34	0.48	0.13	.....	0.27	0.75
Leek	19,442	19,470	4.5	14.0	1.08	12.3	12.8	37	0.05	.....	0.05	.....	.....	.....	.....	0.46	0.10	1.74	0.25	0.31	0.10	0.05	0.51	0.41
Lichfield	8,574	8,652	2.4	16.2	0.69	14.0	12.2	64	.....	.....	0.11	.....	.....	.....	.....	0.69	.....	0.81	0.92	0.58	0.92	.....	0.11	0.81
Newcastle	54,739	61,200	6.9	16.7	0.72	11.6	13.0	62	0.01	.....	0.13	0.01	0.01	.....	5.9	0.54	0.24	1.68	0.49	0.81	0.13	.....	0.31	0.46

Deaths occurring during the year 1936 classified according to Diseases and Localities,
together with Births occurring during the year.

URBAN

District	Live Births.	Still-Births.	Deaths from all causes.	Deaths under 1 year.	Smallpox.	Typhoid and Paratyphoid Fevers.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Encephalitis Lethargica.	Cerebro-Spinal Fever.	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Syphilis.	General Paralysis of the Insane, Tabes Dorsalis.	Cancer, Malignant Disease.	Diabetes.	Cerebral Hemorrhage, etc.	Heart Disease.	Aneurysm.	Other Circulatory Diseases.	Bronchitis.	Pneumonia, (All Forms)	Other Respiratory Diseases.	Peptic Ulcer.	Diarrhea, etc. (under 2 years).	Appendicitis.	Cirrhosis of Liver.	Other Diseases of Liver, etc.	Other Digestive Diseases.	Nephritis.	Peritoneal Sepsis.	Cancer of Peritoneal Causes.	Congenital Debility, Premature Birth, Malformation, etc.	Senility.	Suicide.	Other Violence.	Other Defined Diseases.	Causes ill-defined or Unknown.			
Aldridge	272	16	171	19	-	-	-	1	-	1	-	1	1	8	1	1	-	1	18	410	35	-	9	3	7	1	2	1	2	-	4	-	-	3	9	-	-	13	12	310	14	-		
Amblecote	36	52	2	-	-	-	-	-	-	3	-	-	4	-	-	-	9	16	16	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	2	3	-	4	-			
Biddulph	180	12	96	6	-	-	-	-	-	1	2	-	-	4	1	-	-	7	2	8	22	1	2	3	7	3	2	3	2	-	1	-	1	-	3	4	1	-	5	1	5	9	-	
Bilston	617	16	326	40	-	-	4	-	4	2	19	1	-	20	-	-	1	35	215	58	1	5	18	30	1	2	10	1	2	10	1	-	-	6	11	2	-	17	9	512	34	-		
Brierley Hill	766	30	483	65	-	-	-	-	3	1	8	1	1	25	10	1	1	54	637	85	-	17	27	26	10	4	3	2	1	6	12	14	-	3	35	27	224	37	-					
Brownhills	360	18	222	25	-	-	-	-	1	2	5	-	-	8	4	1	-	23	413	58	-	5	10	17	-	4	2	-	-	-	-	1	3	2	-	1	17	6	511	19	-			
Cannock	644	31	415	54	-	-	1	1	2	4	4	-	2	17	2	-	1	52	515	87	1	15	23	30	4	4	10	4	1	1	15	7	-	1	26	23	425	28	-					
Coseley	547	20	315	47	-	-	2	-	-	5	1	1	5	17	1	-	-	34	418	62	-	6	15	33	3	4	5	-	-	-	-	-	5	5	1	-	24	28	216	18	-			
Darlaston	340	14	213	22	-	-	-	1	1	-	6	1	1	23	5	-	-	23	4	5	41	-	14	12	20	3	1	-	1	2	1	-	-	-	-	3	-	2	13	10	4	7	8	-
Kidsgrove	260	11	170	17	-	-	1	-	-	1	2	-	1	5	-	-	-	17	2	6	56	1	5	5	7	2	2	2	1	-	-	-	4	4	-	1	11	5	111	17	-			
Leek	272	21	239	10	-	1	-	-	-	1	5	2	-	9	2	-	-	34	417	69	-	10	5	6	2	2	6	-	-	3	1	1	6	10	-	1	8	5	111	19	-			
Lichfield	140	6	121	9	-	-	-	-	-	1	2	-	-	6	-	-	1	7	1	3	35	-	13	8	5	8	-	1	-	3	-	1	-	-	1	1	7	2	1	3	11	-		
Newcastle	1022	44	709	64	-	1	8	1	1	-	9	1	1	33	15	3	4	103	11	40	171	231	30	50	8	6	6	4	-	-	5	6	19	3	4	28	19	326	57	-				

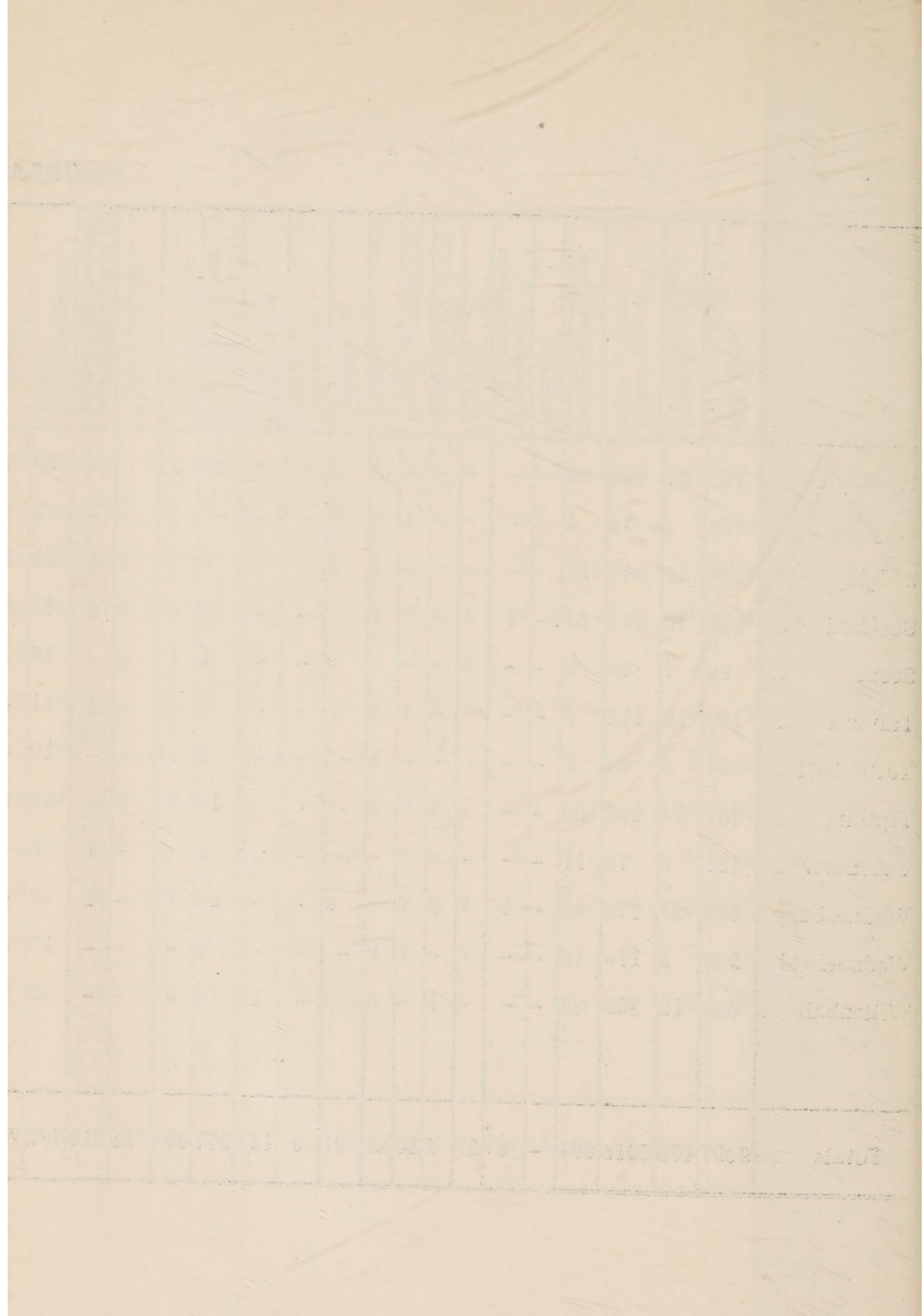
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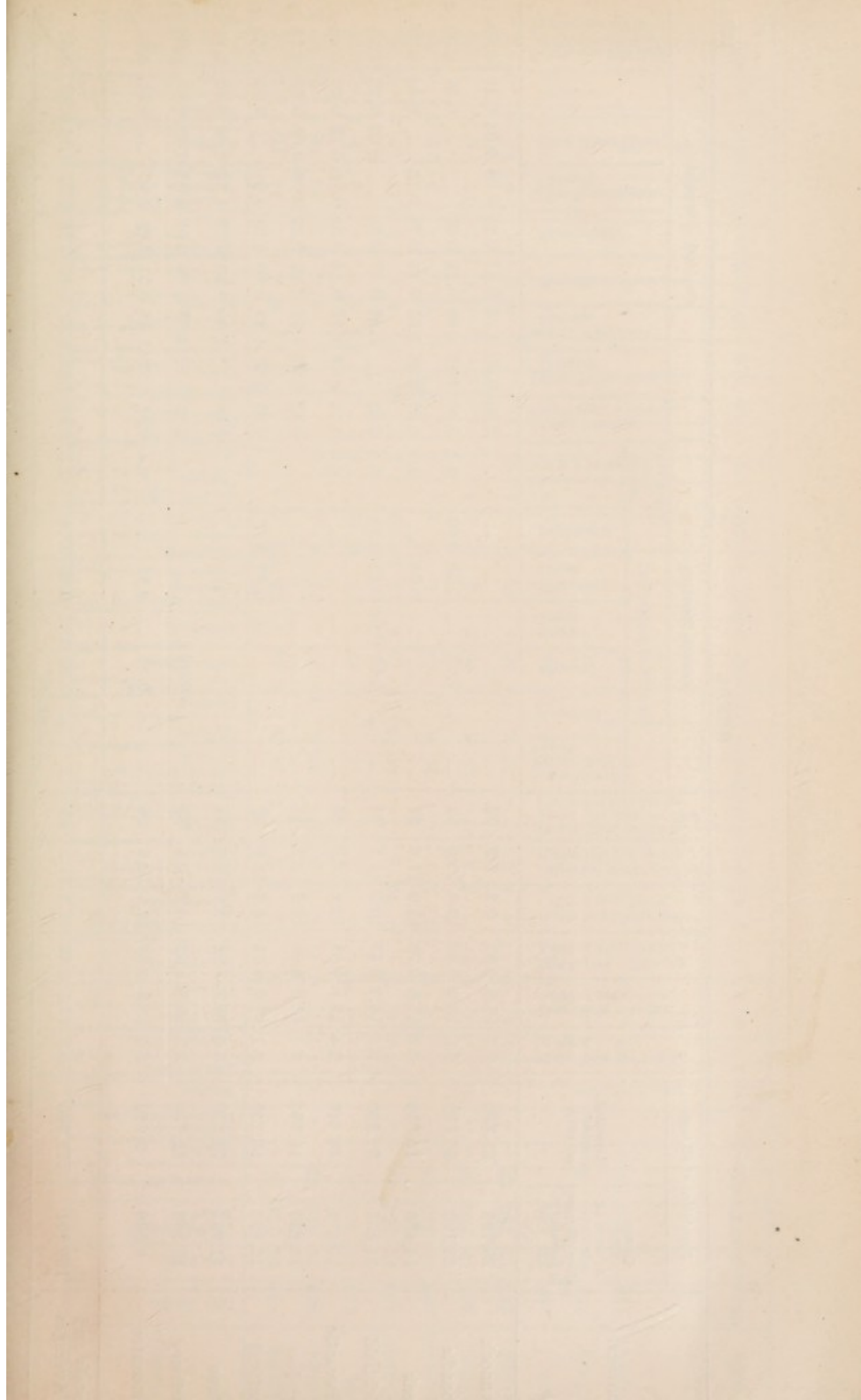
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District.	Population at all ages.		Number of Persons per acre.	Live Birth-rate per 1,000 of population.	Still-births. Rate per 1,000 of population.	Crude death-rate per 1,000 of population.	Adjusted death-rate by comparability factor.	Mortality in children under one year, per 1,000 registered live births.	Zymotic Mortality.						Per 1,000 of Population.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	Census 1931 of areas as constituted after changes in Boundary.	Estimated to middle of 1936.							Per 1,000 of Population.						Typhoid and Paratyphoid Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Diarrhea, etc. (under 2 years).	Per 1,000 Live Births	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Other Respiratory Diseases.	Cirrhosis of Liver.	Nephritis.	Congenital Debility and Malformation, Premature Birth.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

URBAN—continued.

DISTRICT.	Live Births.	Still-Births.	Deaths from all causes.	Deaths under 1 year.	Smallpox.	Typhoid and Paratyphoid Fevers.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Encephalitis Lethargica.	Cerebro-Spinal Fever.	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Syphilis.	General Paralysis of the Insane. Tabes Dorsalis.	Cancer. Malignant Disease.	Diabetes.	Cerebral Hemorrhage, etc.	Heart Disease.	Aneurysm.	Other Circulatory Diseases.	Branchitis.	Pneumonia (all Forms).	Other Respiratory Diseases.	Psittic Ulcer.	Diarrhoea, etc. (under 2 years).	Appendicitis.	Cirrhosis of Liver.	Other Diseases of Liver, etc.	Other Digestive Diseases.	Nephritis.	Puerperal Sepsis.	Other Puerperal Causes.	Congenital Debility, Premature Birth, Malformation, etc.	Senility.	Suicide.	Other Violence.	Other Defined Diseases.	Causes ill-defined or unknown.
Rowley Regis	769	37	489	39	-	-	-	-	3	5	1	-	26	6	1	-	53	4	48	104	2	14	29	38	8	2	3	2	-	1	8	10	-	1	24	29	12	24	30	1	
Rugeley	158	1	72	4	-	-	-	1	1	2	-	-	-	-	-	-	2	2	2	19	2	7	3	6	4	-	-	2	-	-	-	1	-	-	2	4	1	1	10	-	
Sedgley	288	14	220	21	-	-	-	1	2	-	-	-	6	1	1	1	22	3	24	60	-	3	12	23	-	1	1	1	-	-	3	4	1	1	9	14	2	7	17	-	
Stafford	395	19	337	24	-	1	1	1	1	4	-	-	18	4	2	2	47	6	15	70	1	19	20	19	2	2	1	2	6	1	8	17	-	1	18	14	5	8	21	-	
Stone	69	7	70	6	-	-	1	-	-	2	-	-	1	1	-	-	10	-	7	20	-	1	2	1	-	2	-	-	-	-	-	1	-	-	3	8	-	2	8	-	
Tamworth	160	10	111	9	-	-	-	1	1	1	-	-	4	-	-	1	11	-	12	19	-	7	4	3	1	-	-	-	1	3	2	2	-	1	6	7	2	7	15	-	
Tettenhall	82	8	68	5	-	-	-	-	1	-	-	-	2	1	-	-	10	-	1	22	-	2	5	4	1	1	1	-	1	1	3	-	-	2	1	2	3	4	-		
Tipton	733	14	432	56	-	2	1	2	5	4	-	-	19	2	3	-	36	5	36	81	1	5	28	41	5	3	6	3	-	2	5	9	1	2	25	33	6	21	40	-	
Uttoxeter	121	6	78	11	-	-	-	-	-	-	-	-	1	-	-	1	6	-	4	10	-	6	4	12	1	1	3	-	1	5	3	1	-	6	2	1	3	7	-		
Wednesbury	600	30	378	41	-	1	7	2	2	1	3	-	21	1	-	1	60	-	18	71	2	17	16	29	2	3	4	4	1	2	4	8	1	1	22	20	5	12	37	-	
Wednesfield	240	8	119	15	-	-	-	1	2	-	-	-	6	-	-	-	17	-	1	35	-	6	3	12	1	2	1	2	-	-	1	1	-	-	7	-	5	6	10	-	
Willenhall	626	12	309	53	-	-	1	2	2	-	1	14	3	-	-	-	42	6	11	73	1	10	8	15	1	4	6	3	2	1	8	4	-	2	32	25	-	11	21	-	
Totals	9697	405	6215	664	-	4	27	8	20	37	91	9	13	297	60	14	15	732	76	372	1379	15	229	294	442	71	58	65	43	15	29	108	162	12	22	362	307	73	268	495	1





RURAL

District.	Population at all ages.		Mean Area per Person in acres.	Live Birth-rate per 1,000 of population.	Still-births, Rate per 1,000 of Population.	Crude death-rate per 1,000 of population.	Adjusted death-rate by comparability factor.	Mortality in children under one year per 1000 registered live births.	Zymotic Mortality.						Per 1000 of Population.										
	Census 1931 of areas as constituted after changes in Boundary.	Estimated to middle of 1936.							Per 1000 of population.						Diphtheria &c under 2 years	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Other Respiratory Diseases.	Cirrhosis of Liver.	Nephritis.	Congenital Debility & Malformation, Premature Birth.	
									Typhoid and Paratyphoid Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.											
Cannock	20,792	21,330	2.7	17.5	0.98	9.2	9.8	53	.....	.....	.....	.....	.....	.....	.....	.....	0.33	0.09	1.12	0.47	0.28	0.09	0.04	0.19	0.65
Cheadle	28,102	30,130	2.0	15.9	0.86	10.4	10.9	52	.....	.....	0.03	.....	0.03	0.03	2.1	0.30	0.16	1.09	0.26	0.60	.....	.....	.....	0.50	0.50
Leek	14,435	15,830	4.6	17.5	0.76	11.9	11.8	61	.....	.....	.....	.....	0.06	.....	3.6	0.31	0.06	1.01	0.44	0.76	0.12	.....	.....	0.44	0.50
Lichfield	31,551	31,260	2.7	14.7	0.57	10.7	11.1	85	.....	.....	0.03	0.06	0.13	0.19	6.5	0.45	.....	1.41	0.57	0.64	.....	0.03	0.25	0.70	0.48
Newcastle	16,872	16,440	2.4	12.1	0.91	12.8	12.7	65	.....	.....	.....	.....	.....	.....	5.0	0.18	0.06	1.82	0.24	0.55	0.06	0.12	0.67	0.48	0.78
Seisdon	13,850	15,380	2.7	15.9	0.65	10.6	9.3	57	.....	.....	.....	.....	.....	.....	.....	0.32	0.06	1.62	0.32	0.32	0.06	0.06	0.26	0.78	0.60
Stafford	12,895	13,190	6.1	16.0	0.98	13.6	11.9	57	.....	.....	.....	.....	0.07	0.07	.....	0.30	0.07	1.89	0.30	0.53	0.07	.....	0.38	0.60	1.14
Stone	11,945	12,220	5.0	15.9	1.06	13.7	12.6	87	.....	.....	.....	.....	.....	.....	.....	0.65	.....	1.06	0.33	0.33	0.24	0.08	0.59	0.25	0.62
Tutbury	10,356	11,770	2.7	15.5	1.02	10.7	9.5	33	.....	.....	0.08	.....	.....	.....	.....	0.25	0.17	1.10	0.76	0.93	0.08	0.08	0.52	0.62	0.62
Uttoxeter	8,906	9,650	5.9	12.3	0.93	13.7	12.0	84	.....	.....	0.10	.....	0.31	.....	8.4	0.31	0.10	1.35	0.31	0.62	0.10	.....	0.40	0.62	0.62
Totals and Averages	169,704	177,200	3.3	15.5	0.84	11.3	11.1	63	.....	.....	0.02	0.01	0.05	0.04	2.5	0.34	0.08	1.33	0.40	0.55	0.07	0.04	0.40	0.62	0.62

RURAL.

District.	Live Births.	Still-Births.	Deaths from all causes.	Deaths under 1 year.	Smallpox.	Typhoid and Paratyphoid Fevers.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Encephalitis Lethargica.	Cerebro-Spinal Fever.	Tuberculosis of Respiratory System.	Other Tuberculous Diseases.	Syphilis.	General Paralysis of the Insane, Tabes Dorsalis.	Cancer, Malignant Disease.	Diabetes.	Cerebral Hemorrhage, &c.	Heart Disease.	Aneurysm.	Other Circulatory Diseases.	Bronchitis.	Pneumonia (all forms).	Other Respiratory Diseases.	Peptic Ulcer.	Diarrhoea, &c. (under 2 years).	Appendicitis.	Cirrhosis of Liver.	Other Diseases of Liver, &c.	Other Digestive Diseases.	Nephritis.	Puerperal Sepsis.	Other Puerperal Causes.	Congenital Debility, Premature Birth, Malformation, etc.	Senility.	Suicide.	Other Violence.	Other Defined Diseases.	Causes ill-defined or unknown.		
Cannock	374	21	196	20	-	-	-	-	-	-	4	-	2	7	2	-	1	24	3	8	42	-	12	10	6	2	-	-	-	1	1	3	4	-	1	14	17	2	14	16	-		
Cheadle	480	26	313	25	-	-	1	-	1	1	4	1	1	9	5	3	-	33	4	18	67	-	22	8	18	-	6	1	5	-	2	8	15	1	2	15	14	2	16	28	2		
Leek	277	12	188	17	-	-	-	-	1	-	1	1	-	5	1	-	-	16	-	6	47	-	16	7	12	2	2	5	1	1	-	1	5	7	-	-	8	8	1	7	30	-	
Lichfield	460	18	334	39	-	-	1	2	4	6	3	-	-	-	14	-	-	44	2	16	72	2	18	18	20	-	4	3	2	2	1	3	8	8	-	3	22	12	2	14	30	-	
Newcastle	200	15	210	13	-	-	-	-	-	-	7	-	2	3	1	-	1	30	6	11	48	-	8	4	9	1	2	-	2	2	-	-	7	11	-	-	8	18	3	9	16	-	
Seisdon	245	10	163	14	-	-	-	-	-	-	4	1	-	5	1	-	-	25	4	11	46	2	5	5	5	1	1	-	-	1	-	-	4	4	1	1	12	4	1	7	10	3	
Stafford	211	13	180	12	-	-	-	-	1	1	3	-	-	4	1	-	-	25	6	12	42	-	10	4	7	1	2	-	-	-	-	-	-	5	5	-	1	8	12	5	8	17	-
Stone	195	13	168	17	-	-	-	-	-	-	1	-	-	8	-	-	1	13	2	12	36	-	18	4	4	3	1	1	2	1	1	1	4	6	-	2	14	15	1	2	15	2	
Tutbury	183	12	126	6	-	-	1	-	-	-	-	-	1	3	2	-	-	13	4	6	26	-	10	9	11	1	-	1	1	-	-	-	2	7	-	-	3	9	-	6	10	-	
Uttoxeter	119	9	122	10	-	-	1	-	3	-	3	-	-	3	1	-	-	13	4	5	41	-	14	3	6	1	-	1	-	-	-	-	1	5	-	1	9	-	1	10	-		
Totals	2744	149	2010	173	-	-	4	2	10	8	30	2	6	61	14	3	3	236	35	105	467	4	133	72	98	12	20	7	13	7	8	47	72	211	110	118	17	84	182	7			

Table showing the number of cases of certain Infectious Diseases notified in each sanitary area during the 53 weeks ended 2nd January, 1936, and the Attack-Rates per 1,000 of the population.

URBAN

District.	Estimated Population at the middle of 1936 for calculating rates.	Small-pox		Scarlet Fever		Diphtheria		Enteric Fever		Puerperal Fever		Erysipelas		Pneumonia		Cerebro-spinal Fever Cases	Polio-myelitis Cases	Lethargic Cases	Puerperal Pyrexia Cases
		Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate				
Aldridge	16,290	.....	.....	81	4.97	13	0.80	1	0.06	1	0.06	13	0.80	19	1.16	1	.....	.....	.....
Amblecote	2,998	.....	.....	5	1.67	3	1.00	.....	.....	.....	.....	3	1.00	.....	.....	.....	.....	.....	2
Biddulph	9,514	.....	.....	26	2.73	16	1.68	.....	.....	1	0.10	10	1.05	43	4.52	2	.....	.....	2
Bilston	31,640	.....	.....	47	1.48	28	0.88	.....	.....	.....	.....	15	0.47	113	3.57	.....	.....	.....	4
Brierley Hill	45,490	.....	.....	97	2.13	43	0.94	.....	.....	.....	.....	34	0.75	35	0.77	1	1	.....	7
Brownhills	19,200	.....	.....	136	7.08	9	0.47	.....	.....	.....	.....	14	0.73	32	1.66	2	2	.....	6
Cannock	36,230	.....	.....	127	3.50	52	1.43	1	0.03	1	0.03	20	0.55	11	0.30	2	.....	.....	6
Coseley	27,460	.....	.....	54	1.96	43	1.56	.....	.....	2	0.07	15	0.54	64	2.33	3	.....	.....	3
Darlaston	19,950	.....	.....	46	2.30	7	0.35	.....	.....	.....	.....	4	0.20	43	2.15	1	.....	.....	3
Kidsgrove	14,670	.....	.....	13	0.88	12	0.82	.....	.....	.....	.....	15	1.02	27	1.84	.....	.....	.....	.....
Leek	19,470	.....	.....	60	3.08	9	0.46	.....	.....	2	0.10	7	0.36	12	0.61	.....	.....	1	.....
Lichfield	8,652	.....	.....	12	1.38	16	1.85	.....	.....	1	0.11	.....	.....	1	0.11	.....	.....	.....	1
Newcastle	61,200	.....	.....	107	1.75	19	0.31	10	0.16	1	0.01	13	0.21	62	1.01	5	2	.....	4

URBAN—continued.

District.	Estimated Population at the middle of 1936 for calculating rates.	Small-pox		Scarlet Fever		Diphtheria		Enteric Fever		Puerperal Fever		Erysipelas		Pneumonia		Cerebro-spinal Fever Cases	Poliomyelitis Cases	Leishmaniasis Cases	Puerperal Pyrexia Cases
		Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate				
Rowley Regis	43,010	.....	.....	71	1.65	58	1.35	.....	.....	1	0.02	14	0.32	51	1.18	.....	1	.....	4
Rugeley	7,568	.....	.....	4	0.53	1	0.13	.....	.....	.....	.....	.....	.....	1	0.13	.....	.....	.....	.....
Sedgley	20,060	.....	.....	39	1.94	46	2.29	1	0.05	.....	.....	12	0.60	59	2.94	.....	.....	.....	6
Stafford	31,070	.....	.....	69	2.22	10	0.32	3	0.09	1	0.03	7	0.22	51	1.64	2	.....	.....	4
Stone	6,385	.....	.....	5	0.78	4	0.62	.....	.....	.....	.....	3	0.47	1	0.15	.....	.....	.....	.....
Tamworth	12,000	.....	.....	42	3.50	19	1.58	.....	.....	1	0.08	6	0.50	21	1.75	.....	.....	.....	1
Tettenhall	6,669	.....	.....	14	2.10	5	0.75	.....	.....	.....	.....	2	0.30	6	0.90	.....	.....	.....	.....
Tipton	36,120	.....	.....	99	2.74	87	2.41	1	0.03	.....	.....	32	0.88	90	2.49	.....	.....	.....	6
Uttoxeter	6,674	.....	.....	9	1.35	18	2.70	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Wednesbury	32,830	.....	.....	94	2.86	34	1.03	5	0.15	.....	.....	15	0.45	62	1.89	2	.....	.....	3
Wednesfield...	11,700	.....	.....	47	4.02	11	0.94	1	0.08	1	0.08	2	0.17	21	1.79	.....	.....	.....	2
Willenhall	27,650	.....	.....	79	2.86	20	0.72	.....	.....	1	0.03	13	0.47	34	1.23	.....	.....	.....	2

RURAL

District.	Estimated Population at the middle of 1936 for calculating rates.	Small-pox		Scarlet Fever		Diphtheria		Enteric Fever		Puerperal Fever		Erysipelas		Pneumonia		Cerebro-spinal Fever Cases	Polio-myelitis Cases	Enecephalitis Cases	Puerperal Pyæmia Cases
		Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate				
Cannock	21,330	.....	.....	90	4.22	14	0.65	.....	.....	1	0.04	16	0.75	32	1.50	1	.....	.....	2
Cheadle	30,130	.....	.....	91	3.02	21	0.69	1	0.03	1	0.03	14	0.46	61	2.02	2	.....	.....	3
Leek	15,830	.....	.....	3	0.19	1	0.06	.....	.....	.....	.....	3	0.19	11	0.69	.....	.....	.....	1
Lichfield	31,260	.....	.....	120	3.84	35	1.12	.....	.....	2	0.06	14	0.45	33	1.05	1	.....	.....	1
Newcastle	16,440	.....	.....	17	1.03	10	0.61	1	0.06	.....	.....	8	0.48	18	1.09	1	.....	.....	1
Seisdon	15,380	.....	.....	32	2.08	4	0.26	.....	.....	2	0.13	6	0.39	4	0.26	.....	.....	.....	3
Stafford	13,190	.....	.....	32	2.42	9	0.68	.....	.....	.....	.....	1	0.07	9	0.68	.....	.....	.....	1
Stone	12,220	.....	.....	37	3.03	13	1.06	.....	.....	.....	.....	1	0.08	10	0.82	.....	.....	.....	1
Tutbury	11,770	.....	.....	31	2.63	14	1.19	1	0.08	1	0.08	3	0.25	1	0.08	.....	.....	.....	-
Uttoxeter	9,650	.....	.....	32	3.31	5	0.52	.....	.....	1	0.10	1	0.10	4	0.41	.....	.....	.....	1

Maternity and Infant Welfare

Particulars relating to the work of the Infant Welfare Centres and Ante-natal Clinics during the year ended 31st December, 1936.

District.	Centre.	Sessions.	Average Monthly No. on books during 1936.			No. of Attendances for First Time.			Total No. of Attendances.			No. of Sessions.
			Expectant Mothers.	Children.		Expectant Mothers.	Children.		Expectant Mothers.	Children.		
				Under one year.	Between 1 and 5 years.		Under one year.	Between 1 and 5 years.		Under one year.	Between 1 and 5 years.	
URBAN.												
ALDRIDGE	Aldridge	Weekly	—	48	89	—	52	61	—	980	1534	52
	Pelsall	—	4	42	99	17	52	6	34	685	1028	47
	Rushall	—	—	40	75	—	32	12	—	606	628	49
AMBURCOKE	Amburcoke	—	—	37	54	—	42	14	—	807	553	52
BIDDLEPH	Biddleph	Twice Weekly	17	70	198	37	98	64	162	1121	1464	102
BIRMINGHAM	Brierley Hill	Weekly	—	94	101	—	102	51	—	1449	925	47
	Special Ante-Natal Clinic	—	55	—	—	178	—	—	598	—	—	46
	Brockmoor	—	—	35	64	—	51	24	—	685	659	59
	Kingwinford	—	—	34	97	2	56	31	2	590	741	47
	Pennett	—	—	66	128	—	93	46	—	1189	1010	60
BIRMINGHAM	Quarry Bank	—	28	73	67	113	35	7	207	1273	630	52
	Weekley	—	—	84	174	—	77	14	—	979	1161	48
	Brownhills	—	—	71	84	1	94	33	3	1049	781	46
	Special Ante-Natal Clinic	Fortnightly	30	—	—	112	—	—	261	—	—	27
	Norton Canes	Weekly	3	42	37	13	53	73	24	829	827	48
BIRMINGHAM	Walsall Wood	—	16	44	87	59	76	23	131	875	1317	53
	Darlaston	Twice Weekly	—	212	270	—	207	104	—	2714	1820	100
	Special Ante-Natal Clinic	Weekly	30	—	—	103	—	—	312	—	—	46
BIRMINGHAM	Harristead	—	6	26	51	24	35	9	57	499	422	48
	Kidsgrove	—	—	53	65	—	81	55	—	978	702	47
	Special Ante-Natal Clinic	—	26	—	—	118	—	—	383	—	—	50
	Taika	—	—	40	118	—	51	19	—	847	693	49
	Leek	—	—	83	118	—	126	45	—	1325	807	48
LEEK	Special Ante-Natal Clinic	Monthly	4	—	—	17	—	—	29	—	—	11
	Lichfield	Weekly	1	48	87	5	66	42	7	879	1085	51
RUGSEY	Rugseley	—	—	58	95	13	82	48	26	1009	1254	46
	Special A.N. Clinic (as from 12.3.36)	Fortnightly	16	—	—	50	—	—	124	—	—	20
	Lower Gornal	Weekly	—	45	102	2	68	25	3	911	1158	49
SEDGLEY	Sedgley	—	3	79	125	13	113	51	42	1339	1144	47
STONE	Stone	—	—	55	137	—	67	28	—	961	1361	46
TAMWORTH	Tamworth	Weekly	—	40	71	1	56	17	1	849	900	51
	Bochall	Fortnightly	—	26	62	—	43	18	—	330	575	24
TETTERHALL	Tetterhall	Weekly	7	29	50	20	44	29	49	457	323	59
UTTOXETER	Uttoxeter	—	4	39	113	21	58	28	42	552	810	50
WEDNESBURY	Wednesfield	—	1	82	80	5	134	25	25	1795	1083	47
	Special A.N. Clinic (as from 16.3.36)	Fortnightly	20	—	—	101	—	—	216	—	—	20
	Portobello	Weekly	1	64	67	9	89	14	21	982	757	48
WILKENSALL	Short Heath	—	1	79	58	6	56	11	36	881	839	49
	Willenhall	Twice Weekly	5	142	145	27	197	46	60	1935	1784	100
	Special Ante-Natal Clinic, changed to twice weekly, 8.5.36	—	130	—	—	368	—	—	1268	—	—	79
RURAL.												
BIRMINGHAM	Brewod	Twice Monthly	—	32	82	—	43	13	—	376	601	25
	Cheslyn Hay	—	4	28	22	12	21	10	28	165	193	22
	Essington	Monthly	—	12	30	—	19	11	—	101	128	12
CANNOCK	Featherstone	Twice Monthly	9	37	90	37	56	42	56	311	436	23
	Great Wyrley	—	—	62	34	—	33	13	—	293	363	24
	Huntington	—	—	41	35	—	36	15	—	250	176	23
CANNOCK	Penkridge	—	5	15	56	18	23	10	35	211	405	24
	Shareshill	Monthly	—	8	30	—	7	4	—	40	95	12
	Caslon (closed 21.2.36)	—	—	—	—	—	1	—	—	2	10	2
CHESHAM	Chesham	Weekly	—	58	92	1	61	18	2	800	902	52
	Cheddleton	—	—	20	41	—	36	27	—	317	507	50
	Endon	—	2	64	85	15	83	23	17	815	469	45
LEEK	Longnor	—	—	14	30	2	19	11	8	189	463	51
	Alrewas	Twice Monthly	—	14	28	1	13	4	1	94	244	24
	Armitage	—	4	17	56	14	14	8	29	165	339	22
LICHFIELD	Chasetown	Weekly	—	79	73	—	44	23	—	769	1042	51
	Special Ante-Natal Clinic	Monthly	16	—	—	50	—	—	107	—	—	12
	Faxley (opened 9.3.36)	Weekly	—	20	31	—	37	39	—	409	343	39
LICHFIELD	Shenstone	Monthly	1	9	31	3	13	2	5	63	116	12
	Whittington	—	—	11	25	2	11	9	4	47	160	12
	Audley	Weekly	—	40	102	—	39	19	—	477	698	46
NEWCASTLE	Halmerend	—	1	27	79	4	28	14	5	226	313	43
	Madeley	—	—	34	83	2	31	15	3	542	734	48
	Codsall	—	—	25	32	3	27	5	3	384	431	47
SPRINTON	Kinner	—	3	28	74	13	36	20	37	524	854	49
	Wombourne	—	3	29	30	17	36	8	35	337	318	50
	Berkswich (opened 19.2.36)	Fortnightly	—	55	31	—	39	48	—	200	318	22
STAFFORD	Great Haywood	Weekly	—	11	37	—	14	3	—	225	715	48
STONE	Evieshall	—	1	23	40	6	39	31	10	296	407	50
TUTBURY	Barton-under-Needwood	Fortnightly	—	18	32	—	17	7	—	167	241	23
	Tutbury (opened 28.2.36)	Weekly	1	10	32	4	43	36	10	332	269	43
			458	2778	4431	1659	3423	1552	4568	41469	43155	3008

Maternity and Infant Welfare

L—LEGITIMATE.
I—ILLEGITIMATE.

Particulars relating to the work of the Health Visitors during the year ended 31st December, 1936.

- (8) Also serve parts of *Brerley Hill* U.D.
(9) Also H.V. also serve parts of *Lichfield* R.D.
(10) Also serve parts of *Brerley Hill* U.D. and *Lichfield* R.D.
(11) Also H.V. also serve parts of *one* in *Worcestershire*.
(12) Also serve parts of *Uttens* R.D.
(13) Two H.V.s, also serve parts of the *Isle*, *Stone*, and *Uttens* R.D.s.
(14) Two H.V.s, also serve parts of *Stone* R.D.
(15) Also serve parts for *Brerley Hill* U.D. and *Woodsfield* U.D.s.
(16) Two H.V.s, also serve parts of *Stone* R.D.
(17) Three H.V.s, also serve parts of the *Chasle*, *Newcastle*, and *Shalvey* R.D.s.
(18) Also serve parts of *Uttens* R.D.
(19) Also H.V. also serve parts of *Chasle* R.D.
(20) ————— *Talsbury* R.D.

STANDARD

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