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Contributors

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TO THE CHAIRMAN AND MEMBERS OF THE PUBLIC HEALTH AND HOUSING COMMITTEE OF THE SALOP COUNTY COUNCIL.

GENTLEMEN,

I have the honour to present my Annual Report for 1919.

The delay in the issue of this Report is due mostly to the fact that several of the district reports were not received until the beginning of 1921.

The financial stringency and the shortage of labour has not only prevented the carrying out of any extensive sanitary schemes, but has also much impeded the ordinary routine work of improvement and repair.

Under such circumstances one's attention is naturally directed to teaching the people how they can best utilise the facilities they already possess for maintaining health. This instruction can be given by sanitary inspectors, health visitors, district nurses, school nurses, and medical officers.

The health of the people depends mainly on regular and satisfactory exercise under good conditions and a proper supply of food. Biological investigations into food during the last few years have resulted in knowledge of the utmost importance to the growth and development of the human race and it behoves every sanitary authority to see that this knowledge is placed at the disposal of the people in a practical and convincing manner.

I am, Gentlemen,

Your obedient Servant,

JAMES WHEATLEY.

PUBLIC HEALTH DEPARTMENT,
COUNTY BUILDINGS, SHREWSBURY,
March, 1921.

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GENERAL STATISTICS.

Population.—The Population of the Administrative County in 1901 was 239,783, and in 1911, 246,307.

The Registrar-General's estimate of the civil population for 1919 is 230,796. This is used for calculating all death-rates. An estimated population of 240,421 is used for birth-rates only

Marriages.—The number of marriages in the Registration County for 1919 was 2,387, compared with 1,718 for 1918, 1,496 in 1917, 1,641 in 1916, and 2,020 in 1915, which was the highest number during the previous 20 years.

Births.—The total number of births in the Administrative County was 4,264, giving birth-rate of 17.73, compared with 17.73 in 1918, 16.63 in 1917, and 18.99 in 1916.

Deaths.—The number of deaths after making corrections for non-residents dying in the County and persons belonging to the County dying outside, was 3,441.

The death-rate was 14.91, compared with 17.18 in 1918, 14.12 in 1917, and 14.26 in 1916

Year.	Births.	Deaths.	Natural Increase.
1913	5245	3012	2233
1914	5205	3556	1649
1915	4917	3532	1385
1916	4682	3231	1451
1917	4059	3232	827
1918	4283	3702	581
1919	4264	3441	823

	Birth-rates.			Death-rates.		
	Urban Districts.	Rural Districts.	Whole County.	Urban Districts.	Rural Districts.	Whole County.
1912	22.2	21.5	21.8	13.8	12.5	13.1
1913	21.4	20.8	21.1	12.7	11.6	12.1
1914	21.01	20.76	20.88	15.11	13.52	14.26
1915	19.61	19.72	19.67	16.09	14.41	15.19
1916	19.39	18.51	18.99	14.99	13.63	14.26
1917	17.14	16.19	16.63	14.31	13.93	14.12
1918	17.15	18.24	17.73	18.25	16.25	17.18
1919	17.69	17.77	17.73	15.40	14.48	14.91

This table gives the material for the comparison of birth-rates and death-rates in war years with pre-war times. The high death-rate of 1918 was principally due to influenza, and this disease also considerably affected the rate for 1919. Omitting the year 1918, the average of the death-rates of the war years and 1919 was 15% in excess of the average for the years 1912-13

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY OF SALOP, 1919.

CAUSES OF DEATH.	Sex.	AGGREGATE OF URBAN DISTRICTS.									AGGREGATE OF RURAL DISTRICTS.								
		All Ages.	0—	1—	2—	5—	15—	25—	45—	65—	All Ages.	0—	1—	2—	5—	15—	25—	45—	65—
ALL CAUSES	M	812	91	19	28	28	34	98	189	325	903	95	21	18	33	39	94	161	442
	F	846	56	15	23	38	39	96	180	399	880	74	17	29	31	51	107	155	416
1 Enteric Fever	M	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..
	F	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..
2 Small-pox	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3 Measles	M	4	1	1	1	1	..	..	..	..	3	1	..	..	..	2	..	..	..
	F	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..
4 Scarlet Fever	M	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..
	F	1	..	..	1	..	..	..	..	..	5	..	..	1	3	1	..	..	..
5 Whooping Cough	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F	2	2	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..
6 Diphtheria and Croup ..	M	3	..	..	1	1	1	..	..	..	10	1	..	1	8	..	..	..	..
	F	7	..	..	3	3	1	..	..	..	4	..	..	1	2	1	..	..	..
7 Influenza	M	88	2	4	8	7	7	24	22	14	107	5	2	6	6	7	31	23	27
	F	98	6	6	3	5	10	25	24	19	111	2	2	5	7	17	37	20	21
8 Erysipelas	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9 Pulmonary Tuberculosis ..	M	52	..	1	..	..	10	15	19	7	42	..	1	..	1	14	19	6	1
	F	42	..	..	1	4	14	18	3	2	35	..	..	..	3	9	17	6	..
10 Tuberculous Meningitis ..	M	3	..	..	1	..	2	..	..	..	5	..	..	1	3	1	..	..	..
	F	..	..	..	..	..	..	..	..	..	6	..	..	3	1	1	1	..	..
11 Other Tuberculous Diseases ..	M	3	1	..	..	..	..	1	1	..	6	..	..	..	..	3	1	1	1
	F	11	..	..	2	..	2	4	2	1	10	1	..	..	..	5	2	2	..
12 Cancer, Malignant Disease ..	M	50	..	..	..	..	..	4	20	26	76	..	..	..	1	1	3	21	50
	F	95	..	..	..	..	..	10	43	42	101	..	..	..	..	..	7	44	50
13 Rheumatic Fever	M	3	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..
	F	..	..	..	..	..	..	..	..	..	5	..	..	..	2	2	1	..	..
14 Meningitis	M	5	2	..	1	1	..	..	1	..	4	1	2	1	..	..	..	..	..
	F	2	1	..	..	1	..	..	..	..	3	..	1	2	..	..	..	..	..
15 Organic Heart Disease ..	M	101	..	..	..	3	5	10	26	57	88	..	..	..	..	2	4	15	67
	F	104	..	..	..	3	1	8	21	71	129	..	..	1	..	2	7	23	96
16 Bronchitis	M	68	10	3	1	..	..	2	11	41	65	8	2	..	1	1	1	9	43
	F	72	1	1	1	..	..	..	12	57	49	4	1	..	..	..	1	3	40
17 Pneumonia (all forms) ..	M	54	11	8	5	1	1	13	5	10	49	8	4	5	2	1	7	8	14
	F	34	2	6	3	5	2	2	4	10	46	6	9	5	4	2	3	4	11
18 Other Respiratory Diseases	M	11	..	..	1	..	..	1	3	6	5	1	1	..	..	..	..	2	1
	F	15	1	..	1	1	1	..	8	3	7	..	..	..	1	..	1	3	2
19 Diarrhœa, &c.	M	8	..	1	2	..	..	1	2	2	11	4	1	..	..	..	1	..	5
	F	12	5	..	..	1	..	..	2	4	16	6	..	..	..	1	..	3	6
20 Appendicitis and Typhlitis ..	M	4	..	..	..	1	..	..	2	1	6	..	..	..	1	1	3	1	..
	F	5	..	..	..	1	..	..	1	3	7	..	..	1	3	1	1	..	1
21 Cirrhosis of Liver	M	6	..	..	..	..	..	..	3	3	5	..	..	..	..	..	..	4	1
	F	1	..	..	..	..	..	..	1	..	2	..	..	..	..	..	..	2	..
21A Alcoholism	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22 Nephritis and Bright's Disease	M	26	..	..	..	..	..	1	12	13	25	..	..	1	1	..	2	5	16
	F	25	..	..	..	5	..	3	5	12	12	..	..	..	..	..	3	..	9
23 Puerperal Fever	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F	2	..	..	..	..	..	2	..	..	3	..	..	..	..	2	1	..	..
24 Parturition, apart from Puerperal Fever	M	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F	6	..	..	..	..	1	4	1	..	8	..	..	..	..	1	7	..	..
25 Congenital Debility, &c. ..	M	44	43	..	..	1	..	..	..	..	39	38	1	..	..	..	..	..	..
	F	26	25	..	..	1	..	..	..	..	35	34	1	..	..	..	..	..	..
26 Violence, apart from Suicide	M	33	1	..	5	6	2	5	7	7	31	1	4	2	2	3	3	10	6
	F	19	..	1	6	1	2	1	2	6	15	1	1	4	2	1	..	1	5
27 Suicide	M	7	..	..	..	..	..	1	4	2	9	..	..	..	..	1	2	4	2
	F	4	..	..	..	..	1	2	1	..	2	..	..	..	..	..	2	..	..
28 Other defined Diseases ..	M	230	19	1	2	4	5	19	49	131	303	26	3	1	5	2	17	43	206
	F	253	13	1	2	7	4	16	42	168	256	19	2	5	1	4	13	38	174
29 Causes ill-defined or unknown	M	9	1	..	..	..	..	1	2	5	12	1	..	..	..	..	..	9	2
	F	10	..	..	..	..	..	1	8	1	10	..	..	1	1	1	..	6	1

CAUSES OF DEATH IN ADMINISTRATIVE AREAS IN THE COUNTY OF SALOP, 1919.

Causes of Death.	Bishop's Castle M.B.		Bridgnorth M.B.		Church Stretton U.D.		Dawley U.D.		Ellesmere U.D.		Ludlow M.B.		Market Drayton U.D.		Newport U.D.		Oakengates U.D.		Oswestry M.B.		Shrewsbury M.B.		Wellington U.D.		Wem U.D.		Wenlock M.B.		Whitchurch U.D.		Total U.D.	
CIVILIANS ONLY.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ALL CAUSES	11	14	48	39	14	7	50	48	18	19	41	56	37	41	22	27	76	74	85	90	214	241	51	40	27	14	84	96	34	40	812	846
1 Enteric Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2 Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3 Measles	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	4	..
4 Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
5 Whooping Cough	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	2
6 Diphtheria and Croup ..	..	..	..	..	..	..	..	1	..	..	..	..	2	4	..	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	3	7
7 Influenza	..	..	12	10	..	1	2	3	..	1	..	6	4	6	..	3	11	13	9	14	35	21	4	3	2	1	6	7	3	9	88	98
8 Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9 Pulmonary tuberculosis ..	..	1	1	2	5	1	3	2	2	..	5	8	3	1	..	2	4	1	7	2	10	11	5	4	1	..	5	5	1	2	52	42
10 Tuberculous Meningitis ..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	3	..
11 Other tuberculous diseases	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	1	4	1	..	..	..	1	3	..	..	3	11
12 Cancer, malignant disease	1	2	4	6	1	..	2	5	1	1	..	5	3	3	..	4	4	7	4	8	14	32	6	3	..	2	7	12	3	5	50	95
13 Rheumatic Fever	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	3	..
14 Meningitis	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	2	1	..	1	1	..	..	..	..	..	..	..	5	2
15 Organic heart disease ..	3	3	5	2	..	1	3	4	4	11	3	2	4	6	5	2	8	8	11	11	26	26	4	10	4	1	13	13	8	4	101	104
16 Bronchitis	1	..	4	5	..	1	11	7	1	..	2	4	3	6	4	2	7	4	5	6	7	25	4	2	..	1	13	7	6	2	68	72
17 Pneumonia (all forms) ..	2	1	2	1	1	..	6	4	1	..	1	3	4	2	1	2	5	3	3	5	18	5	4	..	3	1	3	5	..	2	54	34
18 Other respiratory diseases	..	..	..	..	..	1	1	1	1	..	..	1	..	..	1	..	..	2	2	..	4	6	..	..	..	..	1	2	1	2	11	15
19 Diarrhoea, &c. (under 2 years	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	1	1	..	..	..	..	..	..	..	..	1	5
20 Appendicitis and typhlitis	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	1	..	1	1	..	..	..	..	..	1	..	1	..	..	4	5
21 Cirrhosis of liver	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	5	..	..	..	..	..	..	..	..	..	6	1
21a Alcoholism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22 Nephritis and Bright's Disease	..	..	..	..	..	..	1	..	..	..	1	2	3	3	..	..	3	4	7	6	4	5	2	2	..	..	4	3	1	..	26	25
23 Puerperal Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	2
24 Parturition, apart from puerperal fever ..	..	1	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	6
25 Congenital debility, &c. ..	..	..	3	2	..	..	3	3	..	1	3	1	3	..	1	..	3	2	4	6	15	6	2	..	2	..	3	3	2	2	44	26
26 Violence, apart from suicide	..	..	..	1	..	..	1	1	..	..	3	..	1	..	1	..	3	5	5	2	8	7	1	1	2	..	7	1	1	1	33	19
27 Suicide	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	6	2	..	..	..	..	..	1	..	..	7	4
28 Other defined diseases ..	4	5	15	8	7	2	16	12	5	5	18	22	7	10	7	8	24	20	22	24	54	80	17	14	13	7	20	32	8	11	237	260
29 Causes ill-defined or unknown	..	..	1	..	..	..	..	1	1	..	..	..	..	..	1	1	1	2	1	1	4	5	..	..	..	..	..	..	..	..	9	10
Special Causes (included above)																																
Cerebro-spinal fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	2
Deaths of Infants under 1 year																																
Total	..	..	4	5	1	..	8	4	1	1	3	1	4	1	2	1	9	8	8	11	29	16	7	..	2	..	11	5	2	3	91	56
Illegitimate	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	1	2	1	1	2	2	..	2	..	1	..	1	1	1	1	12	7
TOTAL BIRTHS	15	3	36	44	13	11	85	87	13	16	51	48	33	46	20	22	122	103	90	80	300	263	75	61	25	14	114	101	46	47	938	946
Legitimate	12	3	31	43	13	10	81	82	12	15	47	44	29	34	18	19	114	99	80	75	278	235	68	54	22	13	106	92	41	42	852	860
Illegitimate	3	..	5	1	..	1	4	5	1	1	4	4	4	12	2	3	8	4	10	5	22	28	7	7	3	1	8	9	5	5	86	86
POPULATION for Birth-rate ..	1287		5079		1475		7338		1649		5665		4740		2999		11755		10073		31018		7871		2063		13328		5797		112,137	
POPULATION for Death-rate ..	1235		4876		1416		7044		1583		5438		4550		2879		11284		9670		29778		7556		1980		12794		5565		107,648	

CAUSES OF DEATH IN ADMINISTRATIVE AREAS IN THE COUNTY OF SALOP, 1919.

Causes of Death.	Atcham R.D.		Bridgnorth R.D.		Burford R.D.		Chirbury R.D.		Church Stretton R.D.		Cleobury Mortimer R.D.		Clun R.D.		Drayton R.D.		Ellesmere R.D.		Ludlow R.D.		Newport (Salop) R.D.		Oswestry R.D.		Shifnal R.D.		Teme R.D.		Wellington R.D.		Wem R.D.		Whitchurch R.D.		Total R.D.	
Civilians only.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ALL CAUSES	162	134	62	46	8	7	24	14	35	31	44	52	40	45	57	59	62	45	66	64	39	47	110	129	45	55	14	12	76	62	49	67	10	11	903	880
1 Enteric Fever	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1
2 Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3 Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	2	1
4 Scarlet Fever	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	5
5 Whooping Cough	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
6 Diphtheria and Croup ..	1	2	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	1	..	..	..	2	..	1	1	10	4
7 Influenza	16	15	15	6	..	..	2	2	3	2	7	10	5	7	8	5	8	8	5	5	5	7	9	18	7	4	3	3	6	5	7	13	1	1	107	111
8 Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9 Pulmonary tuberculosis ..	8	4	2	2	..	1	..	..	1	..	1	5	2	1	4	3	..	1	6	2	3	6	6	3	1	4	1	1	4	1	2	1	1	..	42	35
10 Tuberculous Meningitis ..	1	1	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	1	..	1	2	..	..	5	6
11 Other tuberculous diseases	4	3	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1	1	..	..	..	1	..	1	..	..	..	1	..	1	..	..	6	10
12 Cancer, malignant disease	13	17	9	6	..	2	..	..	8	3	2	6	5	6	2	9	7	3	3	12	4	3	13	15	4	3	1	2	3	5	1	8	1	1	76	101
13 Rheumatic Fever	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
14 Meningitis	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	4	3
15 Organic heart disease ..	19	20	5	7	..	2	4	4	2	5	5	5	2	7	7	9	8	8	7	1	1	7	15	28	5	10	1	..	2	6	4	8	1	2	88	129
16 Bronchitis	6	11	5	1	1	1	4	..	4	1	9	..	1	3	3	2	5	2	3	6	4	3	4	5	2	5	1	1	9	1	4	7	..	..	65	49
17 Pneumonia (all forms) ..	8	6	2	3	..	..	2	..	..	5	3	3	1	1	5	4	2	..	4	3	1	4	6	4	6	3	1	..	7	7	1	2	..	1	49	46
18 Other respiratory diseases	1	1	1	..	1	1	..	1	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	2	..	..	..	..	..	..	1	1	..	..	5	7
19 Diarrhœa, &c. (under 2 years	..	1	..	..	..	..	..	2	1	..	1	..	..	1	..	..	..	1	1	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	5	6
20 Appendicitis and typhlitis	..	2	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	2	..	..	1	..	..	6	7
21 Cirrhosis of Liver	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	1	..	..	..	..	..	1	..	..	5	2
21A Alcoholism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22 Nephritis and Bright's disease	4	2	2	..	1	..	1	..	1	1	1	..	2	..	1	1	1	..	2	..	..	1	2	2	..	2	..	..	4	2	3	1	..	..	25	12
23 Puerperal Fever	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
24 Parturition, apart from puerperal fever ..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	8
25 Congenital debility, &c. ..	4	2	1	6	..	..	1	1	1	1	3	1	3	1	6	2	2	3	2	2	1	3	4	4	..	3	1	..	2	2	6	2	2	2	39	35
26 Violence, apart from suicide	4	2	1	1	..	..	2	..	1	..	1	1	2	..	..	2	2	2	3	3	3	..	5	2	1	..	1	..	3	2	2	..	..	..	31	15
27 Suicide	2	1	..	..	..	..	..	..	1	..	..	..	..	..	1	..	3	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	9	2
28 Other defined diseases ..	65	37	13	11	3	..	7	4	11	12	10	17	16	17	19	20	21	13	24	22	16	12	38	33	15	15	3	5	31	28	14	18	3	2	309	266
29 Causes ill-defined or unknown	4	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	2	..	..	1	4	1	1	..	..	1	..	1	..	..	..	12	10
Special Causes (included above)																																				
Cerebro-spinal Fever ..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Poliomyelitis	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Deaths of Infants under 1 year																																				
Total	11	5	4	8	..	..	2	3	1	2	4	3	9	3	11	3	5	6	7	5	3	5	13	15	1	5	1	1	11	5	10	3	2	2	95	74
Illegitimate	..	..	1	7	..	..	..	..	..	1	1	..	1	..	2	..	..	1	..	..	..	1	3	3	..	1	1	..	2	1	..	1	..	..	11	16
TOTAL BIRTHS	189	157	74	81	14	7	26	26	44	33	63	71	52	56	77	69	87	57	78	69	50	41	158	146	47	70	12	14	111	98	83	84	22	14	1187	1093
Legitimate	178	142	70	68	13	6	24	25	41	29	54	70	48	56	70	61	81	51	74	66	47	39	147	136	43	64	11	13	105	93	75	75	22	11	1103	1011
Illegitimate	11	15	4	13	1	1	2	1	3	4	9	1	4	..	7	8	6	6	4	3	3	2	11	10	4	6	1	1	6	5	8	5	..	3	84	82
POPULATION (for Birth-rate	20600		8425		1326		2995		4610		6905		6214		6942		7486		8871		5637		15210		9022		1658		11314		8986		2063		128284	
POPULATION (for Death-rate	19775		8088		1273		2875		4425		6629		5965		6664		7186		8516		5431		14601		8661		1592		10861		8626		1980		123148	

Illegitimate Births.

Year.	Number of Illegitimate Births.	Percentage of Total Births.
1913	325	6.0
1914	341	6.6
1915	290	5.9
1916	287	6.1
1917	281	6.9
1918	350	8.2
1919	338	7.9

For the purpose under consideration 1914 was a pre-war year.

Up to 1918 there was practically no increase in the percentage of illegitimate births, and there was a considerable decrease in the actual number. In 1918 and 1919 there was a marked increase in both the number and percentage.

INFANT MORTALITY.

There were 316 deaths of infants under one year of age, equal to a mortality of 74 for every 1,000 births.

The rate for England and Wales was 89.

TABLE I.

Average of the Annual Infantile Mortality for the Sanitary Districts for the Periods 1901—1906, 1907—1914, 1915—1918, and the Rates for 1919.

Urban Districts.	1901 to 1906	1907 to 1914	Percentage increase or decrease in second period.	1907—1914 Percentage above or below the average for Urban Districts.	Average for years 1915—1918	Rates for 1919.
Bishop's Castle	86	100	+ **16.3**	+ **4.2**	131	0
Bridgnorth ..	106	116	+ 9.4	+ **0.8**	102	112
ChurchStretton	96	99	+ **3.1**	+ **3.1**	73	42
Dawley ..	112	97	— 13.4	+ **1.0**	79	70
Ellesmere ..	103	65	— 36.8	— 32.3	75	69
Ludlow ..	113	84	— 25.7	— 12.5	84	40
MarketDrayton	..	..	..	..	33	63
Newport ..	117	80	— 31.6	— 16.7	83	71
Oakengates ..	138	104	— 24.6	+ **8.3**	90	75
Oswestry ..	102	101	— 1.0	+ **5.2**	92	112
Shrewsbury ..	126	102	— 19.0	+ **6.2**	73	80
Wellington ..	114	78	— 31.6	— 18.7	101	51
Wem	93	87	— 6.4	— 9.4	46	51
Wenlock ..	102	85	— 16.7	— 11.5	70	74
Whitchurch ..	103	104	+ **1.0**	+ **8.3**	89	54
All Districts ..	112	96	— 14.3	..	84	74

Rural Districts.	1901 to 1906	1907 to 1914	Percentage increase or decrease in second period.	1907—1914 Percentage above or below the average for Rural Districts.	Average for years 1915—1918	Rates for 1919.
Atcham ..	84	77	— 8.3	— 1.3	59	46
Bridgnorth	87	67	— 23.0	— 14.1	62	77
Burford ..	59	68	+ **15.2**	— 12.8	43	0
Chirbury ..	77	60	— 22.1	— 23.1	40	96
Church Stretton ..	97	80	— 17.5	+ **2.6**	84	39
Cleobury Mortimer	92	74	— 19.6	— 5.1	77	52
Clun ..	100	72	— 28.0	— 7.7	90	111
Drayton ..	115	84	— 26.0	+ **7.7**	72	96
Ellesmere ..	92	84	— 8.7	+ **7.7**	72	76
Ludlow ..	91	69	— 24.2	— 11.5	53	82
Newport ..	106	96	— 9.4	+ **23.1**	99	88
Oswestry ..	96	87	— 9.4	+ **11.5**	81	92
Shifnal ..	94	76	— 19.1	— 2.6	52	51
Teme ..	127	102	— 19.7	+ **30.8**	65	77
Wellington	102	83	— 18.6	+ **6.4**	74	76
Wem ..	69	67	— 3.0	— 14.1	57	78
Whitchurch	61	58	— 5.0	— 25.6	59	111
All Districts	93	78	— 16.1	..	68	74

TABLE II.

Comparisons of Infantile Deaths for Periods of Years.

	Average Annual numbers for years 1905—1909	Average Annual numbers for years 1910—1914	Percentage decrease of numbers in second period compared with first period.	Numbers for year 1915	Numbers for year 1916	Numbers for year 1917	Numbers for year 1918	Numbers for year 1919
Births	5955	5427	8.8	4917	4682	4059	4283	4264
Deaths from all causes under one year ..	561	444	20.8	426	299	323	314	316
Deaths from—								
Measles and Whooping Cough	34	22	35.3	33	18	13	27	5
Influenza	..	..	..	6	4	4	26	15
Other Infectious Diseases	5	1	80.0	0	0	2	1	1
Tuberculous Diseases ..	19	12	36.8	9	4	10	4	2
Convulsions and Meningitis (not tuberculous)	60	42	30.0	39	*	*		
Bronchitis	46	33	28.2	49	25	41	15	23
Pneumonia	65	43	33.8	45	28	33	37	27
Diarrhoea, Enteritis and Gastritis	61	52	14.7	50	18	17	8	
Premature Birth, congenital defects and malformations ..	128	119	7.0	105	*	*		
Atrophy, Debility and Marasmus	96	74	22.9	51	*	*		

This table appears to afford satisfactory evidence of the decline of infantile mortality, and presumably of the good results of our child welfare efforts.

INFECTIOUS DISEASE.

Small-pox.—There were no cases amongst the civilian population. Dr. Gepp reports as follows :—

"I think it well to record the occurrence of a fatal case of small-pox in July, 1919, at Prees Heath Camp, then being used as a Disposal Centre for demobilisation. A soldier coming direct into camp by a troop train from a Southern port was found to be very ill on arrival. He was admitted to the Camp Hospital on the night of July 6th, and was notified to me as suffering from measles. Later, the case was diagnosed as Haemorrhagic Small-pox, and he died on the 11th. He had come from Egypt in a transport from which cases of small-pox were landed at Malta on June 25th. He stated that he had been vaccinated on June 30th, and on arrival at Prees Heath showed well developed mature vaccination. All precautions were taken in the camp and all contacts in hospital were vaccinated with the exception of one V.A.D. nurse who at first refused vaccination. She was in contact with the case from July 6th to 8th, and went down with small-pox on the 21st. She had eventually been vaccinated on the 16th. She was isolated in the camp and recovered. No further case arose, and no spread occurred to the civilian population outside.

The names of some 600 soldiers who had been in contact with the first case in the troop train, and who had been dispersed to their homes, were obtained from the Camp Authorities and the M.O.H. of each district concerned was notified by the County Medical Officer. A report was received of one case discovered in a contact in Lancashire."

Typhoid Fever.—There were only six cases of typhoid fever in the whole County during the year. Three of these were in the Rural District of Ludlow. Of the cases in this district, one was imported and the others were associated with insanitary conditions.

Typhoid fever is becoming a rare disease in the County. The adoption of systematic bacteriological examination on recovery of all cases of typhoid fever has been recommended from year to year in these reports. It is a measure that should now be put into force. The cases are so few that the expense would not be great.

Diphtheria.—Two hundred and twenty-one cases were notified. The principal prevalence was in the urban and rural districts of Bridgnorth. This prevalence was associated with school attendance.

Influenza caused 404 deaths during the year, the incidence in age and sex being as follows :—

	At all ages.	Under 1	1—2	2—5	5—15	15—25	25—45	45—65	Over 65
Urban Districts :—									
Males ..	.. 88	2	4	8	7	7	24	22	14
Females	.. 98	6	6	3	5	10	25	24	19
Rural Districts :—									
Males ..	.. 107	5	2	6	6	7	31	23	27
Females	.. 111	2	2	5	7	17	37	20	21
	404	15	14	22	25	41	117	89	81

RETURN OF INFECTIOUS DISEASES FOR THE YEAR 1919.

	Population Census 1911	Measles.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric (Typhoid) Fever.	Pneumonia.	Chicken-pox.	Influenza.	Puerperal Fever.	Cerebro-spinal Fever.	Acute Poliomyelitis	Encephalitis Lethargica.	Whooping Cough.	Polioencephalitis.	Dysentery.	Ophthalmia Neonatorum.	Erysipelas.	Tuberculous Pulmonary	Tuberculous Other.	Malaria.
RURAL DISTRICTS.																				
Atcham	21770	22	11	14	1	28	1	..	3	1	..	..	..	..	..	3	8	34	9	13
Bridgnorth	9125	63	3	32	..	10	13	..	1	..	..	1	..	..	..	1	2	11	3	4
Burford	1308	12	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
Chirbury	3304	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Church Stretton.. ..	4797	4	4	1	..	3	..	..	1	..	..	1	..	..	..	5	..	8	1	..
Cleobury Mortimer ..	6976	20	2	1	..	1	..	..	..	1	..	1	..	..	1	..	1	13	3	1
Clun	6565	10	6	2	..	14	..	..	..	..	..	..	..	..	..	..	3	5	2	6
Drayton	7258 (Approx.)	89	7	6	..	17	..	..	1	..	..	..	..	..	..	1	1	3	2	2
Ellesmere	8365	5	12	5	..	3	..	..	..	..	..	..	..	..	..	..	1	6	1	1
Ludlow	9438	58	10	2	3	20	..	..	1	..	..	..	..	..	..	1	5	9	2	1
Newport	6005	18	6	2	..	6	..	..	..	..	..	1	..	..	..	2	1	9	..	3
Oswestry..	15442	50	37	14	1	4	..	1	..	..	..	..	..	..	..	3	2	20	8	2
Shifnal	8953	114	3	1	..	2	..	..	..	..	..	..	..	..	..	..	1	13	2	2
Teme	1644	2	1	..	..	12	..	..	..	..	..	..	..	..	..	..	2	2	2	1
Wellington	11091	11	12	9	..	2	..	..	1	..	..	..	..	..	..	2	1	19	5	5
Wem	8373	5	4	10	..	12	..	..	1	..	..	..	..	..	..	1	..	8	3	..
Whitchurch	1935	..	7	10	..	4	..	..	..	..	..	..	..	..	..	2	..	4	..	1
URBAN DISTRICTS.																				
Bishop's Castle ..	1409	3	..	2	..	2	..	..	..	..	..	..	..	..	..	..	4	5	3	..
Bridgnorth	5768	13	14	29	..	17	18	10	..	..	..	..	..	..	1	..	1	7	1	..
Church Stretton ..	1455	3	..	2	..	4	..	..	..	..	..	1	..	..	..	..	..	4	..	1
Dawley	7701	9	22	8	..	10	..	..	2	..	..	..	..	..	..	7	2	11	2	..
Ellesmere	1946	71	2	4	..	..	..	..	1	..	..	..	1	..	..	..	..	3	1	3
Ludlow	5926	11	14	2	..	5	..	..	..	..	1	..	..	..	..	2	2	7	4	4
Market Drayton ..	5082 (Approx.)	4	1	17	..	7	..	..	1	..	..	..	..	..	..	2	1	5	2	2
Newport	3250	22	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	5	1	1
Oakengates	11744	4	13	9	..	18	..	..	..	..	..	..	..	..	1	10	4	20	4	2
Oswestry..	9991	167	4	3	..	2	..	..	..	..	1	1	..	..	..	5	3	12	8	8
Shrewsbury	29389	434	20	23	..	109	..	8	3	1	2	..	..	3	..	9	8	50	20	34
Wellington	7820	5	17	3	..	3	..	..	2	..	..	1	..	..	1	4	2	12	4	4
Wem	2273	..	1	2	..	..	..	..	..	..	..	1	..	..	..	..	..	3	1	2
Wenlock	15244	63	12	3	..	9	..	..	1	..	..	..	..	..	..	3	2	33	6	6
Whitchurch	5757	8	..	4	..	8	..	..	..	..	..	..	..	..	..	8	1	7	..	2
TOTAL	..	1300	247	221	6	332	32	19	19	3	4	8	1	3	4	71	58	350	100	111

The death-rates in the Sanitary Districts were :—

Urban Districts.		*Rural Districts.*	
Bishop's Castle	Nil.	Atcham	1.06
Bridgnorth	4.5	Bridgnorth	2.5
Church Stretton	.7	Burford	Nil.
Dawley	.7	Chirbury	1.3
Ellesmere	.6	Church Stretton	1.1
Ludlow	1.1	Cleobury Mortimer	2.5
Market Drayton	2.2	Clun	2.01
Newport	1.04	Drayton	1.9
Oakengates	2.1	Ellesmere	2.2
Oswestry	2.3	Ludlow	1.1
Shrewsbury	1.8	Newport	2.2
Wellington	.9	Oswestry	1.8
Wem	1.5	Shifnal	1.2
Wenlock	1.01	Teme	3.7
Whitchurch	2.1	Wellington	1.01
		Wem	2.3
		Whitchurch	1.01

The outbreak was almost altogether confined to the first quarter of the year, and followed on a period of comparative freedom after the virulent outbreak in the autumn of 1918. In the absence of notification or death returns most of our information was obtained through the schools and was not based on medical opinion. In the commencement of this year's outbreak the cases were commonly notified as influenza colds, and in some of the schools affected all the cases were classed as bad colds. From the very rapid manner in which these colds spread throughout the schools, and from the fact that influenza was undoubtedly very prevalent at the time, it seems probable that the majority of these "colds" were cases of influenza. Inquiries were made with regard to a considerable number of schools as to whether the children affected had suffered in the autumn. These inquiries showed that out of a total of 1,128 cases, 374, or 33 per cent., had suffered from influenza in the autumn. If the two epidemics were of the same disease, the immunity had passed off very quickly.

The number of schools that were closed on account of influenza during January was 17, February 111, March 165. The total number of cases notified during the first quarter of the year through the schools was 2,392.

The measures taken by the County Council were :—

(1) The early closure of schools when attacked or before invasion in certain instances where there were cases of influenza in the district.

(2) Simple leaflets of precaution were drawn up and circulated through all the schools attacked.

(3) Simple directions for the nursing of influenza were sent to every district nurse and health visitor. The most important part of these directions was that showing how the bedroom should, as far as possible, be turned into an open-air sanatorium.

(4) The district nurses were urged to undertake the health visiting and nursing of cases in their districts.

(5) The nurses and health visitors were instructed in the use of muslin masks for the nose and mouth.

(6) The services of the whole time health visitors, school nurses, and measles nurses were placed at the disposal of the District Medical Officers of Health for any serious outbreaks in their districts.

(7) Consultations were held with the Medical Officers of Health and suggestions were made as to the possibility of obtaining temporary hospital accommodation at the Workhouses for any urgent necessity.

(8) The Police, at my request, communicated with the Managers of the Cinemas with regard to ventilating their places as thoroughly as possible between the performances.

In my report for the fourth quarter of the year I said :—" The principal way in which the County Council can assist, and it is perhaps the most important of all the measures, is by organising an emergency nursing and health visiting service. If a really serious epidemic threatens it will be advisable to suspend for the time being our special health visiting and school nursing work and to put all the health visitors, school nurses and measles nurses on the work of the prevention and nursing of influenza, and for this purpose to place them at the disposal of the local Medical Officers of Health. There is at the present time a proposal before the Council for utilising the district nurses for nursing influenza, pneumonia, measles and whooping cough, and if this is adopted, the services of the district nurse, so far as her other duties would allow, would also be at the disposal of the Medical Officer of Health in case of an epidemic." This proposal has since been carried out, and a large proportion of the district nursing associations have agreed to their nurses undertaking this work.

With our present knowledge and without great interference with industrial life it is not possible to do much by means of isolation and similar direct measures to prevent the spread of the disease. In some countries great efforts have been made, and people have been put to great inconvenience with little or no result.

The one fact, that stands out as clearly proved, is that overcrowding and lack of ventilation of rooms is the great cause of spread of the disease and the principal cause of the fatal complications.

This fact also points to the line on which we should work to lessen epidemics in future, and it also indicates the most hopeful line of work during an epidemic.

The prevention of overcrowding and the free ventilation of bedrooms by open windows, will probably prove also to be the principal means of prevention of such diseases as pneumonia, cerebro-spinal meningitis, polio-encephalitis, poliomyelitis, and other infections which gain access to the body through the nose and throat.

A memo. by the Chief Medical Officer of the Ministry of Health was issued late in the year, in which the possibility of a further outbreak was discussed.

" The following is a summary of lines of action which a Sanitary Authority is recommended to consider in advance :—

1. The appointment by the authority of a small emergency committee (*e.g.*, three members of the Public Health Committee) to whom, with the Medical Officer of Health, should be delegated full powers to act and incur necessary expenditure.

2. Medical practitioners and any voluntary health workers in the district to be consulted through their respective organisations and their co-operation invited in determining the practical methods to be adopted.

3. A scheme as regards the provision of nursing and other assistance to families stricken with influenza to be formulated, such scheme to be carried out under the direction of the Medical Officer of Health.

4. Division of the town or district for this purpose into areas, to each of which one or more trained nurses are allotted for domiciliary nursing, the nurses to act in regard to individual patients solely under the direction of the medical practitioner in charge of the case.

5. Women to be enlisted as " home helps " to assist with cooking, care of children and ordinary domestic work. Inquiries to be made to ascertain where such assistance is most urgently needed.

6. Utilisation to the best advantage of Health Visitors and other members of the staff of the authority and of institutions under the control of the Council ; improvisation of temporary creches and of special kitchens in which food and invalid diet can be prepared.

7. Allocation to influenza patients of one or more wards in the isolation hospital or in some other available and suitable emergency hospital.

8. Issue of notices and leaflets to the public.

9. Prevention or mitigation of overcrowding, and securing adequate ventilation in public buildings or conveyances under the control of the Council.

10. School closure may be specially useful in rural and smaller urban districts.

Malaria, Dysentery, Trench Fever, Acute Primary Pneumonia and Acute Influenzal Pneumonia are now notifiable under the Public Health (Pneumonia, Malaria, Dysentery, etc.) Regulations, 1919. Under these Regulations the Medical Officer of Health has on receipt of a notification, or becoming aware of a case, to take steps to investigate sources of infection, to prevent spread of infection, and, if no practitioner is in attendance, to ascertain the nature of the case. If the case is outside the district, he has to notify the Medical Officer of Health concerned. A case of Trench Fever, Typhus Fever, Relapsing Fever, or Malaria, contracted in this country, or an outbreak of Dysentery, has to be notified to the Ministry of Health and the County Medical Officer of Health.

Cases of Malaria, Trench Fever and Dysentery have to be treated, if possible, in suitable hospitals, unless the Medical Officer of Health considers they can be treated with safety at home.

In any case of Malaria occurring in a district where the Medical Officer of Health considers that precautions are necessary, he shall take steps to ensure that the patient (1) is supplied with mosquito netting, (2) receives necessary quinine treatment and proper advice for its continuation, (3) receives advice as to precautions. If two or more cases are contracted in the district the Sanitary Authority may appoint and, if required by the Local Government Board, shall appoint a medical practitioner to supervise the household and take effective measures.

In the case of Dysentery, power is given to the Medical Officer of Health to prevent a person preparing or handling food, to exclude children from school and to take suitable measures "with respect to cleansing, disinfection, disposal of excreta, destruction of flies, and prevention of contamination of articles of food or drink for human consumption."

Power is also given to the Medical Officer of Health to prevent a "carrier" of dysentery or typhoid fever being employed in any trade connected with the preparation or handling of food or drink.

In Trench Fever, Typhus or Relapsing Fever, power is given to secure the destruction of lice on the person or clothing of every occupant of a building and of lice or their products in the building.

Where there is a suitable hospital, power of removal of a patient suffering from Trench Fever, Malaria, or Dysentery, is given on the certif cate of the Medical Officer of Health, if he patient is without proper lodging accommodation.

A Local Authority is empowered to provide medical and nursing assistance for persons suffering from any of the diseases mentioned in the regulations if they need assistance.

The regulations came into force on March 1st, 1919.

Malaria.—One hundred and eleven cases were notified in the County, but so far as my information goes all these, with the exception of two outbreaks, were infected abroad.

A man at Bicton who had not been out of the County was notified as suffering from malaria, and the disease was confirmed by microscopical examination of the blood. He had been living in the same house with a man who had suffered from malaria in the South African War, and had apparently had yearly relapses since. The malaria mosquito was present in large numbers in the farm buildings. The second outbreak was at Coalport, in August. Dr. Gepp, in his report says:—"Three cases arose locally in one family at Coalport, in August. They were sisters, aged 6, 13, and 14. The cases were notified by a medical man, who found the malaria parasites in the patients' blood. This outbreak was visited and enquired into by Dr. A. C. Parsons of the Ministry of Health, in company with the County Medical Officer and myself. The Anopheles Maculipennis (malaria mosquito) was found plentifully in the open near the house, and one was found by Dr. Parsons in the house. The larvae of the insect were found breeding in the canal dead-end near by at Coalport. A possible 'carrier' of infection was found in a man returned home from Salonica, who had had two slight recurrent attacks of malaria in August. He lived within 400 yards of the affected premises. The children had definite, moderately severe, attacks, which cleared up rapidly under treatment, with no recurrence to the end of the year."

These cases undoubtedly prove that malaria may arise in this country from infected persons coming from abroad. The small number of such cases, notwithstanding the large number of infected soldiers, appears to show that the danger is very slight. It must be remembered too, that the summer of 1919 was a hot one favourable to the spread of a disease which is communicated through the bite of an insect. It is most improbable that circumstances so favourable to the spread of this disease will occur again in this country.

Investigation by Mr. Groves, an emtomologist sent by the Local Government Board, showed that the malaria mosquito could be found in farm buildings in practically every part of the County.

Dysentery.—Dr. Gepp reports (Clun Rural District). "I reported in the Annual Report for 1916 on a somewhat extensive but very scattered outbreak of Bacillary Dysentery of Flexner type in the district. Several suspicious cases were reported by medical men in April and May of 1917, mainly in the Clun area, but two also at Lydbury North. There was also a prevalence of diarrhoea at the time among children attending Clun School. The symptoms of straining, and blood and mucus in the stools were common among the more severe cases of diarrhoea. The County Medical Officer and I paid a visit and investigated a number of the cases. The cases appeared clinically to be typical of dysentery of a milder type than those of 1916. Blood specimens were sent up for bacteriological examination from some eight cases, but no definitely positive result was obtained. In two cases only there was a slight reaction to the Flexner organism. Due precautions were taken, advice and instructions given to infected households, and disinfectants supplied.

In 1919, three cases were notified in young children in one family at Colebatch in May. The blood test proved negative."

Wenlock Borough. "Two cases of suspected dysentery were reported from Broseley in March, 1918. In one case the patient was one of those similarly affected in 1916, as reported on in my Annual Report for that year. Investigation was made but no bacteriological evidence was obtained. No case of dysentery was notified in 1919, and so far no definite light has been thrown upon the actual nature of these outbreaks, the bacteriological evidence in 1916 being negative as to bacillary dysentery. Precautions were advised and disinfectants supplied."

Poliomyelitis.—Four cases were notified—two in Shrewsbury, one in Ludlow, and one in Oswestry. Arrangements have been made for supplying a specially trained nurse for these cases on application by wire from the Medical Practitioner. The following letter has been sent to all practitioners in the County :—

DEAR SIR,

Poliomyelitis.

The question of the provision for early treatment of Poliomyelitis has been under consideration by the Public Health Committee.

The Committee are advised that with early and efficient treatment it is possible to prevent deformity in almost every case, and by a continuance of proper treatment to greatly increase the power and usefulness of the affected muscles. By such treatment most of the disability arising from poliomyelitis would be prevented, and there would no longer be any necessity for most of the major operations that are at present performed.

The Committee have authorised me to make arrangements for placing a skilled orthopaedic nurse at your disposal for the treatment under your supervision of any early case of poliomyelitis that may occur in your practice. If it is found desirable that the case should be removed to the Baschurch Surgical Home, the County Council will bear the expense, if the patient is not able to pay.

It is obviously most important for the efficient carrying out of the scheme, that the cases or even suspected cases should be very promptly notified.

These cases, as you are aware, have to be notified to the Medical Officer of Health of the District, but where a nurse is desired, a telegram should be sent to me requisitioning one to be supplied.

It is our great desire that no case of poliomyelitis should be allowed to grow up without the advantage of the best orthopaedic treatment available.

Yours faithfully,

JAMES WHEATLEY.

To each Medical Practitioner in the County of Salop.

Cerebro-spinal Meningitis.—Only three cases were notified—all quite separate outbreaks. In one of the cases there was association with a soldier on leave.

No arrangement has so far been made with medical practitioners for the performance of lumbar puncture in accordance with the Public Health (Cerebro-spinal Fever) Regulations, 1919. Serum for injection is supplied on application.

TUBERCULOSIS.

There are many problems of vital importance in the prevention of tuberculosis which have not yet been completely solved. Perhaps the most important of these are :—

(i) What is the principal point of entrance of the poison—through the respiratory tract and lungs or through the throat and alimentary system ? To put the matter in another form—is the poison usually inhaled or swallowed ?

(ii) Can immunity be obtained otherwise than by previous infection ?

(iii) Does the infection which produces phthisis in the adult usually gain access to the body in early childhood or at a later age ?

This is not the place to discuss these various problems, but it may be stated that the balance of evidence seems to be turning definitely in favour of the view that infection is mostly in early childhood, and that immunity is only gained by previous infection.

Whether infection is usually swallowed or inhaled, is a question upon which there is still much difference of opinion.

It is obvious that these are not mere academic problems, but upon their satisfactory solution depends much of our preventive action.

If immunity does depend upon previous infection our efforts must be devoted to preventing infection in a concentrated form likely to overcome the natural resistance of the body and to increasing the resistance by improved conditions of living—open air life, exercise, good food and houses. The conditions necessary to raise this resistance are well set out in Professor Leonard Hill's writings. If we could combine these conditions with minimum infections and with a complete freedom from exposure to concentrated infection we should probably have ideal conditions for the prevention of tuberculosis.

In towns almost every person becomes infected in some degree before adult life, so that it is most important that efforts should be concentrated upon improving the resisting power of the individual by the measures above mentioned. At the same time the danger of concentrated infection which is usually present when a person suffering from consumption in an active stage is living in an overcrowded house, should be diminished in every possible way.

If infection, including the dangerous concentrated infections which eventually overcome the resistance of the body, do mostly occur in childhood, it is obvious that special measures must be taken to safeguard children from intense exposure to infection. It also follows that the greatest good in the form of treatment may be expected from measures directed to improving the physical condition of children who show early signs of tuberculous infection or who appear to be in a condition likely to succumb to tuberculous infection. For such children open air institutional beds are required.

Again, if infection is principally due to infected material swallowed and not inhaled, the precautions necessary are different, the infection should be more under our control, and the healthy condition of the throat and mouth becomes a matter of great importance.

With our present knowledge we must devote our attention equally to preventing infection by inhalation and swallowing.

Whilst there is some difference of opinion upon the matters above mentioned, there is practical unanimity on the broad lines of prevention.

First and foremost come the conditions that we understand as necessary for a healthy life—living in the open air as much as possible with exercises of a kind to produce deep breathing, vigorous circulation and a proper action of the skin, good and sufficient food, clothing suited to climate and exercise, good housing and particularly housing surroundings. These conditions not only raise the resistance of the body to infection but do much to prevent the dangerous intense exposures to infection. Apart from the direct action of public authorities in providing good houses, schools, playing fields, etc., reliance must be placed upon education. Whatever we may know as to the laws of health is of little value until the public also knows. Sound education forms the basis of all prevention of disease. Fortunately the work of Professor Leonard Hill is placing much of our knowledge with regard to the effect of open air life, exercises, etc., on a sound physiological basis.

The second great point of agreement is that the person giving off infective material should be made as little a danger to the community as possible. In the earlier stages of the disease this can be done to a great extent by careful personal precautions. Later on isolation hospitals are essentials, particularly for persons living in small and crowded households. The provision of further institutional accommodation for these cases is one of the important measures needed in this County.

The third great measure of prevention is early treatment, so that the patient may be cured and no longer be a danger to the community. This is an inferior method of attacking the disease, although it is conceivable that with improved methods of treatment, it may at some time occupy a much more important position. The effect that can be produced by treatment must depend primarily upon early knowledge of the disease, and this, in its turn, upon early notification by medical practitioners, a thorough system of examination of contacts by the Tuberculosis Officers, and the discovery of cases amongst school children by the School Medical Officers. An important and essential unit in the treatment of phthisical persons is the sanatorium. Unfortunately this institution has loomed so largely in the eyes of the public that it has been looked upon as the most inportant part of the scheme instead of an essential but very secondary part. Apart from its curative effect, a sanatorium has a most important educational purpose, and it also exercises the greatest influence towards getting cases notified at an early stage. Before sanatoria were available for the mass of the people, neither the doctor nor the patient was at all anxious to arrive at a diagnosis. No purpose appeared to be served by doing so, as no treatment was available, at least amongst the poorer classes of the population, and so the cases were allowed to drift. Notification is now steadily improving and has reached a point that would have been impossible without a sanatorium. The sanatorium has also served a humanitarian purpose of the greatest value. Still the usefulness of sanatoria will be principally judged by the cures effected. If it fails to effect cures, it may be because the cases are received in too late a stage or because the treatment given is not of the best kind. These defects are not inherent in sanatorium treatment, and efforts should be directed to removing them.

Shirlett Sanatorium was opened in 1911. There can be no doubt its educational effect has been most valuable. It has also helped greatly in obtaining early notification of cases and generally has oiled the wheels of the whole scheme. It has now been open sufficiently long for a statistical investigation into results. Such an investigation is being undertaken and will be published in the report for 1920.

Incidence.—During the year there were 341 cases of pulmonary tuberculosis, and 102 cases of other forms of tuberculosis notified. There were 171 deaths from pulmonary tuberculosis and 44 deaths from other forms of tuberculosis.

TABLE III.

Notifications Classified for Age and Sex.

Age Periods.	Notifications on Form **A.**												
	Number of Primary Notifications.												Total Notifications on Form **A.**
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards.	Total Primary Notifications.	
Pulmonary Males ..	..	2	9	18	16	32	51	32	25	9	8	202	214
,, Females ..	..	2	9	17	21	17	41	16	9	5	2	139	144
Non-pulmonary Males ..	2	5	12	14	10	1	7	1	3	..	1	56	56
,, Females	1	10	9	6	7	2	4	4	2	..	1	46	46

Age Periods.	Notifications on Form **B.**					Number of Notifications on Form **C.**	
	Number of Primary Notifications.				Total Notifications on Form **B.**	Poor Law Institutions.	Sanatoria.
	Under 5	5 to 10	10 to 15	Total Primary Notifications.			
Pulmonary Males ..	..	..	3	3	3	..	128
,, Females ..	..	2	4	6	5	..	90
Non-pulmonary Males ..	..	..	..	..	..	..	1
Females ..	..	..	..	..	..	..	..

TABLE IV.

Year of Notification.	PERCENTAGES OF PATIENTS KNOWN TO BE ALIVE AT END OF :—							
	The Year of Notification.	1st year after Notification.	2nd year after Notification.	3rd year after Notification.	4th year after Notification.	5th year after Notification.	6th year after Notification.	7th year after Notification.
1912	72.3	63.5	53.1	49.3	47.3	46.4	44.4	44.2
1913	82.5	64.4	59.6	56.7	55.9	52.3	50.7	
1914	72.8	58.2	53.5	51.1	48.0	45.5		
1915	76.2	61.9	57.0	52.8	49.0			
1916	78.5	65.8	59.9	56.5				
1917	76.6	64.3	56.8					
1918	76.7	67.1	56.1					
1919	78.9	65.2						

For the purpose of this table those cases that have left the County or in which the diagnosis was wrong have been excluded.

TABLE V.

AFTER-HISTORY OF NOTIFIED CASES SINCE 1912.

Year	No. of cases notified in year	Number of cases that died in years								Left the County.	Wrongly diagnosed.	Unaccounted for.	Alive at end of years							
		1912	1913	1914	1915	1916	1917	1918	1919				1912	1913	1914	1915	1916	1917	1918	1919
1912	439	117	36	43	15	8	4	8	1	6	..	17	306	266	222	205	197	193	185	184
1913	290		50	51	12	8	2	9	4	10	1	3		236	183	167	159	156	145	140
1914	267			73	34	12	6	8	6	9	..	3			188	149	137	131	123	116
1915	381				89	49	17	14	12	20	1	5				286	225	206	189	174
1916	392					81	44	20	11	28	1	4					297	141	217	203
1917	403						90	44	29	25	5	1						298	243	209
1918	425							93	42	28	11	..							306	251
1919	341								67	18	4	..								252

Comparison with previous years :—

Years.	Cases notified.	Deaths.	Years.	Cases notified.	Deaths.
1906	2	253	*1912	439	208
1907	3	236	1913	320	146
1908	33	230	1914	295	204
1909	32	225	1915	379	214
1910	19	206	1916	364	206
1911	103	216	1917	406	199
			1918	425	222
			1919	341	171
	Average	228		Average	196

*** Compulsory notification commenced in 1912.**

It will be seen that there has been a very considerable decrease since compulsory notification. This is very satisfactory considering the adverse war conditions and the very serious epidemic of influenza in 1918.

The fall in the deaths in 1919 was in spite of a serious epidemic of influenza in that year, and is very encouraging. The lessened rate, however, may have been partly due to the still more severe epidemic in 1918 having killed off a large number of phthisical persons.

Annual deaths for the four years 1916—1919 inclusive, classified in age periods, sex and urban and rural districts :—

Year	URBAN DISTRICTS.												RURAL DISTRICTS.											
	All ages.		0—		15—		25—		45—		65—		All ages.		0—		15—		25—		45—		65—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1916	48	58	2	3	8	8	28	32	8	14	2	1	52	48		4	3	11	24	21	21	9	4	3
1917	55	52	4	7	7	10	24	24	18	10	2	1	44	48	1		6	13	19	27	14	8	4	
1918	62	52	6	6	8	12	32	25	12	7	4	2	47	61	1	4	13	21	17	28	15	8	1	
1919	52	42	1	5	10	14	15	18	19	3	7	2	42	35	2	3	14	9	19	17	6	6	1	

Present Position of Scheme.

The scheme as it existed last year was published in the Annual Report for 1918.

Since then a dispensary has been opened at Wellington, and is working most successfully. Another will shortly be opened at Whitchurch, and possibly one at Ludlow and Ironbridge. The small-pox hospital near Prees Heath is being altered for the reception of advanced cases of phthisis, and will shortly be ready.

To complete the scheme the following additions are required—more beds for advanced cases ; dispensaries for the south of the County at Ludlow and Bridgnorth ; an institution for the reception of children requiring open air treatment, including those suspected of phthisis ; observation beds near Shrewsbury with facilities for X-ray examination and for treatment by the production of pneumothorax. This latter provision could best be arranged for in connection with the Salop Infirmary.

The following quotation from my last report deals with another very important defect in our present arrangements :—

"It is allowed on every hand that one of the principal difficulties of dealing with consumptive persons is that on discharge from the Sanatorium they cannot under existing circumstances be prevented from going back to their previous unsatisfactory housing and other conditions. The provision of farm colonies and other similar provision will only deal with a fraction of the cases. Nor is there any likelihood that phthisical persons will benefit by the municipal housing schemes, unless there is legislation in their favour. The selective action of the housing authorities will frequently be exercised in excluding these families. There can be no doubt, however, that the best and cheapest way of dealing with such families is to provide a healthy dwelling with a garden sufficient for the use of a shelter. The Government is bearing most of the financial loss on the housing scheme, and the Government should see that the schemes are a means of removing phthisis families from slum houses, thus both diminishing the risk of the spread of infection and giving the discharged sanatorium patient the possibility of continuing a sanatorium life. Sanitary Authorities should also bear in mind that they are responsible for the satisfactory housing of consumptive persons."

Work under Scheme.—A full description of the work of the Tuberculosis Officers and Health Visitors appeared in the report for last year. In addition to the work there set out, each of the Tuberculosis Officers now attends at the Pensions Board for one half-day a week, and one of the Tuberculosis Officers (Dr. Elliott) has superintendent duties in connection with the Shirlett Sanatorium and the Steeraway Hospital for advanced cases of consumption.

Dispensaries :—

	Insured.	Non-insured.	School Children.	Total.
Shrewsbury.				
Number of patients who attended in 1919 for the first time	143	57	67	267
Attendances during 1919	1054	312	840	2206
Oswestry.				
Number of patients who attended in 1919 for the first time	37	24	47	108
Attendance during 1919	275	93	300	668

Visits by the Tuberculosis Medical Officers in 1919 :—

To insured persons	724
To non-insured persons	281
To school children	320
	1325

Visits by health visitors to phthisis houses in 1919—2222.

King Edward Sanatorium (Shirlett).—The number of patients admitted to the Sanatorium in 1919 was 134, and consisted of :—

Insured patients—Males	69
,, ,, Females	20
Non-insured patients—Males	14
,, ,, Females	31

Condition of Patients admitted in 1919.

(Explanation of classification see below).

Classification of patients admitted according to the Turban-Gernhardt (horizontal columns) and the Interim Report of the Departmental Committee (vertical columns) classifications.

Males.

Turban Gernhardt.	Interim Report Classification. I.	II.	III.	IV.	V.	VI.	Total.
I.	3	3	4	5	..	..	15
II.	..	4	15	14	..	..	33
III.	..	2	9	20	1	3	35
Total	3	9	28	39	1	3	83

Females.

Turban Gernhardt.	Interim Report Classification. I.	II.	III.	IV.	V.	VI.	Total.
I.	2	6	3	..	..	..	11
II.	..	5	5	2	0	..	12
III.	..	3	5	11	9	..	28
Total	2	14	13	13	9	..	51

With our present knowledge we must devote our attention equally to preventing infection by inhalation and by swallowing.

Turban Gernhardt Classification.

Stage I.—Disease of slight severity, limited to small areas on either side, which in the case of infection of both apices does not extend below the spine of the scapula or the clavicle, or in the case of affection of the apex of one lung, does not extend below the second rib in front.

Stage II.—Disease of slight severity, more extensive than Stage I., but affecting at most the whole of one lobe, or severe disease extending at most to the half of one lobe.

Stage III.—All cases of greater severity than Group II., and all these with considerable cavities.

Classification in Interim Report of the Departmental Committee on Tuberculosis.

I.—Cases in which the disease can be diagnosed, or is strongly suspected, but in which there is no evident impairment of the working capacity.

II.—Cases of recent onset with some impairment of the working capacity, but without marked evidence of ill-health.

III.—Cases of recent onset with evidence of acute illness.

IV.—Cases with a longer history of illness. In some of these cases permanent arrest of the disease may be hoped for, but in the majority, restoration to full working capacity for more than a comparatively short period is not to be looked for.

V.—Cases in which there is a permanent loss of working capacity. Many of these cases live for a considerable period in a condition of chronic ill-health.

VI.—Cases in which a fatal termination within six months is probable.

Condition of Patients Discharged in 1919.

	No. arrested. Tubercle Bacilli absent from Sputum.	Improved.	Stationary.	Worse.	Died.	Total.
Males	42	33	2	3	1	81
Females ..	23	19	4	4	1	51
Total.. ..	65	52	6	7	2	132

Presence or absence of tubercle bacilli in patients discharged :—

Men.

Turban* Gernhardt Stadii.	Number of Cases.	Percentage of Total Number.	Tubercle Bacilli Present.	Tubercle Bacilli Absent	No Sputum Present.	Not Examined.	Died.
I.	21	25.9	4	4	12	1	..
II.	41	50.6	3	9	27	2	..
III.	18	22.2	8	1	9	..	..
Died	1	1.3	..	..	..	..	1
Total	81	100	15	14	48	3	1

Women.

Turban* Gernhardt Stadii.	Number of Cases.	Percentage of Total Number.	Tubercle Bacilli Present.	Tubercle Bacilli Absent.	No Sputum. Present.	Not Examined.	Died.
I.	14	27.4	1	..	13	..	..
II.	17	33.3	1	6	10	..	..
III.	19	37.2	6	5	8	..	..
Died	1	2.1	..	..	..	..	1
Total	51	100	8	11	31	0	1

**. Turban Gernhardt Classification.*

Working Capacity of Patients discharged :—

	Males.	*Females.*	*Total.*
Unimpaired	58	32	90
Impaired	17	12	29
Incapacitated	5	6	11
Total..	80	50	130

Increase or Decrease of Weight whilst in Sanatorium :—

	Males.	*Females.*	*Total.*
Weight Increased	73	41	114
,, Decreased	3	..	3
Not Weighed	4	9	13
Total..	80	50	130

LENGTH OF STAY IN SANATORIUM.

Cases in which permanent recovery may usually be anticipated	146.3 days.
Cases in which temporary though possible prolonged improvement may be anticipated	138.8 ,,
Cases admitted for educational purposes	38.0 ,,
All patients	134.9 ,,

The percentage of cases discharged as "arrested," and without tubercle bacilli in the sputum was 49, compared with 56 in 1918, 50 in 1917. This most satisfactory result is probably due principally to the admission of cases in an early stage, and as early admission is the most important factor determining the utility of a sanatorium the greatly improved position in this respect is a matter for congratulations.

It is gratifying to know that no patient in whom there is a reasonable prospect of arrest or cure of the disease is discharged owing to lack of accommodation, and that the waiting list is always small, so that patients are never kept waiting any considerable length of time. There have been a few exceptions in the case of children.

Baschurch Surgical Home.—As a result of the County Council undertaking the payment of all cases of tuberculosis, and as a result of the establishment of an after-care scheme in connection with Baschurch, almost all cases requiring institutional treatment for surgical tuberculosis are now admitted to the Home.

Seventy-three cases of surgical tuberculosis were treated in the Home during 1919, and 118 cases were under supervision at the after-care centres on December 31st, 1919.

See also para. on page 26.

Shelters.—There are at present over 112 shelters in the County. The County Council have provided 97; Shrewsbury Borough 4; Atcham Rural District 2; Whitchurch Urban District Council 2; Drayton Rural and Urban District Council 2; Chirbury Rural District Council 1; the Ludlow Care Committee 4; in addition several have been provided by private individuals. Shelters were originally provided for curative purposes, either for patients who could not go to the sanatorium or for patients on their discharge, but perhaps an even more valuable use for shelters is in providing living and sleeping accommodation for highly infectious cases. The removal of such a case from a crowded household into a shelter not only removes a most dangerous source of infection, but also provides more room for the remainder of the occupants, and thus reduces overcrowding. There will always remain a considerable number of cases that cannot be dealt with at home by means of shelters, including especially those cases where the mother of a family is the person affected, and those in which the surroundings of the home do not permit of the use of a shelter. For all these, hospital beds are essential.

Care Scheme.—A Central Care Committee and local Care Committees covering the whole County, have been appointed. Broadly speaking, the object of these Committees is to keep in touch with the cases of phthisis throughout the County and by means of advice and help to enable the patients to live as far as possible a "sanatorium life"; and also to report unfavourable conditions that they cannot remedy. The Care Scheme is at present being revised.

Disinfection of Houses.—Much correspondence has taken place between the County Council and Local Sanitary Authorities on this matter.

It was suggested by me that phthisis houses should be disinfected on the following occasions:

1.—On notification of the case.
2.—During progress of the case, to be determined by the nature of the case and its surroundings.
3.—On removal to the sanatorium or change of address.
4.—After death.
5.—Disinfection of shelter when it has ceased to be used.

All authorities have not yet signified their willingness to carry out the disinfection here described. Efforts should be made to get disinfection carried out satisfactorily in all districts.

Efficiency of Notification.—Continued efforts have been made to bring about early notification, with the result that there is continued improvement from year to year. There have, however, been a number of serious cases of omission, as the following figures show :—The number of deaths that took place within three months of notification was 55. Seven of these were notified after death, 1 on the day of death, 9 others less than a week before death, and 5 between one and two weeks before death, or a total of 22 were notified within a month of death.

This matter is under the control of the Local Sanitary Authorities, on whom the duty rests of seeing that notification is properly carried out. The only remedy is for the Medical Officer of Health to make careful inquiries into all cases where undue delay appears to have taken place and to ask for an explanation where necessary. It is as much the duty of the medical attendant to notify promptly a case of phthisis as it is to notify a case of scarlet fever or diphtheria. The disease, however, being a chronic one, there is a tendency to put off arriving at a definite diagnosis and to put off notification until a late period.

Examination of Sputum.—It is recognised as of the utmost importance that sputum, if present, should be examined in every case of phthisis, and that the examination should be repeated as often as may be necessary to determine the progress of the case or its infectiousness. The County Council have for many years provided facilities for examination of sputum, and practitioners are urged to make the fullest use of these facilities in every case.

Arrangements have now been made so that with the consent of the practitioners, the health visitor takes specimens when required. In this way specimens should be obtained in all cases where there is any sputum to examine.

Out of 341 cases notified, the sputum was positive in 94 cases, negative in 68 cases, and in 75 cases there was no sputum. No examination appears to have been made in 104 cases.

CANCER.

Cancer was responsible for 322 deaths—145 in the urban and 177 in the rural districts. One hundred and twenty-six of these were of males and 196 of females. The deaths from this disease have continued to increase year by year. Previous to the year 1907 the deaths from tuberculosis exceeded those from cancer. This year the deaths from cancer exceeded those from tuberculosis by 88 per cent. Much work has been carried out with the object of finding the cause of cancer and a cure for it. The only fact in causation that has been definitely proved is that 'irritation' is a very common exciting cause. The 'irritation' may be due to friction, heat, septic conditions, or irritation by mechanical particles or chemically active substances. What exactly is the predisposing condition that determines the production of cancer by irritation in one individual and not in another, is not understood. It is probable, however, that the maintenance of normal function in an organ or part of the body diminishes the probability of the occurrence of cancer.

Instead of waiting for some royal road to the cure or prevention of cancer, which very probably will never be found, it would be more profitable to turn our attention to removal of all sources of local irritation, to the removal of sources of septic absorption and to the establishment of a normal or physiological function of organs and parts of the body, in other words, to bring about physiological methods of living. If this is done, and at the same time the public is educated to consult a doctor at once, when any tumour or symptoms of cancer are noticed, a considerable decrease in the number of deaths will probably result.

MATERNITY AND CHILD WELFARE.

The Maternity and Child Welfare Scheme has now been in operation for about five years. During the whole of this time gradual progress has been made, so that now a scheme fairly complete in some respects, but still capable of very great improvement in others is in operation. Experience of these five years has greatly emphasised the importance of this work to the community, and every year fresh lines of action open up and fresh possibilities arise.

The active, although much delayed, investigations into the physiology of healthy living that is now taking place, will be of little practical utility unless we can bring the results to the knowledge of the mass of the people in such a way that it will affect their every-day life. This educational work in the homes of the people must be undertaken almost entirely by the Health Visitors until the time arrives when the hygienic education and supervision of the people becomes part of the work of the great body of medical practitioners. The discovery of a radical method of treating syphilis can only be properly utilised so far as children are concerned by getting the expectant mothers and infants under treatment in connection with the Child Welfare Centres.

It is now being fully recognised that much of the disease and ill health of the adult has its origin in the infant or during foetal life, and that this can only be radically dealt with by measures directed to improving the health of the expectant mother and the young child.

Dr. Janet Campbell in the Report of the Chief Medical Officer of the Ministry of Health says—" the ultimate objects of all effort for the welfare of mothers and little children should never be lost sight of, namely, to make maternity safer and less burdensome, less disabling for the mother ; to give the mother a sound and practical knowledge of the elementary laws of hygiene which should govern the healthy upbringing of her family ; to aid her to carry out these rules in her own home and to make good unavoidable shortcomings due to faulty environment, lack of means or social disability by the provision of medical care in its widest connotation for the infant and young child both before and after birth."

As a result of the five years' working of the scheme it may be confidently asserted that a very great improvement in the upbringing of children has been effected. There is a greater appreciation of the importance of child welfare among the people. More attention is being given to the proper feeding, clothing, exercise, and fresh air for the infant. Natural feeding is becoming more universal ; regularity of feeding at satisfactory intervals is the rule rather than the exception ; the long tube bottle is rapidly disappearing, and the use of the dummy is growing less. It is difficult to show by statistics the improvement of the health effected, but the only figures that one can at present quote, the death figures under one year, are eminently satisfactory :—

Year		Deaths.	Year.		Deaths.
1919	..	316	1914	..	461
1918	..	314	1913	..	390
1917	..	323	1912	..	390
1916	..	299	1911	..	512
1915	..	426	1910	..	469

The provision already made for carrying out this work and the general activities of the Child Welfare Committee come under the following headings :—

(1) The provision for systematic health visiting of infants up to five years of age, and of expectant mothers.
(2) The provision for the health visiting and nursing of measles, whooping cough, pneumonia, and ophthalmia neonatorum.
(3) The provision and staffing of maternity and child welfare centres.
(4) The promotion of a midwifery service throughout the County.
(5) The provision of medical attendance when a midwife finds medical help necessary.
(6) The provision of maternity beds.

(7) The provision of a home for ailing babies.
(8) The supply of milk to nursing and expectant mothers and children under five years of age.
(9) The provision of orthopaedic treatment for children under five years of age.
(10) The institutional treatment of the expectant mother suffering from venereal disease.*
(11) Arrangements with the Shrewsbury Eye Hospital for treatment of defects of the eye, ear, throat and nose.
(12) The provision of a lecturer on hygiene, who is available for lecturing on child welfare.

In addition the County Council has under consideration :—

(1) The taking over of the Lady Forester Hospital, Wenlock, as an open air hospital and convalescent home.
(2) The payment for beds for unmarried mothers and their infants at existing hostels.

The scheme of the Salop Infirmary for providing beds for children and complicated cases of confinement is in abeyance.

Notification of Births Act, 1907.—This Act, which came into practical operation in 1915, is the basis of all Child Welfare work. It is working smoothly, and as the figures quoted below show, also efficiently. In 1918 the births notified or discovered were less than the number of births registered by 109. Subsequent inquiries brought to light 49 more births. In 1919 the births notified and discovered were 72 in excess of the registered births. Owing to the late registration of births there will never be an exact correspondence, but the figures show that practically all children now come under supervision.

Notification of Births.

Total Births, exclusive of Shrewsbury (L.G.B. Tables)		3701
Notification of births by midwives	2871	
" " medical practitioners	694	
" " parents or other persons	51	
Total notified	3616	
Discovered by Health Visitors	45	
Obtained from Registrars' Returns	112	
		3773
Excess of Births notified or discovered over births registered		72

In the Borough of Shrewsbury, 585 notifications were received, of which 447 were sent in by midwives.

Medical and Health Visiting Services.—There are six medical officers undertaking school and maternity and child welfare work. Their duties consist of attending the Maternity and Child Welfare Centres and exercising a general supervision over the work of the health visitor. It is estimated that this will occupy about one-third of their time.

There are 12 whole time health visitors. All these health visitors are now employed on maternity and child welfare, measles, ophthalmia, tuberculosis, and mental deficiency work, and in this way the area of their districts has been greatly lessened, and 10 of them also do school nursing.

In addition there are 50 district nurses acting as part-time health visitors.

The scheme is not yet fully developed, and the amount of visiting is not up to the standard fixed by the Ministry of Health. Four more health visitors have been authorised.

* This comes under the scheme for the Prevention and Treatment of Venereal Disease.

The increase in the number of health visitors, the combination of duties, and the consequent lessening of the size of the districts did not take place until the year 1920, so that it did not affect the amount of visiting in 1919.

In 1919 the visits paid by health visitors to infants were :—

	1st	*2nd*	*3rd*	*Subsequent.*	*Total Visits.*
Whole Time	2937	2151	1985	10653	17726
Part Time	909	810	795	6016	8530
Total ..	3846	2961	2780	16669	26256

and visits to expectant mothers numbered 2901.

The visits paid to measles houses and the cases dealt with were :—

Houses visited.	Cases visited.	Cases without Doctor.	Cases Doctor advised.
463	754	138	11

The visits to cases of tuberculosis are given on page 16.

The visits to expectant mothers (2901) are gradually increasing in number. At present, however, this work is in its infancy.

One of the criterions of the efficiency of a health visiting service is the proportion of infants that are naturally fed. The following very important rule was incorporated in the rules of the Central Midwives Board in the year 1919. :—

> " A Midwife must forthwith notify the Local Supervising Authority of each case in which it is proposed to substitute artificial feeding for breast feeding."

It is now possible to inquire into these cases and advise and bring pressure to bear on the midwife and mother to continue natural feeding where this is desirable. During the year 40 notifications were received under this rule. The causes given for ceasing natural feeding were :—

Mother.

Unhealthy or delicate mothers	12
Depressed nipples	1
Insufficiency or absence of milk	16
Refusal to breast feed	6

Baby.

Delicate, weakly babies	2
Unable to retain milk	1
Babies separated or adopted from birth..	2

Percentage of children at first visit with—

	Breast feeding.	Artificial feeding.	Mixed feeding.
1918	82.5	13.5	3.8
1919	85.8	9.7	4.4

This shows steady improvement, but the improvement in the later months when the health visitors' work begins to tell is probably greater.

Of the cases where the children were breast-fed on the first visit and the feeding was recorded after three months and six months, it was found that 82 per cent. were still breast-fed after three months and 74 per cent. after six months.

It is to the credit of the district nurses concerned that in the following districts there were no artificially-fed infants at the first visit :—Acton Burnell, Bicton and Oxon, The Bog Mine and District, Cardington, Clunbury, Coreley, Dorrington, Hodnet and Weston, Hope Valley, Market Drayton, Montford, Richards Castle, Shavington, Stanton-on-Hine-Heath, Stockton, Tilstock, Worfield Wrockwardine and Eyton.

In the following districts the percentage of artificially-fed children was 25 per cent. or over. If such excess continues special inquiries will be made :—Adderley, Clun, Clive, Diddlebury and Culmington, Edstaston and Coton, Leaton, Loppington, Lydbury North, Ruyton-xi-Towns, and Uppington.

The long tube bottle—a most insanitary method of feeding, is rapidly disappearing, and was only found in 48 cases. The use of the dummy was recorded in 446 cases—probably a considerable under statement.

The following insanitary conditions were reported by the health visitors and forwarded to the Sanitary Authorities for their attention. This is a branch of work for which the health visitor has no special training :—

Water Supply.	Want of Ventilation.	Uncleanliness.	Dampness.	Overcrowding.	Nuisances.
11	66	75	46	29	39

Maternity and Child Welfare Centres.

Name of Centre.	1st Quarter.				2nd Quarter.				3rd Quarter.			
	Infants.		Expectant Mothers.		Infants.		Expectant Mothers.		Infants.		Expectant Mothers.	
		Total		Total		Total		Total	New cases.	Total	New cases.	Total
Wellington ..	..	375	..	11	..	375	..	14	48	481	8	22
Bridgnorth ..	..	399	..	4	..	317	..	1	51	429	..	1
Ironbridge ..	..	576	..	4	..	524	..	6	38	601	3	27
Oakengates.. ..	..	278	..	9	..	318	..	6	68	452	4	17
Oswestry	..	144	..	3	..	182	..	3	40	242	4	5
Whitchurch ..	..	197	..	4	..	284	..	5	Not stated	252	..	10
Ellesmere	..	..	..	..	..	72	..	1	5	93	..	..
	..	1969	..	35	..	2072	..	36	250	2550	19	82

Name of Centre.	4th Quarter.				Total.			
	Infants.		Expectant Mothers		Infants.		Expectant Mothers.	
	New cases.	Total	New cases.	Total	New cases.	Total	New cases.	Total
Wellington ..	39	478	6	25	87	1709	14	72
Bridgnorth ..	53	444	5	8	104	1589	5	14
Ironbridge ..	62	647	10	31	100	2348	13	68
Oakengates ..	73	482	3	11	141	1530	7	43
Oswestry	39	199	..	..	79	767	4	11
Whitchurch ..	10	312	2	16	10	1045	2	35
Ellesmere	9	98	..	..	14	263	..	1
	285	2660	26	91	535	9251	45	244

During the first two quarters the new cases were not separately stated.

The centres are open once a week, except for Ellesmere, which is open once a fortnight. The Health Visitors and Child Welfare Medical Officers are always in attendance.

The new premises for all County Council Health Services are now being occupied at Oswestry, Whitchurch, Wellington and Ludlow; and a centre has been opened at Newport on the premises of the Nurses' Home. The ante-natal work is being developed, and amongst other things it is hoped that expectant mothers and young children suffering from venereal disease will be got under efficient and continued treatment.

Midwives are being started in connection with the Ironbridge, Oakengates and Wellington Centres.

I look upon this as a very good advance in the maternity and child welfare scheme. It should make the ante-natal work really efficient, and the help, teaching and supervision of the child welfare medical officer at the Centre should be of the utmost value to the midwife in supplementing her training and keeping her informed as to modern advances of knowledge.

Orthopaedic Scheme.

This consists of a central hospital at Park Hall, Oswestry, after-care centres at Ludlow, Oakengates, Craven Arms, Oswestry, Cleobury Mortimer, Shrewsbury, Market Drayton, Wellington, Whitchurch, Wem, Ellesmere, Ironbridge, Shifnal, Bridgnorth. and the assistance of all the health visitors in the County discovering the cases.

The following cases belonging to the County were treated in the Baschurch Surgical Home in 1919:—

Disease.	Cases paid for by the County Council.			Cases not paid for by the County Council.		
	Child Welfare, Tuberculosis and School Cases.			Child Welfare, Tuberculosis, and School Cases.		
	Under 5 years.	5—14	Over 14	Under 5 years.	5—14	Over 14
Tuberculosis of Bones and Joints	3	38	30	..	..	2
Tuberculous Glands and Abscesses ..	1	..	..	..	..	..
Rickets	12	5	..	5	..	..
Poliomyelitis	5	28	..	1	..	7
Scoliosis	..	6	..	..	..	3
Club foot and claw foot	1	..	..	..	..	3
Other deformities ..	11	21	..	1	..	2
Fractures	..	..	..	..	..	4
Other diseases	3	4	..	..	12	6
Other conditions ..	1	..	..	8	..	12
Totals	37	102	30	15	12	39

The importance of early treatment in Poliomyelitis is so great that arrangements have been made for a specially trained nurse to be sent on receipt of a wire to help the medical practitioner and afterwards to get the patient to the hospital if necessary.

The after-care centres are visited weekly by specially trained nurses from the Shropshire Surgical Home and Orthopaedic Hospital, and they are also visited by the senior Medical Officer of the Hospital once in two months. Where the centres are held on the same premises and at the same time as the child welfare centre, the Medical Officer of this centre is available for consultation.

Wellington Babies' Home.

This Home has been taken over by the County Council. It is principally for children suffering from malnutrition who would probably die if left at home. The babies are now mostly treated in the open air.

Children admitted.	Discharged.	Died.	Average number of beds occupied.
38	38	0	8

The cases were admitted for debility and marasmus (11), prematurity (4), malnutrition (14), mental deficiency (3), other causes (6).

The Maternity Home provided by the Shrewsbury Victoria Nursing Association and financed by the County and Borough Councils has been given up owing to the Nursing Association not being able to meet requirements of the Ministry of Health. Premises for a maternity home in Shrewsbury are badly wanted.

The only available accommodation in the County are 2 beds at Newport Nursing Home, and beds at the Lady Forester Trust Hospital, Broseley. They have so far met all applications.

Midwifery Service.

The year 1919 was one of great difficulty in providing midwives, and consequently in starting nursing associations.

In the matter of training and provision of midwives the County Council has acted entirely through the Shropshire Nursing Federation, the County Council bearing three quarters of the expense of training. The County Council also makes a grant of £20 towards the initial expenses of new associations.

Since the end of 1919 up to the present time 9 Associations have been formed, and Midwives have been started in connection with the Oakengates, Wellington and Ironbridge Child Welfare Centres.

The following statement showing the parishes most urgently needing midwives and grouped in 26 districts was first published in the year 1916. It is given below, and when an association has since been formed the year of formation is given.

	Association formed.
1.—Albrighton, Astley, Battlefield and St. Alkmond	—
2.—Westbury and Wollaston	1920
3.—*Church Pulverbatch* and Smethcott (*Longden*)	1920
4.—†Morville, Upton Cressett, Aston Eyre, Tasley and Astley Abbotts	—
5.—*Chelmarsh, Eardington and Oldbury	—
6.—Chetton, Middleton Scriven, Deuxhill, Glazeley, Billingsley and Sidbury	—
7.—Wistanstow, Sibdon Carwood and Halford Ecclesiastical Parish	1917
8.—Stottesdon	—
9.—Kinlet	—
10.—Hopton Wafers, Part of Cleobury Parish, Farlow, Cleeton St, Mary and Silvington	—

	Association formed.
11.—Clun	1917
12.—Newcastle and Bettws-y-Crwyn	—
13.—Clungunford, *Hopton Castle, Bedstone* and *Bucknell.*	1919
14.—Welshampton, Lyneal and Colemere	—
15.—Bitterley Ecclesiastical Parish, Hopton Cangeford and East Hamlet	—
16.—Knowbury Ecclesiastical Parish	1920
17.—Cold Weston, Heath, Clee St, Margaret, Stoke St. Milborough and Abdon	—
18.—Kinnerley and Melverley	1920
19.—Llanyblodwell and Sychtyn	—
20.—Trefonen Ecclesiastical Parish	—
21.—East Part of Oswestry Rural Parish (Morton and Oswestry Ecclesiastical Parishes)	—
22.—Badger, *Beckbury, Kemberton, Ryton* and Boningale	1917
23.—Sheriffhales, Boscobel and Tong	—
24.—*Kinnersley, *Preston-on-the-Weald-Moors and Part of Hadley*	1920
25.—Lee Brockhurst and Weston & Whixhill	—
26.—Whitchurch Rural—Western Part (Tilstock)	1917

Additional Districts formed since 1916.

The Bog Mine—parts of Shelve, Wentnor and Minsterley Parishes	1916
Hope—parts of Hope and Shelve Parishes	1917
Hopesay and Aston-on-Clun	1919
Donnington Wood Ecclesiastical Parish	1920
Child's Ercall, Hinstock and Sambrook	1920
Llanymynech—Parish of Llanymynech and parts of Moreton and Llanyblodwell Parishes	1921

Edstaston, Whixall and Coton Association has been divided into two Associations—Edstaston and Coton, and Whixall.

† By arrangement the Bridgnorth nurses take the midwifery cases in Oldbury, Eardington, Morville, Astley Abbotts, Quatford, and Tasley.

* Kinnersley is included in a district with Bolas Magna and Tibberton affiliated to the Shropshire Nursing Federation in 1918.

Medical Fees.—The fees of medical men called in by midwives under the rules of the Central Midwives Board are now paid by the County Council, so that there is now no excuse for a midwife not calling in a doctor, and he is certain of getting his fee. The County Council can recover the fees if the patient is in a position to pay. When the whole County is provided with trained midwives, there will be no reason why every woman, however poor, should not have adequate midwifery and medical attendance at her confinement.

Supply of Free Milk.—Milk is supplied free in necessitous cases. Each case is enquired into and certified by the Medical Officer of the Centre, and one of the lady helpers, and where there is no centre by the health visitor and a local responsible person. They are all scrutinised carefully at the Central Office. There can be no doubt that this is real preventive work.

OPHTHALMIA NEONATORUM.

Sixty-seven cases of ophthalmia neonatorum were notified, compared with 60 in 1918, 66 in 1917, 49 in 1916, 29 in 1915, and 20 in 1914.

In every case where a midwife was in attendance, the case was inquired into as in puerperal fever, and the midwife not allowed to attend further cases of confinement until she had disinfected satisfactorily.

The extreme importance of this disease is due to the fact that the sight may be lost if the case is not properly treated. The prevention of such a disaster is worth a great effort.

Statement showing how the confinements were attended :—

Number of cases attended by midwives	44
Number of cases attended by medical practitioners	23

How the cases were nursed :—

By nurse-midwives assisted by mothers	13
By nurses not engaged in midwifery	0
By mothers or neighbours	16
By Health Visitors	22
At Eye and Ear Hospital, Salop (4 as in-patients)	10
At Whitchurch Workhouse	2
At Oswestry Cottage Hospital	1
At Private Nursing Home, Oswestry	2
At Lady Forester's Hospital	1

Facilities for Treatment.—Sanitary Authorities have power to provide nursing and medical assistance for these cases, and under the Maternity and Child Welfare Act, 1918, the County Council is now also empowered to provide nurses.

A scheme was adopted and came into force in January, 1918, under which two nurses were appointed for health visiting and nursing of measles and ophthalmia neonatorum.

The scheme has recently been extended to the whole County and now includes Measles, ophthalmia neonatorum, whooping cough, pneumonia and influenza, and all the health visitors have been made available for attendance on these cases.

There is now an ambulance always available for bringing the mother and child to the Eye and Ear Hospital, when such a course is desirable.

The other suggestions contained in previous reports (1) that more accommodation should be provided at the Eye and Ear Hospital, so that cases might be kept in until cured, and (2) that the health visitors and nurses should receive sone training at the hospital, have not yet been carried out.

In order that no cases shall escape and in order that cases shall be notified as early as possible, and satisfactory treatment be provided, (1) all cases where a midwife sends for a doctor on account of discharge from the eyes are immediately inquired into, (2) an arrangement has been made by which the Medical Officer of Health notifies the County Medical Officer of Health at once any case of Ophthalmia Neonatorum that has been notified to him.

BACTERIOLOGICAL DIAGNOSIS OF DISEASE.

Examinations are made by the Birmingham University under an agreement with the County Council.

Quarters of 1919.	For Typhoid Fever. Widal's Reaction.		For Diphtheria.		For Phthisis.	
	Positive.	Negative.	Positive.	Negative.	Positive.	Negative.
First	0	10	17	112	28	144
Second	1	9	40	117	39	125
Third	0	16	68	166	42	125
Fourth	0	18	56	401	22	101
Whole year..	1	53	181	796	131	495
	54		977		626	

Thirty-two other disease products were examined and reported on.

VENEREAL DISEASE.

No additions have been made to the scheme described in my report for 1917. It consists of :—

(1) Provision of facilities for diagnosis in connection with the Birmingham University.
(2) Provision for treatment at—
  (*a*) The County Council Clinic, Belmont, Shrewsbury.
  (*b*) Wolverhampton and Staffordshire General Hospital.
  (*c*) Arrangements with the surrounding hospitals.
  (*d*) Arrangements by which girls without homes and suffering from venereal disease can be sent to a Home at Wolverhampton provided by the Lichfield Diocesan Society, for treatment and training; the Home also provides treatment for pregnant women suffering from venereal disease.
(3) Arrangements for supplying Salvarsan substitutes to Medical Practitioners.
(4) The formation of a Propaganda Committee as a Branch of the National Council for Combating Venereal Diseases, and the formation of nine sub-branches to cover the County.

No subsidiary clinics have so far been started.

In my report for 1918 I said :—

"Apart from the establishment of clinics there is much work to be done if our knowledge of the treatment of venereal disease is to be utilised to the utmost.

In out of the way districts it is particularly important that some scheme should be devised by which the co-operation of the private practitioner can be obtained. This is essential with regard to gonorrhoea.

Investigations should be carried out into the causes of still-births and miscarriages, with the object of getting appropriate treatment if venereal disesase exists. Investigation should be made of all mentally defectives for purposes of information and treatment if desirable. All cases of blindness and nerve deafness should be investigated for similar purposes.

Cases of congenital syphilis in school children should be made a starting point for inquiry and treatment.

An almost equally important matter is the training of the midwives in a knowledge of venereal disease, the significance of miscarriages and how to proceed. None of this work can be done merely by the establishment of clinics and the appointment of clinical officers. *The services of a special officer are required, whose business it would be, in addition to treatment at the clinics, to do everything in his power to get the persons suffering from venereal disease under treatment and keep them under treatment until cured.*

These are matters that require the utmost tact and knowledge of how to proceed, in addition to a good knowledge of the diagnosis and treatment of venereal disease.

As there seems to be no probability of getting a special officer for some time, it is intended to utilise the maternity and child welfare centres and school clinics so far as possible in dealing with these diseases amongst children and expectant and nursing mothers.

CASES OF VENEREAL DISEASE TREATED DURING 1919.

Shrewsbury Clinic.			Wolverhampton and Staffordshire General Hospital. Shropshire Patients.			Kidderminster Infirmary. Shropshire Patients.		
	Cases.	Attendances		Cases.	Attendances.		Cases.	Attendances.
Syphilis	105	793	Syphilis	17	..	Syphilis	14	..
Gonorrhoea	141	2866	Gonorrhoea	6	..	Gonorrhoea	0	..
Other conditions	34	74	Other conditions	8	..	Other conditions	1	..
Total	280	3733		31	296		15	93

Pathological material sent to Birmingham University for examination during 1919:—

Nature of Test.	Number of Tests.
For detection of gonococci ..	78
For detection of spirochetes ..	2
For Wassermann reaction ..	261

The weakest point in our provision of treatment is the small number of women treated and the impossibility with our present means of treating gonorrhoea in women satisfactorily. For this purpose in-patient treatment at an early stage is almost an essential.

The Shrewsbury Centre has not so far been utilised for postgraduate classes.

With these exceptions the Centre has been most successful.

Cleveland House, Wolverhampton.—This Hostel for women and girls without homes, from venereal disease was opened on March 3rd, 1919, and 13 Shropshire cases were treated during the year.

The Propaganda Committee.—The educational campaign in the County was continued with much vigour. Lectures were given at Shrewsbury, Wellington, Oswestry, Oakengates, Whitchurch and Market Drayton, comprising courses of lectures on "Elementary Biology and Special Problems of the Teacher," medical lectures to men and women separately, and lectures on social prevention. Addresses were also given at shops and works in Shrewsbury, Lilleshall, Oakengates and Whitchurch. Short paragraphs were inserted in the local newspapers pointing out the dangers of the diseases, and literature was distributed freely at the lectures and in other ways. Communications were sent to medical men, midwives, chemists and voluntary bodies, giving information on various matters. Great stress was laid upon the provision of facilities for recreation, both physical and mental, in the prevention of venereal disease, and all the Urban Councils in the County were communicated with and urged to provide much extended facilities for recreation.

PREVENTION AND TREATMENT OF DENTAL CARIES.

Under the Education Committee a scheme of conservative treatment of teeth of school children has been started, which should in a few years be productive of marked results. It is the intention that this scheme shall eventually prove the beginning of a public dental service.

This does not lessen the duties or responsibilities of the Public Health Committee in forwarding the real prevention of decay of teeth by physiological methods in every possible way. This work is being carried out through the County Health Lecturer, the Health Visitors, whole-time and part-time School Nurses and the Child Welfare Medical Officers. For further details reference should be made to pages 28 and 29 of the report for 1916.

Departmental Committee appointed to inquire into "The Extent and Gravity of the Evils of Dental Practice by Persons not qualified under the Dentists Act" has come to the following conclusion :—

"In conclusion, we wish to state very strongly that, in our opinion; the State cannot afford to allow the health of the workers of the nation to be continuously undermined by dental neglect. Steps should be taken without delay to recognise dentistry as one of the chief, if not the chief, means for preventing ill-health, and every possible means should be employed for enlightening the public as to the need for conservative treatment of diseased teeth. The dental profession should be regarded as one of the outposts of preventive medicine, and as such encouraged and assisted by the State. Treatment should be rendered available for all needing it."

BODY AND HEAD LICE—AND FLIES.

Recent investigations showing that typhus fever, relapsing fever and trench fever are spread by lice, establish on a firm public health basis the necessity for energetic measures for getting rid of these conditions.

Other proved instances of the transmission of disease by insects are the communication of plague by fleas and malaria by mosquitos. The only inference that can be drawn from these main facts is that we must wage intensive warfare against all insects that feed on human blood.

Of perhaps equal importance are the measures to prevent contamination of food by flies.

We have had a vivid illustration of the harm done by lice in the war, not only by the actual disease caused but by the intense discomfort and no doubt the general lowering of health in consequence.

A campaign against lice should now occupy a prominent place in our public health measures.

Amongst other things such a campaign means an efficient disinfector and cleansing station in every district.

ALCOHOL AND PUBLIC HEALTH.

I again repeat the statement on this subject that appeared in my report for 1917 in the hope that the matter may be brought more prominently before the public, and particularly before the school teachers.

The interim report of the Advisory Committee appointed by the Central Control Board (Liquor Traffic) will give that impartial statement regarding the effect of alcohol upon the human body and on society, which is so necessary as a basis for any action by a public health authority. Hitherto the public have been bewildered by the one-sided statements of enthusiasts for reform and of their opponents.

In this report the subject is set out in a simple and yet scientific manner. It may, with confidence, be accepted as a correct statement of fact, and no effort should be spared to make its main conclusions widely known.

Undoubtedly the abuse of alcohol is a factor in public health of the widest importance. It enters into almost all the large public health questions. To mention one only—the effect of bad housing on the production of alcoholism, and the effect of alcoholism in the production of bad housing conditions, is one of the most interesting examples of the cumulative result of two adverse conditions acting and re-acting upon one another.

The abuse or misuse of alcohol affects the health of the public broadly in five ways :—

(1) It directly affects the physical and mental health of the individual, frequently causing disease, lower vitality and premature death.

(2) In a large number of families the expenditure on alcohol leaves an insufficient income for feeding and clothing the family, with the resultant evils of underfeeding, under-clothing, etc.

(3) The standard of cleanliness and general household management is greatly lowered in a house where alcohol is consumed in excessive quantities, particularly if this excess is committed by the housewife.

(4) The abuse very materially lessens the productive power of the nation, on which efficient housing, feeding, clothing and all other material comforts and services entirely depend.

(5) The expenditure on the production of alcohol in the present excessive quantity is a considerable strain upon our productive power.

All our efforts with regard to public health will fail unless production is maintained and increased, for it is on increased production that the possibility of providing better housing and sanitation, better food and clothing, better education and better medical supervision and attendance entirely depend. It is for this reason, as well as the direct poisonous effect of excess of alcohol upon the individual, that this subject is one of supreme importance to the nation, particularly at the present time.

The statement contained in the preface to the report that the amount spent on alcohol in this country is nearly 50 per cent. greater than the traffic receipts of the whole railway system, including both goods and passengers ; more than double the expenditure on bread, more than equal to the expenditure on meat and, before the war, it was approximately equal to the total revenue of the State, and was more than eight times the total amount required for interest on the National Debt, shows what immense possibilities there are.

There will, no doubt, be great divergence of opinion as to the social action that is desirable, but most responsible persons will acknowledge that some action is necessary, and that the first step should be an attempt to educate the people with regard to the nature of alcohol, and the results of its abuse upon the individual and the nation.

WATER SUPPLIES.

The following are the principal references to water supplies in the annual reports :—

Atcham Rural.—" The supply to Meole Brace Village from the Colliery at Moat Hall was under consideration and investigation during the year on account of enlargement and replacement of supply mains becoming necessary. A careful investigation into the sources of supply and methods of collection of the water was made, and at my suggestion Professor Delépine was called in to visit and examine the conditions and to make chemical and bacteriological analysis. This personal examination was made in August, and the result as shown by Professor Delépine's report was satisfactory. The recommendations for protection of the supply were put in hand and have been carried out."

Bishop's Castle.—" For a short period of about three weeks in the summer, the upland stream ran low and it was necessary to cut off the town supply during the night. The pump at Maesgwyn reservoir was required on fourteen days."

Bridgnorth Urban.—" The addition of " Chloros " is apparently a satisfactory method of destroying organisms of pollution. The water is not dechlorinated before being supplied to the town."

Church Stretton Rural.—" *All Stretton Water Supply.*—During the year complaints were received of want of proper water supply in a few houses, due to a defective main. After considerable delay on the part of the local water company, and upon strong representations by the Council, the matter was put right by the company with labour assistance given by the Council's Surveyor."

Cleobury Mortimer Rural.—" The mining village of Highley is supplied for the lower part by a well, situated near the river, it is pumped up to a tank above the houses. The quality of the water is good and the supply constant. It is a private supply belonging to the Highley Mining Company. Two outlying groups of houses at Clee View Terrace and the Garden village have each a supply, which has recently been taken over by the Company. As the houses at the Garden village have only recently been let, this is more or less on trial at present. The quality of the water is good.

" In the majority of villages the needs in this respect are fairly well met, but there are a number of scattered cottages, especially on the Clee Hill, where water has to be carried a considerable distance, especially after a spell of dry weather."

Drayton Rural.—" The spring selected for the supply of Norton-in-Hales has been tested and found to be constant and sufficient in quantity for supplying the houses in the village."

Ludlow Urban.—" Samples are submitted for bacteriological analysis periodically to Professor Delépine of Manchester University, who states that it is a very suitable water for domestic purposes."

Ludlow Rural District—Craven Arms.—" The amount of water that can be raised by the existing plant is about half the amount required. The engineers, Messrs. Willcox, Raikes and Reed, who have been consulted, are at present estimating the yield from springs at Dinchope, with a view to a gravitation scheme. The shortage of the supply and the dirty condition of the water due to constant stoppages are very detrimental to the health of the town, and a decision between gravitation scheme and the Borehole supply should be speedily come to and the work necessary taken in hand at once. The cost no doubt will be a serious burden on the town, but the present very inefficient supply is that already.

" The sale of Earl Plymouth's property on the Clee Hill, has resulted in the formation of a Committee for the management of the water supply. The water is derived from springs on the side of the Clee Hill near the railway, and is received into two collecting tanks and piped to a number of cottages and small holdings in the neighbourhood and at Knowbury. I am informed that there is a surplus, that could supply any houses the Council desired to erect on the Ludlow and Clee Hill road near the fifth milestone. By efficient management I believe this supply could be made available for many cottages on the Angel Bank, that have now to carry all their water a considerable distance.

" The higher levels of the Clee Hill are the most seriously hampered by the lack of water, and the building of houses has been practically stopped on account of this."

" The water supply of Delbury School has at various times been unsatisfactory, and the well is badly placed under the school and has been contaminated from the drains. The owner of the private supply of excellent water has now agreed to a pipe being laid on to the school."

Newport Rural.—" At Lilleshall a well was sunk by the Duke of Sutherland in the Bunter Beds, the water being raised by a wind engine to reservoirs on Lilleshall Hill. This supplies the village, Muxton, Donnington and the area of Donnington Wood. The two reservoirs hold 404,000 gallons.

" Since the sale of the Duke of Sutherland's property in the parish, these works have been offered for sale and the Council are in negotiation for the purchase. The supply is a most important one for the district, and should be in the hands of the District Council."

Oakengates Urban.—" Except at Ketley Bank the supply has been efficiently maintained and generally constant. It has been turned off at night in certain areas, with a view to improving the pressure at Ketley Bank. Its quality is excellent for domestic purposes. The service at Ketley Bank has been far from satisfactory, and the report of Mr. Midgeley Taylor, the waterengineer called in by the Council, shows pretty conclusively that improvements will be necessary to the pumping plant and reservoir before the difficulty can be satisfactorily solved. Whilst the Duke of Sutherland is apparently unwillingly supplying the district with water, not much improvement can be looked for. There is a certainty that considerably more water will be required in the near future from the abolition of privies and substitution of water closets, for the supply of the new houses to be built under the present housing scheme, and for those that are not at present connected with the main, but depend on wells.

" The unsatisfactory state in regard to Ketley Bank has now lasted about five or more years, and must undoubtedly be detrimental to the health of that area. It therefore would appear that the purchase of the Hilton Bank Wells and Reservoir by the Council would be a wise procedure, and it is urgently necessary in view of the insanitary conditions resulting from the present uncertain supply. The Ketley Bank Schools are without water on many days, the closets and urinals unflushed, and several houses in the neighbourhood in a similar plight."

Oswestry Rural.—" We have a scheme for purifying the water from the brook, which I hope to see carried out without much further delay."

Wellington Urban.—1. " Water is obtained from three sources. From the springs and streams running off the Wrekin and Ercall Hill down the valley between the two and the Wrekin Reservoir. The chief feeders cross the Willowmoor Farm, and it is here liable to some contamination fron cattle and sheep grazing. Special arrangements have been made for dealing with the drainage from the farmhouse and buildings by means of a cesspit, which is periodically pumped out and carted away. This requires very careful supervision, because in times of heavy rain it overflows and the sewage finds its way into a dish that joins the main feeder of the reservoir. The main stream passes through wooded country alongside the district road for about a quarter of a mile and picks up a good deal of vegetable matter in its course. The feeders for a considerable area at the back of the Wrekin were diverted and enter the by-walk.

" The reservoir holds, when full, 21,000,000 gallons, which is about 100 days' supply. It passes to a smaller reservoir and on to the sand filters. These are three in number, two are generally in use and one resting and being cleansed. Thence it passes to a brick and concrete service reservoir holding one day's supply, and from which the distributing main runs to the town.

2. " The second source of supply is from springs in the Steeraway and Lime Kiln Woods. The feeders run through the woods for half a mile and are collected in a pond from which the water is piped passed the Steeraway Farm to the reservoirs, two in number. These reservoirs are connected with the main from the Wrekin near the Old Hall, and enable pressure to be maintained at the highest part of the area.

"The water from this source contains a large number of vegetable organisms at times, and it is proposed to remove this by means of pressure filters in the near future. The water was analysed by Professor Delèpine of Manchester University during the year, and pronounced to be a suitable water for domestic use.

3. "The Borehole in Slang Lane gives the third source of supply. When first put down this plant pumped 9,000 gallons per hour, but for some time not more than 5,500 have been raised. The water is pumped directly into the distributing main from the Wrekin service reservoir.

"During the last quarter of the year the supply from Wrekin was so short that pumping was necessary daily, and the water was cut off at night from 7 o'clock to 6 in the morning. Following a similar experience in previous years, the Council decided to sink a further borehole about 40 yards north of the existing one, and this work is at present in progress.

"The demand for water must of necessity increase largely in the near future, seeing that more than a hundred new houses are planned for erection in the immediate future in the water area, and double this number are required to complete the housing schemes of the urban district and the parishes of Ketley and Hadley, which are dependent on this supply."

Wellington Rural.—"Parts of Hadley and Ketley are in the Wellington Urban Water Area, and receive their supply from that authority's waterworks. At Hadley about 80 per cent. of the houses in the village and on the line of the mains from Wellington have their water from this source, and the remainder are in possession of wells. Practically all the houses are connected to the mains at Ketley village and Ketley Brook.

"Other parts of Ketley Parish along the Lawley Bank and Lawley Village are supplied by Stand pipes from the Harrington Wells belonging to the Borough of Wenlock, the water passing through Dawley mains to a small reservoir at Dawley Bank. The water from both these public sources is of good quality and analysed periodically. The Wellington supply to Ketley and Hadley is as a rule constant, but was turned off at night for a period in the autumn as a precautionary measure when the level of water in the Wrekin reservoir became very low. During this period also the pressure at the higher parts of Ketley was sometimes very poor. The Wellington Urban Council are at present engaged in sinking a second bore-hole, which, it is expected, will give a much larger amount of water than the previous bore-hole and will enable them to make the service constant throughout this year. This will enable the Council to abolish the remaining wells in the populous part of Hadley, which can only be a source of danger, where so many privies exist on a porous subsoil."

Wenlock Borough.—"In Much Wenlock some scarcity of water is experienced at times in the well supply to the town, and the Committee in 1919 had under consideration again the possibilities of increasing the supply by adding water from the 'Spout' in Stretton Road. The Committee had the water analysed in August bacteriologically, by Professor Delépine. It came out with the low total number of bacteria of 16 per gramme. Bacillus coli, however, was found present in one gramme, and as it appeared probable that this contamination might arise from cattle present in the field over and around the spring, the Committee had the outlet area fenced off and a well shaft built from the spring to the surface. The question of development was then left for further analyses to be made. An analysis by Professor Delépine in November showed considerable improvement, the B. coli not being found in 15 grammes of the water."

Whitchurch Rural.—"Ash Village has water laid on by the Council, from a private wind engine and tank supply, to a pump and a stand pipe at two points. In times when there is no wind the supply has run short, and the Council has had to send a steam pump in order to fill the tanks."

"The Camp has a good water supply from a boring, with pumps and reservoirs. I have pointed out to the Council the desirability of utilising this supply if possible, when the Camp is abandoned, for the supply of the area surrounding it, and especially for the better supply of Ash and Tilstock villages, each about a mile distant from the Camp in different directions. The Council has the matter under consideration."

EXCREMENT DISPOSAL.

The following extracts from the Annual Reports deal with this matter :—

Bridgnorth Urban.—"There are many houses with one w.c. in common for two or more houses. There are 327 houses which have between them 139 w.c.'s. In the rural portion of the Borough earth closets and vault privies are the rule, and are emptied by the tenants."

Cleobury Mortimer Rural.—"There is no public scavenging done in the district either for ashes or night-soil. The tenants make their own arrangements. The Inspector has had to serve numerous notices to remedy nuisances arising from offensive accumulations, the result of the unsatisfactory way the present system works. Some arrangement is, I think, advisable for doing the scavenging by contract at Cleobury Mortimer."

Dawley Urban.—"The number of water closets is 138, earth and pan closets 136, and privies 1,044. Ten privies were converted into earth closets during the year and two into water closets. In the absence of outfall works to deal with sewage matter, the policy of the Council is not to press for conversions into water closets, but to get all privies with suitable surroundings made into pan or earth closets."

Ludlow Urban.—"All the houses in the centre of the town are provided with water closets, and but few privies remain on the outskirts. These until recently have been reduced yearly, but owing to the lack of labour conversions have not been possible during the year."

Newport Urban.—"A total of 56 conversions were carried through during the five years 1915—1919, and the figures at the end of the year are therefore :—w.c.'s 672, privies 86, pail closets 18."

Oakengates Urban.—"The Sanitary Inspector states that 41 water closets were installed during the year and four pans and 28 privies abolished. This leaves the position at the end of the year as follows :—974 privies, 305 pans, and 601 water closets. At the present rate of conversions it will take forty years to abolish privies and pan closets in the district. The completion of the housing scheme will enable a large number, probably one hundred and fifty, to be done away with, but there remains a very considerable surplus that owing to their insanitary condition could be dealt with at once as nuisances, and it seems advisable to press for their conversion at once, in view of the unwieldly problem that the scavenage of the district has recently become. An attempt should be made to clear the district in sections, and those houses dealt with that are in good sanitary condition, and those that may be closed and demolished in the near future left over for the present and the privies repaired."

Shifnal Rural.—"At Shifnal there are 404 water closets, 80 privies and 26 pan closets, and at Albrighton 50 water closets and 100 privies. Eleven privies were converted into water closets during the year, and this sanitary improvement is pressed for whenever possible in both places."

Wellington Urban.—"A survey of the closet accommodation was undertaken by the Surveyor during the year, and 276 privies were found to exist in the urban area, and they serve about 390 houses. Eighty-nine of these are in bad repair and are in need of immediate conversion; 107 are in a fair state of repair; and 56 are considered satisfactory at present. Nine are not within reasonable distance of any sewer, and 14 owing to their position cannot be connected and would require to be rebuilt on at a higher level. This report was placed before the Committee, and it was considered that no useful purpose would be served by dealing with them wholesale owing to the shortage of workmen, and notice was to be served for the conversion of a few of the worst ones. In five houses this was completed during the year. On the grounds of public health, owners of property in the congested areas in the centre of the town should be compelled to convert them at once. They may be structurally in good repair, but the removal of the night-soil is a recurring nuisance to their neighbours, which can only be removed by introducing the water-closet system."

Wenlock Borough.—"The Inspector has no record of the numbers of the different types of closets existing in the Borough, but old vault privies of objectionable type are in great majority, in the towns as well as in the country areas."

Wellington Rural—Drainage and Sewerage.—"The conversion of the whole of the privies in Hadley to the water carriage system is a policy that should be actively pursued."

SEWAGE DISPOSAL AND RIVER POLLUTION.

Recommendations are made for improving the treatment of the Oakengates sewage and for a complete system of sewage disposal for Market Drayton.

Atcham Rural—Pollution of the River Rea.—"Serious complaints were received of offensive nuisance extending over several miles of the river course, due to the extensive pollution of the stream by the washings, waste and whey, from a creamery at Minsterley.

Careful investigation was made, and repeated visits paid by myself and the Sanitary Inspector, and every effort made by advice and representations to the management to abate the nuisance. Partial attempts having been made with little success to deal with the effluent on land adjacent to the creamery, the Council at last served statutory notice, and the measures then adopted, and specially the removal of the creamery to another side not directly on the stream, were successful. The effluvium from the river three or four miles below the creamery was at times intolerable during the summer when the river was low."

Whitchurch Urban—Pollution of Mile Bank Brook.—"Grave and repeated nuisance caused by the pollution of the Mile Bank Brook by waste, whey and sewage from a creamery and cheese factory, has arisen throughout 1918 and 1919.—The stream is very small at dry times, and with little fall in most of its course. Hence the putrefiable waste filled the brook and stagnated over a mile or more of its length, and the effluvium was extremely offensive, causing intolerable nuisance at times. Repeated representations were made by the Surveyor, who made every effort to get the nuisance abated, and also by myself. Statutory notices were also served by the Council, but though some temporary and partial measures were taken by the management and the conditions improved for a period, no radical improvement likely to obviate the pollution entirely was effected by the end of the year."

HOUSING.

The following extracts from the Annual Reports deal with this matter :—

Atcham Rural—Sites Acquired, Purchased, and Conveyed.

Scheme No. 2—(Montford Bridge).	Area	4	acres	24	houses to be built.
Scheme No. 3—(Ford) ..	,,	3	,,	18	,, ,,
Scheme No. 5—(Westbury) ..	,,	2	,,	12	,, ,,
Scheme No. 8—(Lea Cross) ..	,,	3½	,,	20	,, ,,
Scheme No. 10—(Stapleton) ..	,,	.818	,,	4	,, ,,
Scheme No. 13—(Shrawardine) ..	,,	·5	,,	4	,, ,,
Scheme No. 15—(Plealey) ..	,,	·5	,,	4	,, ,,
Scheme No. 16—(Pitchford) ..	,,	·5	,,	4	,, ,,

Sites Acquired, Purchase Price Settled, but not Conveyed.

Scheme No. 1—(Bicton Heath) ..	Area	7.158	acres	36	houses to be built.
Scheme No. 4—(Wattlesboro) ..	,,	2	,,	12	,, ,,
Scheme No. 11—(Cross Houses) ..	,,	3·5	,,	20	,, ,,
Scheme No. 14—(Alberbury) ..	,,	·5	,,	4	,, ,,

Sites not Settled, Negotiations Proceeding.

Scheme No. 6—(Hanwood) ..	Area	4	acres	24	houses to be built.
Scheme No. 9—(Pontesbury Village)	,,	7	,,	40	,, ,,
Scheme No. 12—(Atcham) ..	,,	2	,,	12	,, ,,
Scheme No. 7—(Welbatch) ..	This scheme has been abandoned.				

Schemes that should be completed by end of July, 1920.

Scheme No. 10 (Stapleton) ..	4 houses	These are the only schemes on which building has commenced to date.
Scheme No. 13 (Shrawardine) ..	4 ,,	
Scheme No. 15 (Plealey) ..	4 ,,	
Scheme No. 16 (Pitchford) ..	4 ,,	
Total	16	

One contract has been signed to include the building on all of the following schemes :—

Scheme No. 1 (Bicton Heath)	Building will be commenced on these sites at an early date.
Scheme No. 3 (Ford)	
Scheme No. 5 (Westbury)	
Scheme No. 6 (Hanwood)	
Scheme No. 9 (Pontesbury Village)	
Scheme No. 11 (Cross Houses)	

Bishop's Castle Borough.—" As regards the Council's scheme prepared in 1919 for new housing, the number of new houses proposed is 48, permission for a loan being obtained on condition that a scheme for the whole number should be put in hand forthwith. A site of 3¼ acres in Union Street was acquired and conveyed. An adjoining area of 2¾ acres was under negotiation in order to secure the 6 acres necessary. No further progress with the scheme had been made early in the present year beyond adoption of the lay-out plan."

Church Stretton Urban.—" The Council's scheme is for 20 houses, on one site of about two and a half acres, the whole scheme to be carried out at once. The site is good, and the houses are to be in pairs, twelve being A type houses, and eight being B, or parlour type. The site had been purchased and conveyed early in the present year, and plans approved, and tenders called for."

Church Stretton Rural.—" Early in the present year a programme of 46 new houses had been agreed on, and an immediate scheme for building 14 arranged. Sites had been selected and price agreed, and plans passed for four at Little Stretton, four at All Stretton, four at Leebotwood, and two at Longnor. The architect had been instructed to prepare plans for a further instalment of eight houses, two each at Hope Bowdler, Eaton, Rushbury and Longville."

Cleobury Mortimer Rural.—" The population at the 1911 Census was 6,976, and the estimated population for the year 6,629. An increase due to the letting of the houses at Highley may be taken at about five hundred. A number of families from other parishes in the district may be expected to move into them, but the majority will no doubt be occupied by those that have to live outside although working at the collieries. There will still be a great shortage of houses, most apparent at Clee Hill, and evidenced by the overcrowding that is so prevalent, and the condition of some of the cottages at present in occupation. Twelve cases of overcrowding were reported during the year, the greater part of the overcrowding is due to the lack of bedroom accommodation in growing families, and in addition to the small cubic space the bedrooms contain owing to the sloping roof and want of height. There are a good few instances where members of the family have married and are obliged to continue to live with the parents for the want of vacant houses."

Clun Rural,—" As regards the Council's building scheme, the position early in the present year was the adoption of a programme of 80 new houses, of which the first instalment of about 30 was proposed to be proceeded with. These were :—Lydbury North 6, Clun 8, Colebatch 4, Aston-on-Clun 4, Chapel Lawn 4, Newcastle 4. Agreements were entered into for sites at Chapel Lawn, Newcastle, Aston-on-Clun, and Hopton Castle. In other cases difficulties as to sites have been experienced, and some which were provisionally approved have had to be abandoned. Difficulties as to sites had occasioned delay in the case of Clun and Lydbury North."

Dawley Urban.—" There are no shortage of houses for persons who are employed in the district, but the district is conveniently situated for men working in the various works of the Lilleshall Co., and the Kemberton Pits are on the borders. About 600 miners live in the district and work either at Kemberton or one of the Lilleshall Pits. The Council take the view that there is no shortage of houses for the men who work in the district, and that they are not called upon to provide for others.

" They are prepared to build a small number of houses, if it could be done at a reasonable cost and could be let at a rent that the inhabitants could pay. The present rents are from 2/- to 4/- in the large majority of cases, and a rent of 15/- and upwards for new houses could not be obtained.

" *Overcrowding.*—At the 1911 Census in the district 18.4 per cent. of the population were living in what was regarded by the Registrar-General as overcrowded conditions, whilst the figure for the urban districts of Shropshire as a whole was 10.0. A recent enquiry proved that in forty houses there were two families living. The chief overcrowding however, is where the family in the course of years has out-grown the two-bedroomed cottage, it is very seldom due to lodgers.

" *Fitness of Houses.*—General Standard of Housing. The houses are for the most part of old construction, but there has been a steady improvement in recent years. A large proportion of the houses were built when Iron and Coal Mining and extensive Ironworks made the district a very prosperous one. They are approaching a hundred years old, without damp course, troughing, and often drainage ; they are scattered in isolated groups over the district, out of reach of the sewers. They are, as a rule, without through ventilation and sometimes of barrack type. The brickwork, mortar and woodwork is often perished and accommodation very restricted."

Drayton Rural.—" The net estimate of housing needs to meet the shortage is 120 :—

(*a*) Unsatisfied demand for houses (taking account of growth of population, overcrowding, etc.) 30.

(*b*) replace other dwellings which are unfit for human habitation and cannot be made fit, 43.

(*c*) replace other houses which, although they cannot at present be regarded as unfit for human habitation, fall definitely below a reasonable standard, 47 ; total 120. The Council resolved to erect 108 houses on 21 sites, comprising about 15 acres of land, in the parish of Cheswardine, Childs Ercall, Hinstock, Hodnet, Moreton Say, Norton-in-Hales, Stoke-upon-Tern, Sutton-upon-Tern, and Woore. The average number of houses per acre is 8. The cost of the sites, building, fencing, etc., is estimated at 100,843.

" *Fitness of Houses.*—As the Sanitary Inspector was only demobilised from the Army in February, few houses were inspected under Housing (Inspection of District) Regulations, 1910. The number of houses inspected was 9, all of which were thought to be unfit for human habitation. In two of the houses the defects were remedied without closing orders, and seven are still under consideration."

Ludlow Urban.—" *Fitness of Houses.*—Many are far below the standard of healthy habitations, and the undue prevalence of tuberculosis and high death-rate some of the more obvious results."

Ludlow Rural.—" There is at present a general shortage throughout the district, due to the absence of building during the last few years. The Council propose to meet this by building in a number of parishes, and sites have been acquired and in some cases contracts let for 4 at Bromfield, 4 at Culmington, 2 at Overton, 2 at Middleton, 2 at Bitterley, 2 at Abdon, and 2 at Richard's Castle. The Clee Hill and Craven Arms sites, where the demand is most urgent, have not been at present decided on."

Market Drayton Urban.—" (*a*) Unsatisfied demand for houses (taking account of growth of population, overcrowding, etc.) 31.

(*b*) Replace other dwellings which are unfit for human habitation and cannot be made fit, 29.

(*c*) Replace other houses which, although they cannot at present be regarded as unfit for human habitation, fall definitely below a reasonable standard, 20 ; total 80. The Council have adopted a scheme for the building of 80 houses upon about 12 acres of land in Alexandra Road. Twenty of these houses are now in course of erection."

Newport Urban.—" Fifty houses have only one bedroom. The Council have selected two sites and are proceeding with a scheme for the erection of houses, the total number proposed being fifty.

" *Fitness of Houses.*—Fifteen are considered unfit for habitation and will be represented for closure when the new houses are erected the others, about fifty in number, are much below the standard of healthy dwellings, most of them being back-to-back, and seriously lacking in air space around."

Newport Rural.—" It is proposed to erect 14 at Edgmond and 30 near the village of Lilleshall, and a number not yet decided on in the industrial part of Lilleshall, that is, at Donnington Wood and Muxton.

" *Overcrowding.*—Four cases were dealt with during the year, generally by removal into larger houses as they become vacant, or the removal of lodgers. But the bulk of the overcrowding admits of no remedy until more three-bedroomed houses are built. It is caused by gradually increasing families living in houses of two bedrooms, and is exceedingly common throughout Donnington Wood.

" *Unhealthy Areas.*—Bye-laws relating to houses are not in existence in the district, they should, I think, be adopted before private building is resumed.

"The Surveyor and I have had several conferences with the Manager and Estate Agent of the Lilleshall Co. This has resulted in 12 being voluntarily closed, 12 re-constructed and 14 put in thorough repair.

"No representations for closure were made to the Council during the year. A considerable number are held over till there is a prospect of getting the tenants out."

Oakengates Urban.—"There is a deficiency of about 100, and another 150 may be necessary to replace houses that are incapable of satisfactory repair.

"The Council has taken steps to acquire land in three localities that will be sufficient for 200 houses, and are at present seeking tenders for 70 houses on one of the sites.

"*Overcrowding.*—According to the Census about one-sixth of the population are living under overcrowded conditions as defined by the Registrar-General, *i.e.*, more than two persons per room.

A considerable addition to the number of three and four bedroom houses in the district is the only effective remedy.

"*Fitness of Houses.*—The Lilleshall Company has completed during the year the reconstruction and thorough repair of about 50 houses at Snedshill."

Oswestry Urban.—"Our report already laid before you included the condemnation of 6 houses; 18 dwellings to be converted into 9, and 18 defective houses which could be made fit for habitation. It was noted that there were 14 houses non-occupied as a result of previous action on the part of your officers which would otherwise have been added to the list of condemned.

"Twelve cases of overcrowding were discovered, some not being of a serious character. Most of the cases referred to above could only be dealt with when additional housing accommodation has been provided."

Shifnal Rural.—"The Council scheme includes the erection of about 30 at Shifnal and 20 or more at Albrighton. This will enable them to test the demand for cottages at higher rentals, before they deal with other parishes that have asserted their need."

Wellington Urban.—"(1) There are approximately 1,700 houses in the district, of which number about 1,300 are occupied by the working class. There were no workmen's houses built during the year, but 22 are in course of erection.

(2) The estimated population is 7,556, a decrease of nearly 500 from the pre-war population. An annual increase of 50 yearly may be anticipated, and this will be added to as the birth-rate resumes its normal proportions.

(3) There is at present a very considerable unsatisfied demand for houses, and a hundred, including those in course of erection, would, I believe, be rapidly absorbed.

Furthermore, 50 are required to replace houses, which are, for various reasons, unfit for habitation, and cannot be made so."

Wellington Rural.—"The Council propose to meet this condition by building 150 houses, 50 of which will be built in Hadley."

Whitchurch Urban.—"The Surveyor and Sanitary Inspector in 1919 re-surveyed all the older and poorer dwellings, most of which I visited with him. Upon our suggestion, the Council in October adopted a building scheme for 60 new houses and proceeded with the investigation of sites. Early in the present year progress had been made to the purchase of an approved site in Alkington Road, of approximately 4½ acres, a lay-out had been approved and plans adopted for a first instalment of 14 houses, type A, and 10 houses, type B.

"The improvement of the conditions of housing constitutes beyond any doubt the most important question before the Council at the present time, as regards the health and betterment of the population, and I would urge the necessity of making the fullest use of the Council's powers and opportunities for this purpose. Defects of housing lie at the root of many of the problems of the health and well-being which are seriously engaging the attention of the Country; among others those of Maternity and Child Welfare, Prevention of Tuberculosis, and in general the improvement of national physique."

The following is a statement of the present position of the Housing Schemes in the County, as furnished by the Commissioner, January, 1921 —

COUNTY OF SALOP HOUSING SCHEMES.

Local Authority.	No. of Houses required immediately.	No. of Houses required eventually.	No. of Houses definitely approved.	No. of Sites.
Bishop's Castle Borough ..	48	Nil.	Nil.	2
Bridgnorth Borough	32	48	Nil.	1
Ludlow Borough..	22	28	22	1
Oswestry Borough	50	50	50	1
Shrewsbury Borough	359	199	359	2
Wenlock Borough	6	248	Nil.	2
Church Stretton U.D.C. ..	20	Nil.	20	1
Dawley U.D.C.	143	98	Nil.	3
Ellesmere U.D.C.	20	Nil.	20	1
Market Drayton U.D.C. ..	80	Nil.	60	1
Newport U.D.C.	40	62	28	1
Oakengates U.D.C.	254	Nil.	217	3
Wellington U.D.C.	51	33	22	1
Wem U.D.C.	55	Nil.	28	1
Whitchurch U.D.C.	24	44	Nil.	1
Atcham R.D.C.	160	391	160	14
Bridgnorth R.D.C.	12	Nil.	Nil.	3
Burford R.D.C.	6	Nil.	Nil.	2
Chirbury R.D.C.	12	Nil.	Nil.	6
Church Stretton R.D.C. ..	26	20	14	10
Cleobury Mortimer R.D.C. ..	16	34	14	3
Clun R.D.C.	56	64	Nil.	21
Drayton R.D.C.	120	Nil.	118	21
Ellesmere R.D.C.	24	Nil.	14	4
Ludlow R.D.C.	28	52	18	10
Newport R.D.C.	198	Nil.	Nil.	6
Oswestry R.D.C...	204	57	134	14
Shifnal R.D.C.	75	Nil.	Nil.	2
Teme R.D.C.	7	Nil.	Nil.	1
Wellington R.D.C.	94	56	51	17
Wem R.D.C.	62	Nil.	32	14
Whitchurch R.D.C.	36	Nil.	36	6
P.U.S.				
"Sentinel" Garden Suburb ..	101	Nil.	101	1
Total	2441	1484	1518	177

The schemes deal fairly adequately with the acute housing shortages, and if it had not been for the extreme difficulty of building, this shortage would now have been to a great extent relieved. As it is, only a very small number of houses are completed or approaching completion.

MIDWIVES ACT.

Routine Work under the Act:—

Year.	Number of Midwives practising in the County in June of each year.	Number of Visits paid.	Notifications of having sent for medical help.	Notifications of Still-births		Notifications of death of mother or child with no medical man in attendance.	Notification of Artificial Feeding by Midwives.
				By Midwives	By Parish Clerks.		
1917	251	889	427	55	62	5	..
1918	234	477	478	73	59	8	..
1919	227	482	519	56	88	16	57

The returns sent in by the certified midwives, although incomplete, show that they attended 2,869 births in 1919, out of a total of 4,264, leaving less than 1,395 or 32 per cent. to be attended by medical men and uncertified midwives.

Sending for Medical Help by Midwives.—An analysis of the reasons for sending for medical help has been made and is given in the following statement. The information available is frequently insufficient.

For Mother.

During pregnancy		33
Haemorrhage	13	
Threatened abortion	10	
Accident	2	
Varicose veins	7	
Convulsions	1	
At Labour		335
Premature labour	9	
Uterine inertia and prolonged labour..	154	
Abortions, miscarriages and still-births	39	
Abnormal presentation	21	
Placenta praevia..	1	
Haemorrhage	15	
Convulsions	2	
Ruptured perinaeum	67	
Adherent placenta and retained membranes	26	
Other causes	1	
After labour		45
Rise of temperature	25	
Other causes	20	
For Child		104
Feebleness	41	
Malformation	9	
Discharge from eyes	49	
Other causes	5	

So far it has not been possible to make systematic inquiries into still-births through the health visitors, but it is hoped that this will shortly be done.

Analysis of the 56 notifications of still-births sent in by midwives show that—

22 were at full time; 31 premature; in 3 no statement.

The condition of the child pointed to—

Death during labour or shortly before in 14; death some time before labour in 33; in 9 there was no indication given.

The presentations were:—head 31, breech 6, hand 1. In 18 cases the presentations were not mentioned.

The sex of the children was as follows:—males 28, females 27; 1 not stated.

These figures, although incomplete, are of some value in showing the number of children that might have possibly been saved if skilful attendance had been available at the time of confinement.

The prevention of still-births is a part of the general question of the care of women during pregnancy, and will receive attention under the scheme of Maternity and Child Welfare.

As a proportion of cases of miscarriages and still-births are due to venereal diseases and can be prevented by suitable treatment from occurring in subsequent confinements, it is most important that inquiries should be so directed that these cases shall have appropriate treatment. These inquiries, however, need to be conducted with the greatest care, and can only be made by or with the consent of the medical attendant. All a midwife can do is to advise the patient to consult her medical attendant or to attend at a welfare centre. The question of obtaining specimens for pathological examination from the placenta or maternal blood is receiving consideration. When it is sufficiently realised that a pregnant woman suffering from syphilis, if put under complete treatment, will give birth to a healthy child instead of to a still-born child, or a child that will die in a few months or suffer from very serious disability throughout life, every facility for discovering and treating these cases will be insisted upon.

This work may be helped forward by analysing the notification of still-births and miscarriages that have occurred during the last few years.

Puerperal Fever.—Twenty cases were notified, compared with 12 in 1918. Five cases were attended by trained midwives, and 15 by medical practitioners alone.

Present Supply of Midwives.—In June, 1920, there were 240 midwives registered as practising in the County, compared with 227 at a corresponding period in 1919.

MIDWIVES GROUPED ACCORDING TO NUMBER OF CONFINEMENTS THEY ATTENDED IN 1919.

(*a*) TRAINED MIDWIVES.

Number who have attended	no confinements	26
" " " "	less than 10 confinements	88
" " " "	between 10 and 20 confinements	49
" " " "	" 20 and 30 "	24
" " " "	" 30 and 40 "	4
" " " "	" 40 and 50 "	4
" " " "	" 50 and 60 "	6
" " " "	" 60 and 70 "	3
" " " "	" 70 and 100 "	6
" " " "	" over 100 "	1

No midwives were brought before the Local Supervising Authority during the year.

The number of midwives trained or taken over during the four years was as follows:—

	Trained by County Council and Shropshire Nursing Federation.	Taken over from Rural Midwives Association and paid for by County Council and Shropshire Nursing Federation.
1916	9	2
1917	12	4
1918	6	3
1919	7	2

FOOD AND DRUGS.

Return of the number of samples taken by Members of the Shropshire Constabulary for analysis under the Food and Drugs Act during 1919.

Nature of Sample.	No. taken.	Result.		Remarks.
		Genuine.	Adulterated.	
Milk	83	71	12	1 Dismissed. 2 Cautioned. 2 Fined £10 0s. 0d. 1 Fined £12 12s. 0d. 3 Fined £5 5s. 0d. 1 Fined £2 0s. 0d. 1 Fined £1 0s. 0d. 1 Fined £0 14s. 6d.
Butter	20	20	..	..
Margarine	20	20	..	..
Lard	7	7	..	..
Jam	5	5	..	..
Oatmeal	1	1	..	..
Marmalade	1	1	..	..
Whiskey	1	..	1	Fined £1 0s. 0d.
	138	125	13	

Of the 81 samples of milk analysed,

22	contained fat above		4 per cent.
28	,,	,, between	3.5 per cent. and 4 per cent.
26	,,	,, ,,	3 per cent. and 3.5 per cent.
4	,,	,, ,,	2.5 per cent. and 3 per cent.
1	,,	,, below	2.5 per cent.

Of the 81 samples 13 contained non-fatty solids above 9 per cent.
52 ,, ,, ,, between 8.5 per cent. and 9 per cent.
16 ,, ,, ,, below 8.5 per cent.

Report of Administration in connection with the Public Health (Milk and Cream) Regulations, 1912, in the County of Salop, for the year ended December 31st, 1919:—

1.—Milk and cream not sold as Preserved Cream—

Number of samples examined for the presence of a preservative.		Number in which a preservative was reported to be present.
Milk	31	*Nil.*
Cream	*Nil.*	

2.—Cream sold as preserved cream.
No samples taken.