ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1944.

To:-

1) The Mayor and Corporation of Stratford-upon-Avon.
2) The Chairman and Members of the Stratford-on-Avon Rural District Council.
3) The Chairman and Members of the Shipston-on-Stour Rural District Council.
4) The Chairman and Members of the Alcester Rural District Council.

I beg to submit herewith my Annual Report for the year 1944.

In accordance with Circular 49/45, the Annual Report is on similar lines to those which have been issued during the war period, with the addition that we have been asked to give a survey of the water supplies for the district.

BOROUGH OF STRATFORD-UPON-AVON.

Estimated Population - 13,420.

LIVE BIRTHS.		Male.	Female.	Total.
Legitimate	....	121	93	214
Illegitimate	....	11	16	27

Birth rate per 1,000 estimated population = 17.09

STILLBIRTHS.		Male.	Female.	Total.
Legitimate	....	4	4	8
Illegitimate	....	-	1	1

Rate per 1,000 (live and stillbirths) = 36.00

DEATHS. Male - 84. Female - 81. Total = 165.

Death rate per 1,000 estimated population = 12.03.

DEATHS FROM PUERPERAL CAUSES.

Puerperal Sepsis ..... Nil.
Other Puerperal causes .. Nil.

DEATH RATES OF INFANTS UNDER ONE YEAR.

All infants per 1,000 live births 32.00

Deaths from Measles (All ages) ..... One.
" " Whooping Cough (All ages) .... Nil.
" " Diarrhoea (under 2 years) .... Nil.
" " Cancer (All ages) ..... Twenty-seven.

RURAL DISTRICT OF STRATFORD-ON-AVON.

Estimated Population - 16,350.

LIVE BIRTHS.		Male.	Female.	Total.
Legitimate	....	137	121	258
Illegitimate	....	10	11	21

Birth rate per 1,000 estimated population = 17.06

STILLBIRTHS.		Male.	Female.	Total.
Legitimate		3	5	8
Illegitimate	....	-	2	2

Birth rate per 1,000 (live and stillbirths) = 34.6

DEATHS. Male - 108. Female - 87. Total = 195

Death rate per 1,000 estimated population = 11.09.

DEATHS FROM PUERPERAL CAUSES.

Puerperal Sepsis ..... Nil.
Other puerperal causes .. Nil.

DEATH RATE OF INFANTS UNDER ONE YEAR.

All infants per 1,000 live births ..... 30.5.

Deaths from Measles (All ages) ..... One
" " Whooping Cough (All ages)..... Nil
" " Diarrhoea (under 2 years) .... Nil.
" " Cancer (All ages) ..... Thirty-four.

RURAL DISTRICT OF SHIPSTON-ON-STOUR.

Estimated Population - 7,900.

LIVE BIRTHS.	Male.	Female.	Total.
Legitimate	73	49	122
Illegitimate	14	11	25

Birth rate per 1,000 estimated population = 18.4

STILLBIRTHS.	Male.	Female.	Total
Legitimate	1	1	2
Illegitimate	-	-	-

Rate per 1,000 (live and stillbirths) = 14.5.

DEATHS. Male - 57. Female - 58. Total = 115.

Death rate per 1,000 estimated population = 14.5

DEATHS FROM PUERPERAL CAUSES.

Puerperal Sepsis ..... Nil.
Other Puerperal causes ..... Nil.

DEATH RATE OF INFANTS UNDER ONE YEAR.

All Infants per 1,000 live births 68.7

Deaths from Measles (All ages) ..... Nil.
" " Whooping Cough (All ages) ..... Nil.
" " Diarrhoea (under 2 years) ..... One.
" " Cancer (All ages) ..... Fourteen.

RURAL DISTRICT OF ALCESTER.

Estimated Population - 12,220.

LIVE BIRTHS.	Male.	Female.	Total.
Legitimate	94	116	210
Illegitimate	7	12	19

Birth Rate per 1,000 estimated population = 18.7

STILLBIRTHS.	Male.	Female.	Total.
Legitimate	3	1	4
Illegitimate	-	-	-

Rate per 1,000 (live and stillbirths) = 17.1

DEATHS. Male - 75. Female - 65. Total = 140.

Death rate per 1,000 estimated population = 11.4.

DEATHS FROM PUERPERAL CAUSES.

Puerperal Sepsis ..... Nil.
Other Puerperal causes ..... Nil.

DEATH RATE OF INFANTS UNDER ONE YEAR.

All infants per 1,000 live births 29.1

Deaths from Measles (All ages) ..... Nil.
" " Whooping Cough (All ages) ..... Nil.
" " Diarrhoea (under 2 years) ..... Two.
" " Cancer (All ages) ..... Twenty-one.

NOTIFIABLE DISEASES (AGE GROUPS).

BOROUGH OF STRATFORD-UPON-AVON.

DISEASES.	0-1	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	Over 65	Age un-k'n.	To-tal.	Adm. to Hosp.
Scarlet Fever.		1		1	1	14	3	3	1				1	25	22
Whooping Cough	3	2		4		3								12	
Pneumonia			2			2		2	6	4	8	3		27	4
Erysipelas								1			3	3		7	
Puerperal Pyrexia.									1					1	1
Cerebro-Spinal Fever.								1						1	1
Diphtheria.								1	3	1			1	6	6
Dysentry								1	3	1				5	
Ophthalmia Neonatorum													1	1	
Measles	15	26	42	48	60	239	22	5	16	4	2		42	521	4
Malaria									1						

The case of Malaria was a member of H.M.Forces and was contracted aborad.

NOTIFIABLE DISEASES (AGE GROUPS)

THE RURAL DISTRICT OF STRATFORD-ON-AVON.

DISEASE.	0-1	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	Over 65	Age unk'n.	Total.	Adm. to Hosp.	Died
Scarlet Fever	1		2	2		16	5	5	3	1				35	34	
Whooping Cough	3		1	2	1	8							2	17		
Pneumonia	1				1	3	1	1	11	3	9	5		35	11	1
Diphtheria				1	1	1			3				1	7	7	
Dysentry								1	6	3					10	
Puerperal Pyrexia									1					1	1	
Cerebro Spinal Fever								1	1					2	2	
Erysipelas									1	1	3		1	6	2	
Measles	3	8	15	10	11	91	26	1	10		1		21	197	7	
Malaria									8	2			12	22	1	

The cases of Malaria were H.M.Forces and was contracted abroad.

THE RURAL DISTRICT OF SHIPSTON-ON-STOUR.

DISEASE	0-1	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	Over 65	Age unk'n	Total	Adm. to Hosp.	Died
Scarlet Fever			1	1	2	10	1	4	1	1	1			22	21	
Whooping Cough	1					2	1							4		
Pneumonia	1				1	2			1	2	4			11	1	2
Diphtheria	1								1				2	4	4	
Puerperal Pyrexia									3					3	2	
Erysipelas						1								1		
Cerebro-Spinal Fever									1					1		
Measles								1						1	1	

NOTIFIABLE DISEASES (AGE GROUPS).

THE RURAL DISTRICT OF ALCESTER.

DISEASE	0-1	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	Over 65	Age unk'n	Total	Adm. to Hosp.	Died
Scarlet Fever				2		7	3	3	2	2				19	19	
Whooping Cough	3	2	2	6	6	14	2							35		
Pneumonia	4	1		3		5			1	3	5	10	1	33		2
Diphtheria				1			2	1	1					5	4	
Puerperal Pyrexia									2				1	3	3	
Cerebro Spinal Fever			1											1	1	
Erysipelas											2	1		3		
Measles			2	1	2	7	1	4						17		

During the year 110 of His Majesty's Forces were treated in the Isolation Hospital, Stratford-on-Avon.

The following pathological specimens were submitted for examination during the year :-

Throat Swabs for Diphtheria Bacilli	-	231
Sputum etc. for Tubercle Bacilli	-	52
Smear for gonococci	-	1
Blood for Widals Reaction	-	1
Faeces examination for Dysentry	-	3
Chemical Analysis of Water	-	44
Bacteriological Analysis of Water	-	16
Chemical Analysis of Sewage Effluents	-	16

IMMUNISATION AGAINST DIPHTHERIA.

The percentage of children between the ages of 5-15 immunised in districts at the end of 144 was :-

Stratford-on-Avon Borough	94.7
Stratford-on-Avon Rural District	85.
Shipston-on-Stour Rural District	87.2
Alcester Rural District	89.9

SCHOOL CLOSURES.

The following school was closed during the year 1944 :-

Name of School.	Reason for Closure,	Period of Closure.
Newbold-on-Stour.	Scarlet Fever.	4.2.44 to 14.2.44.

TUBERCULOSIS.

The following tables show (1) the incidence of Tuberculosis and (2) death rate from Tuberculosis :-

BOROUGH OF STRATFORD-UPON-AVON.

e riods	New Cases.				Deaths.			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M	F	M	F	M	F	M	F
0-1								
1-5								
5-10								
10-15								
15-20		1						
20-25	5							
25-35	3			1				
35-45	4	1						
45-55								
55-65	1							
65 & upw'ds.								
Age Unk'n	1							
Total	14	2		1				

RURAL DISTRICT OF STRATFORD-ON-AVON.

Age Period	New Cases.				Deaths.			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M	F	M	F	M	F	M	F
0-1								
1-5								
5-10								
10-15								
15-20	1				1			
20-25	3							
25-35	6	4				1		
35-45	1	1			1			
45-55		2						
55-65								
65 & upw'ds.								
Age Unk'n.	1							
Total	12	7			2	1		

Ages	Pulmonary		Non-Pulmonary		Total
	M	F	M	F	
0-1					
1-5					
5-10					
10-15					
15-20					
20-25					
25-30					
30-35					
35-40					
40-45					
45-50					
50-55					
55 & over					
Unk'n					
Total	34	2			1

THE RURAL DISTRICT OF SHIPSTON-ON-STOUR.

Age Periods	New Cases.				Deaths.			
	Pulmonary		Non-Pulmonary.		Pulmonary		Non-Pulmonary.	
	M	F	M	F	M	F	M	F
0-1								
1-5								
5-10			1					
10-15								
15-20		2						
20-25	1	1	1	1				
25-35					2			
35-45					1			
45-55								
55-65					1			
65 & upw'ds.								
Total	1	3	2	1	4			

THE RURAL DISTRICT OF ALCESTER.

Age Periods.	New Cases.				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary		Non-Pulmonary.	
	M	F	M	F	M	F	M	F
0-1								
1-5				1				1
5-10								
10-15								
15-20	1	2				1		
20-25			1		1			1
25-35								
35-45					1			
45-55					1			
55-65								
65 & upw'ds.								
Total	1	2	1	1	3	1	-	2

CAUSES OF DEATH.

	Stratford Borough.		Stratford R.D.		Shipston R.D.		Alcester R.D.	
	M.	F.	M.	F.	M.	F.	M.	F.
Tuberculosis (resp.)	-	-	2	1	4	-	4	3
Tuberculosis (other).	-	-	1	-	1	-	-	-
Syphylitic Diseases	-	-	-	-	-	1	1	-
Influenza	1	1	3	1	-	3	-	1
Measles	1	-	1	-	-	-	-	-
Ac. Inf. enceph.	-	-	-	-	-	-	-	1
Cancer of (buc.cavity & oesophagus)	2	1	2	4	-	-	1	1
Cancer of stomach.	5	1	5	1	1	2	3	1
Cancer of breast.	-	3	-	2	-	2	-	4
Cancer of other sites.	8	7	13	7	7	2	5	6
Diabetes	1	-	-	1	-	-	-	1
Intracranial vascular lesions	16	13	11	9	3	8	4	10
Heart disease	18	17	23	25	15	19	26	19
Other circ. diseases.	7	6	3	4	4	3	4	3
Bronchitis	1	8	7	4	2	2	6	2
Pneumonia	5	3	3	9	4	1	3	-
Other resp. disdases.	1	1	3	-	-	3	1	1
Ulcer of stomach or duodenum.	1	-	1	-	-	-	-	-
Apendicitis	-	-	-	-	1	2	-	-
Diarrhoea (under 2 years).	-	-	-	-	1	-	2	-
Other digestive dis.	1	1	1	4	2	1	3	2
Nephritis.	1	3	6	1	1	3	3	1
Prem. birth.	3	1	1	2	1	1	1	-
	72	66	85	75	47	53	67	56

CAUSES OF DEATH (continued).

	Stratford Borough.		Stratford R.D.		Shipston R.D.		Alcester R.D.	
	M.	F.	M.	F.	M.	F.	M.	F.
Carried forward	72	66	85	75	47	53	67	56
Diphtheria	-	-	-	-	-	-	-	1
Con.Mal.birth injury.	-	3	2	-	2	1	1	2
Suicide	2	1	-	1	1	-	-	-
Road traffic accidents.	3	1	5	-	1	-	1	-
Other violent causes	2	2	2	1	2	-	-	1
All other causes	5	8	13	10	4	4	6	5
Totals	84	81	108	87	57	58	75	65

WATER SUPPLIES.

BOROUGH OF STRATFORD-UPON-AVON.

During the year 1944, the water supplies of the Borough and district have been satisfactory as regards quality and quantity. In two outlying areas, namely, at the Alcester Road (Miles Bush) and also Bishopton Hamlet, pressures have occasionally been low during hours of peak demand. Schemes are about to be carried out which will increase the pressures in these districts.

Quarterly bacteriological analyses have been made by me, and these have on all occasions proved highly satisfactory. A Mineral Analysis has been taken during the year and this shewed the water to be free from any tendency to plumbo-solvent action. The average total hardness of 8 parts per 100,000 indicates a comparatively "soft" water. In all other respects also the Mineral Analysis proved satisfactory.

With the exception of a few isolated farms and cottages, water is laid on to all dwelling houses in the Borough. The proportion without such direct supplies is estimated to be less than 1%.

Generally.

The water supplies of the Town are pumped from Artesian boreholes at three sites viz. Warwick Road, August Hill, and Alveston Hill respectively. During the war an emergency chlorinating plant was installed at each of these borehole pumping stations. At Snitterfield a supply from the upland surface gathering ground is held in reserve against emergency. The storage reservoir here has a capacity of 20 million gallons and the plant includes slow sand filters and chlorination equipment. This source of supply has been superseded by the new borehole and pumping station at August Hill constructed in 1943.

Bulk supplies are given to R.A.F. Stations at Snitterfield and Atherstone, and to the Stratford-upon-Avon Rural District Council for the Parishes of Clifford Chambers, Bearley, Luddington and the Hamlet of Bishopton.

RURAL DISTRICT OF SHIPSTON-ON-STOUR.

General Position.

The water supplies of the area during the year 1944, in the majority of cases were unsatisfactory as regards quantity. The drought of the two previous years had reduced the yield of all springs and wells and the "dry" winter had failed to replenish underground sources with the result that shortage of water for domestic purposes occurred early. Gradually, the position became acute and water had to be carted to several villages. In Shipston-on-Stour the town supply was restricted to two periods of two hours each per day during the worst period.

Temporary pipe lines were laid from new springs to augment existing supplies and provided some relief in certain villages though they did not entirely restore the supplies to normal.

Considerable difficulty was also experienced by farmers in the area. Milk production was seriously hampered by lack of water and as streams and pools dried up, the watering of cattle became a serious problem.

The quality of supplies for public use did not appear to be affected, but reports of the suspected contamination of private wells were received and dealt with.

Analysis of Water.

There are no systems in the area which require or receive treatment, and, except where water was under suspicion, no bacteriological analysis was made.

Plumbo-Solvency.

No supplies in the area are plumbo-solvent.

Action in respect of contamination.

No main public source of water was contaminated during the year. Four private wells became contaminated; two were treated satisfactorily and two were closed for domestic use. The method of treatment being the cleansing of the wells, deep ground chlorination and frequent pumping out.

Population supplied.

The percentage of dwellings supplied by standpipe or by direct connections in the areas where there are mains or piped supplies is :-

By direct connection - 45%
By standpipe - 55%

Conclusion.

Few of the villages have a really adequate supply of water according to modern standards, and the Council have under consideration a comprehensive water scheme for the supply of water to all parts of the area in need, and in addition, the modernising of all existing systems.

THE RURAL DISTRICT OF ALCESTER.

The supply of water to the piped areas of the district during the year was satisfactory both in quality and quantity. The pump wells supplying Bidford and Salford areas were very low and it almost became necessary for an additional supply available a mile down the valley to be utilised. Permission had already been given by the Ragley Estate for this but in the autumn with the increased rainfall the demand was able to be met without this recourse.

Alcester Water Co. supplying Alcester, Great Alne and Arrow, were able to meet all demands.

In Studley, which is supplied by the East Worcestershire Waterworks Co. there was plenty of water available.

All piped supplies are analysed chemically and bacteriologically, quarterly.

None of the waters have plumbo-solvent action.

The two gathering grounds for public supplies obtained in the district have been safeguarded against pollution, particularly that owned by the Council, by fencing 4 acres around the pump well.

Alcester. Proportion of Dwelling houses supplied from public water mains (a) direct to houses 43½%
(b) by means of standpipes 55%

Proportion of population supplied from public water mains (a) direct to houses 38%
(b) by means of standpipes 55.6%

Studley. Proportion of dwelling houses supplied from public water mains (a) direct to houses 70%
(b) by means of standpipes 25%

Proportion of population supplied from public water mains (a) direct to houses 66%
(b) by means of standpipes 29%

Bidford. Proportion of dwelling houses supplied from public water mains (a) direct to houses 55%
(b) by means of standpipes 1%

Proportion of population supplied from public water mains (a) direct to houses 41%
(b) by means of standpipes 1%

With regard to surface wells in this district these are in the drift overlying marl and are generally shallow. During the dry period a number of them ceased to yield.

THE RURAL DISTRICT OF STRATFORD-ON-AVON.

Drought.

Drought during the year caused a serious shortage in several of the Parishes, namely :-

1. Alderminster. The fall in the yield of the shallow wells in this parish was so pronounced that it was found necessary to cart water twice weekly to three galvanised tanks which are sited in various parts of the village.

2. Admington. The yield of the springs at Upper Larkstoke seriously declined, and during the months of July, August, September and October, it was found necessary to regulate valves during the night, so that a reserve could be built up in the reservoir to serve the village during the day time.

3. Loxley. The yield of the springs which supply this village became so small that it was found necessary to resort to pumping water from the emergency supply in a well which had been sunk in the earlier months of the year 1944.

4. Kineton. Despite the sinking of a borehole with an approximate daily yield of 40,000 gallons, the position at Kineton during the latter part of the year was very difficult. This was due to the additional inhabitants, including evacuees, and troops.

5. Bearley. Owing to the difficulty of supplying this village from the northern water supply, it was found necessary to obtain a supply from the R.A.F. Station at Snitterfield, which in turn was fed from the Stratford-upon-Avon Borough mains.

6. Long Marston and Dorsington. These parishes, which are

supplied in bulk from the Evesham Rural District, experienced great shortage during the latter end of the year, due to the failure of the springs in the Evesham Rural District.

Extensions.

1. Luddington. The extension of the main from the Stratford-upon-Avon Borough boundary to Luddington was completed during the year. This meant the laying of approximately 1¼ miles of asbestos cement pipes, and the supply was given through 10 standpipes fixed along the Luddington Road and in the village of Luddington. This method was instituted because the Borough Council were unable to supply more than approximately 2,500 gallons per day.

New Works.

1. Kineton. The new borehole was brought into operation in April. The new pumping plant is now in operation.

2. Henley-in-Arden. This area is supplied from the mains of the Birmingham Corporation, but some difficulty has been experienced during the past year, due to the fact that the storage reservoir at Liveridge Hill has proved to be unsatisfactory. Much water has been lost through a subsidence affecting the stability of the structure. It was, therefore, found necessary to depend entirely on break pressures with the operation of a "break pressure valve" at Liveridge Hill, in order to prevent any fracturing of the old main and services in Henley. These will have to be renewed as soon as the supply situation permits.

General.

The number of houses within this Rural District which are connected to a piped supply or derive water from standpipes amounts to 35% of the whole.

I have the honour to remain, Ladies and Gentlemen,

Your obedient Servant,

L. L. FYFE,

Medical Officer of Health.