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# REPORT

OF THE  
MEDICAL OFFICER OF HEALTH  
FOR THE YEAR  
**1932.**

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**WILLIAM G. SAVAGE,**

B.Sc., M.D. (Lond.), D.P.H.,

County Medical Officer of Health.








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**To the Chairman and Members of the Public Health and Housing Committee,  
Somerset County Council.**

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GENTLEMEN,

I beg to submit my twenty-fourth Annual Report upon the Health and Sanitary Administration of the County. The Ministry of Health has arranged to supply the mortality statistics to each Medical Officer to save separate compilation, and these figures have been adopted in the Tables.

The vital statistics for the year are satisfactory, but not the lowest recorded.

Progress with the Isolation Hospital Scheme has been made, but only slowly, and it has not been possible to put into operation those parts dealing with transfer of patients and utilisation of the nursing staff in different Hospitals.

The Report has been kept down to as small dimensions as possible and repetition avoided.

A large part of my Report is now taken up with details of the Health work undertaken by the County Health Department, but a brief survey is also given of the general sanitary conditions in the County.

Your obedient servant,

Weston-super-Mare,  
*July, 1933.*

W. G. SAVAGE.



## STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

Area (in acres) :—1,031,666.

Population (1932) :—408,100.

Births :—Total 5,565 ; Legitimate, 5,343 ; Illegitimate, 222. Stillbirths, 263.

Deaths :—Total, 5,127 ; Urban, 2,239 ; Rural, 2,888.

Deaths of children under 1 year of age :—274.

Rateable Value :—£2,237,905 (1932).

Sum represented by a penny rate :—£8,648 11s. 5d. (1931-32) ; £8,759 4s. 11d. (1932-33) ;  
£8,703 8s. 3d. (1933-34).

Birth rate :—13.64.

Death rate :—12.56.

Rate of infantile mortality :—49.24.

Percentage of births which were illegitimate :—3.99.

The birth rate is again very low and steadily declining.

The death returns are corrected as regards the distribution of deaths to the districts to which they properly belong. To correct for differences of age and sex distribution a standardizing factor has to be used. Factors have been obtained, based upon the last available census figures. So corrected the following figures are obtained :—

	<i>Net Death-rate.</i>	<i>Standardizing Factor.</i>	<i>Standardized Death-rate.</i>
Rural Districts ... * ...	12.48	0.772	9.63
Urban Districts ... ..	12.68	0.827	10.49
Administrative County ... ..	12.56	0.795	9.99
England and Wales ... ..	12.0	—	12.0

Somerset now contains a high proportion of old people and this is reflected in the difference between the net and standardized death rates. Compared with a population of standard age and sex distribution, which is what the standardized rate permits, it shows a rate of 9.99 which is very low but somewhat above the lowest on record for the County, *i.e.* 9.21.

The causes of death are set out in Tables A. and B. at the end of the Report. Table A. shows that heart diseases are responsible for the largest number of deaths from one single group of causes (1079 deaths), cancer and other forms of malignant disease the next largest (700 deaths), bronchitis and pneumonia caused 416 deaths, while tuberculosis caused 273 deaths.

As pointed out in previous years, we cannot hope to lower the death rate further to any great extent but must aim at a postponement of the period of death. Table I shows that this is taking place.

TABLE I.

**Proportion of the deaths in each year divided amongst the different age groups.**

	Under 1 year.	1—45.	45—65.	65 and over.
1911	12.9	21.0	20.8	45.3
1912	10.6	21.0	23.0	45.4
1913	10.8	23.3	21.0	44.9
1914	9.2	22.0	22.3	46.5
1920	9.7	19.1	22.3	48.9
1921	9.3	18.0	23.1	49.6
1922	6.6	17.3	22.2	53.9
1923	7.0	18.7	23.1	51.2
1924	7.1	17.5	21.8	53.6
1925	6.5	17.0	22.2	54.3
1926	6.9	16.0	22.3	54.8
1927	5.3	15.3	23.5	55.9
1928	5.6	16.6	23.2	54.6
1929	5.2	14.8	22.3	57.7
1930	5.6	15.5	23.4	55.5
1931	5.6	15.1	22.7	56.6
1932	5.3	14.1	23.2	57.4



The 1931 Census figures in detail are now available and the following are points of interest.

### POPULATION CHANGES.

Area.	1911	1921	1931	Increase or Decrease. 1921-1931.		
				Amount	Percentage	
URBAN.						
Bridgwater .. ..	17,228	16,327	17,139	812	5.0	
Burnham-on-Sea .. ..	4,356	5,571	5,120	- 451	- 8.1	
Chard .. ..	4,568	4,320	4,054	- 266	- 6.2	
Clevedon .. ..	6,111	6,724	7,029	305	4.5	
Crewkerne .. ..	3,939	3,703	3,509	- 194	- 5.2	
Frome .. ..	10,901	10,504	10,739	235	2.2	
Glastonbury .. ..	4,250	4,325	4,514	189	4.4	
Highbridge .. ..	2,343	2,479	2,585	106	4.3	
Ilminster .. ..	2,467	2,367	2,232	- 135	- 5.7	
Midsomer Norton .. ..	7,299	7,780	7,490	- 290	- 3.7	
Minehead .. ..	4,353	6,013	6,315	302	5.0	
Portishead .. ..	3,329	3,801	3,909	108	2.8	
Radstock .. ..	3,690	3,661	3,622	- 39	- 1.1	
Shepton Mallet .. ..	5,011	4,295	4,108	- 187	- 4.4	
Street .. ..	4,235	4,368	4,453	85	1.9	
Taunton .. ..	23,334	24,195	25,178	983	4.1	
Watchet .. ..	1,846	1,883	1,936	53	2.8	
Wellington .. ..	7,633	7,212	7,132	- 80	- 1.1	
Wells .. ..	4,655	4,369	4,831	462	10.6	
Weston-super-Mare .. ..	23,235	31,643	28,554	- 3,089	- 9.8	
Wiveliscombe .. ..	1,316	1,255	1,262	7	0.6	
Yeovil .. ..	14,487	16,097	19,077	2,980	18.5	
All Urban Areas .. ..	160,586	172,892	174,788	1,896	1.1	
RURAL.						
Axbridge .. ..	22,655	23,293	25,090	1,797	7.7	
Bath .. ..	14,794	14,571	14,035	- 536	- 3.7	
Bridgwater .. ..	17,776	17,092	17,160	68	0.4	
Chard .. ..	13,389	12,615	12,005	- 610	- 4.8	
Clutton .. ..	16,074	15,794	15,541	- 253	- 1.6	
Dulverton .. ..	4,837	4,515	4,872	357	7.9	
Frome .. ..	11,171	10,854	10,499	- 355	- 3.3	
Keynsham .. ..	10,128	10,570	12,426	1,856	17.6	
Langport .. ..	13,347	12,533	12,527	- 6	- 0.0	
Long Ashton .. ..	16,181	17,611	20,367	2,756	15.6	
Shepton Mallet .. ..	10,183	9,655	9,252	- 403	- 4.2	
Taunton .. ..	17,061	16,082	17,101	1,019	6.3	
Wellington .. ..	6,074	5,810	5,764	- 46	- 0.8	
Wells .. ..	10,633	10,182	10,017	- 165	- 1.6	
Williton .. ..	11,766	11,947	12,469	522	4.4	
Wincanton .. ..	16,439	15,528	15,965	437	2.8	
Yeovil .. ..	15,729	15,478	16,449	971	6.3	
All Rural Areas .. ..	228,237	224,130	231,539	7,409	3.3	
County .. ..	388,823	397,022	406,327	9,305	2.3	

No adjustment has been made for altered boundaries.

The recorded decrease in population for Weston-super-Mare is due to the fact that the 1921 Census return was taken in June with many visitors and therefore the 1921 figures did not give the true resident population.

The decreasing birth-rate and the postponement of death is altering the age distribution of the population in the county. This is shewn in the following table.

SOMERSET ADMINISTRATIVE COUNTY.

Age Distribution	Persons		Percentage Distribution	
	1921	1931	1921	1931
All ages	397,041	406,327	—	—
0—4	30,716	27,965	7.74	6.88
5—9	34,094	31,946	8.59	7.86
10—14	37,298	30,437	9.39	7.50
15—19	34,750	32,197	8.75	7.92
20—24	30,140	31,837	7.59	7.84
25—29	29,142	31,251	7.34	7.69
30—34	27,970	29,508	7.04	7.26
35—39	27,734	28,092	6.99	6.91
40—44	26,502	27,363	6.67	6.73
45—49	25,301	26,544	6.37	6.53
50—54	22,582	25,064	5.69	6.17
55—59	19,443	22,786	4.90	5.61
60—64	16,520	19,568	4.16	4.82
65—69	13,650	16,335	3.44	4.02
70—74	9,936	12,068	2.50	2.97
75—79	6,534	7,663	1.65	1.89
80—84	3,182	3,804	0.80	0.94
85—89	1,201	1,508	0.30	0.37
90—94	281	328	0.07	0.09
95 and over	65	63	0.02	0.02



TABLE II.  
Rural Districts.

YEAR.	Population estimated to middle of each Year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.	
		Number.	Rate.	Number.	Rate per 1,000 Births registered.	Number	Rate.
1922	225,651	4,198	18.60	197	46.93	3,008	13.33
1923	227,600	4,170	18.32	195	46.76	2,602	11.43
1924	231,200	3,907	16.89	201	51.45	2,820	12.20
1925	231,100	3,735	16.16	183	49.0	2,802	12.12
1926	231,700	3,654	15.77	180	49.26	2,728	11.77
1927	233,000	3,507	15.05	165	47.04	2,891	12.41
1928	235,440	3,615	15.35	155	42.88	2,754	11.70
1929	235,500	3,459	14.69	166	47.99	3,012	12.37
1930	232,040	3,465	14.93	162	46.76	2,747	11.84
1931	230,100	3,442	14.96	181	52.59	3,076	13.37
Averages for years 1922—1931	231,333	3,715	16.1	179	48.0	2,844	12.3
1932	231,400	3,315	14.32	160	48.27	2,888	12.48

Urban Districts.

1922	163,495	2,740	16.76	137	50.00	2,078	12.71
1923	164,700	2,651	16.10	118	44.51	1,852	11.24
1924	167,100	2,597	15.54	149	57.37	2,066	12.32
1925	166,900	2,436	14.60	133	54.60	2,045	12.25
1926	167,800	2,423	14.44	137	56.54	1,902	11.33
1927	168,500	2,262	13.42	100	44.21	2,110	12.52
1928	169,810	2,336	13.76	114	48.80	2,058	12.12
1929	171,060	2,233	13.05	108	48.37	2,240	13.11
1930	172,830	2,340	13.54	104	44.44	1,986	11.50
1931	173,750	2,260	13.01	114	50.44	2,193	12.64
Averages for years 1922—1931	168,595	2,428	14.4	121	50.0	2,053	12.8
1932	176,700	2,250	12.74	114	50.67	2,239	12.68



## GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

This was set out in detail in my Annual Report for 1931 and remains practically unaltered.

### PREVALENCE AND CONTROL OVER INFECTIOUS AND OTHER DISEASES.

#### Acute Infectious Diseases.

As set out in my Report for last year, nine hospital areas are included in the scheme made under Sec. 63 of the Local Government Act 1929. During the year considerable progress was made in bringing the scheme into operation.

The notifications are shown in Table III. As County Medical Officer, I know very little about their incidence. The notifications are made to the District Medical Officers of Health who are responsible for all steps to prevent their spread. All the County M.O.H. knows is the number of notifications each week—not even the names or addresses. I have never regarded existing arrangements as the best possible. Infectious diseases are best controlled over a wide area and it would be much more satisfactory if this was a function of the County Council in all the rural and quite small urban areas. The County Council is now a partner to a considerable extent in isolation hospital provision and provides laboratory facilities for diagnosis. As the Maternity and Child Welfare authority over most of the County it is concerned with the prevention and reduction of deaths and damage to health from measles and whooping cough and its Health Visitors spend much time on this work. Especially as Education Authority is the County Council concerned with infectious disease amongst school children. This dual control is unsatisfactory in actual working, and, in my opinion, it would have been more economical and satisfactory if the control over infectious disease had been transferred to the County Council. I pointed this out last year, but it is worth while to mention it again.

**Small Pox.** I am glad to be able to report that there were no cases of small-pox during the year in the County.

The 1932 vaccination figures are not yet available, but early in 1933 those for 1931 were reported. Of 5,570 births only 1,554 were returned as successfully vaccinated. This gives only 28 per cent. vaccinated, the percentage varying from five in High Littleton and Chew Magna to seventy-two in the Dulverton registration sub-district.

**Diphtheria.** 260 cases were notified with 17 deaths, a case mortality of 6.5 per cent. The distribution of the cases is shown in Table III. The number of cases was exceptionally low.

**Scarlet Fever.** The prevalence of this disease was also low, only 329 cases were notified. There was only 1 death, giving a case mortality of 0.3 per cent.

**Enteric and Paratyphoid Fevers.** Only 22 cases were notified, with 4 deaths.

**Encephalitis Lethargica.** Table III. shows that 11 cases were notified, and that these were distributed through the County and with no epidemic. There were, however, 8 deaths, a case mortality of 72.7 per cent.

Only 3 cases of Cerebro-spinal Meningitis and 10 cases of acute Poliomyelitis were notified.

**Measles and Whooping Cough.** Neither disease is notifiable so the number of cases is not known. During the year there were 6 deaths from measles and 9 deaths from whooping cough, both very low figures.

Table III shows that the incidence of notifiable infectious diseases in Somerset during 1932 was very low.



## INFECTIOUS DISEASES.

TABLE III.

	Small Pox.	Scarlet Fever.	Diphtheria.	Enteric and Paratyphoid Fevers.	Puerperal Fever.	Ophthalmia Neonatorum.	Cerebro-spinal Meningitis.	Dysentery.	Malaria.	Pneumonia.	Acute Poliomyelitis.	Encephalitis Lethargica.
<b>URBAN</b>												
Bridgwater*	0	6	3	0	1	2	0	0	0	32	0	0
Burnham	0	3	11	0	0	1	0	0	0	8	0	0
Chard	0	1	0	0	0	1	0	0	0	4	0	0
Clevedon	0	0	1	0	0	0	0	0	0	7	0	0
Crewkerne	0	2	2	0	1	0	0	0	0	5	0	0
Frome	0	6	5	1	0	3	0	0	0	1	0	1
Glastonbury	0	0	4	0	0	0	0	0	0	6	0	1
Highbridge	0	0	3	0	0	0	0	0	0	1	0	0
Ilminster	0	2	0	0	0	0	0	0	0	4	0	0
Midsomer Norton	0	1	9	0	0	1	1	0	0	11	0	0
Minehead	0	4	1	1	0	0	0	0	0	0	0	0
Portishead	0	5	0	0	1	0	0	0	0	1	0	0
Radstock	0	2	8	0	0	1	0	0	0	4	0	0
Shepton Mallet	0	2	2	2	0	0	0	0	0	16	0	1
Street	0	0	4	0	0	0	0	0	0	10	0	0
Taunton	0	26	71	1	0	5	1	0	0	19	1	0
Watchet	0	0	0	0	0	0	0	0	0	0	0	0
Wellington	0	8	4	1	2	0	0	0	0	10	0	0
Wells	0	0	0	0	0	0	0	0	0	4	0	0
Weston-super-Mare	0	56	10	0	0	5	0	0	0	27	1	0
Wiveliscombe	0	1	14	0	0	0	0	0	0	2	0	0
Yeovil	0	1	9	0	1	3	0	0	0	14	0	2
<b>RURAL</b>												
Axbridge	0	49	20	2	2	1	1	0	0	46	2	2
Bath	0	10	4	1	1	2	0	0	0	3	0	0
Bridgwater	0	7	1	0	0	0	0	0	0	10	1	1
Chard	0	2	2	0	0	0	0	0	0	11	1	0
Clutton	0	5	6	0	1	1	0	0	0	19	2	0
Dulverton	0	7	1	0	0	0	0	0	0	8	0	0
Frome	0	19	10	1	1	1	0	0	0	10	0	0
Keynsham*	0	16	8	5	0	0	0	0	0	22	0	0
Langport	0	4	1	1	0	0	0	0	0	8	1	0
Long Ashton	0	25	6	0	0	0	0	0	0	15	0	0
Shepton Mallet	0	11	3	0	2	0	0	0	0	18	1	1
Taunton	0	17	19	1	1	1	0	0	0	15	0	0
Wellington	0	6	0	0	0	0	0	0	0	3	0	0
Wells	0	9	2	5	1	0	0	0	0	17	0	1
Williton	0	1	0	0	0	1	0	0	0	5	0	1
Wincanton	0	8	11	0	0	1	0	0	0	21	0	0
Yeovil	0	7	5	0	2	0	0	0	0	16	0	0
Urban Districts	0	126	161	6	6	22	2	0	0	186	2	5
Rural Districts	0	203	99	16	11	8	1	0	0	247	8	6
Administrative County	0	329	260	22	17	30	3	0	0	433	10	11

\* One case of Polio-Encephalitis in each area.



### VENEREAL DISEASES.

The attendances of Somerset cases at the different clinics for the year 1932 were as follows :—

Clinic.	New cases 1932	Attend- ances 1932	NEW CASES.				ATTENDANCES.		
			1929.	1930.	1931.	Increase or decrease during 1932.	1930.	1931.	Increase or decrease during 1932.
Bath .....	16	522	14	19	15	+ 1	495	467	+ 55
Bristol .....	54	853	71	59	62	- 8	520	820	+ 33
Taunton .....	74	1,043	77	86	58	+16	1,476	1,015	+ 28
Yeovil .....	64	1,031	77	52	59	+ 5	1,028	1,022	+ 9
Bridgwater .....	33	394	34	25	15	+18	328	231	+163
Frome .....	4	172	8	31	6	- 2	341	179	- 7
Glastonbury .....	5	46	18	3	5	0	138	56	- 10
Minehead .....	23	132	22	14	8	+15	234	76	+ 56
Radstock* .....	—	—	3	7	—	—	10	—	—
Weston-super-Mare .....	41	1,078	65	52	43	- 2	623	980	+ 98
All Clinics	314	5,271	389	338	271	+ 43	5,193	4,846	+425

\*Closed from April, 1931.

The figures show an increase both in new cases and in attendances over the previous year. 78 per cent. of the new cases and 74 per cent. of the total attendances were at County Council clinics.

Medical Practitioners in the County qualified to receive supplies of arsenobenzol compounds can obtain them free of charge on request to the County Medical Officer. Only 22 Medical Practitioners are on this free list.

Bacteriological work in connection with venereal diseases is arranged for either in connection with Bristol University Laboratory or at the County Health Laboratory.

During the year the following samples were examined :—

Samples.	For Medical Officers of Clinics	For Medical Practitioners.	Total.
Wasserman <sup>n</sup>	252	251	503
Gonococcus	454	81	535
Spirochetes	1	0	1
Fixation tests	12	0	12
	719	332	1,051



### TUBERCULOSIS.

No developments of any importance took place during the year, but the question of the provision of additional accommodation for non-pulmonary and advanced pulmonary tuberculosis cases was again discussed and fresh proposals are under consideration.

#### TABLE IV.

Year.	Phthisis Death rates.			Other Tuberculous Diseases			Tuberculosis Death-rate.	Deaths in a population of 406,000.	
	Rural.	Urban.	County.	Rural.	Urban.	County.	County.	Phthisis.	All Tuberculosis
1901	0.88	0.84	0.871	0.18	0.23	0.202	1.073	354	435
1902	0.86	0.89	0.877	0.20	0.19	0.201	1.078	356	437
1903	0.94	0.76	0.879	0.19	0.34	0.251	1.130	357	459
1904	0.99	0.97	0.989	0.20	0.34	0.255	1.244	402	505
1905	0.90	0.91	0.905	0.14	0.18	0.162	1.067	367	433
1906	0.90	0.86	0.890	0.13	0.37	0.221	1.111	361	451
1907	0.83	0.85	0.842	0.24	0.26	0.253	1.095	341	445
1908	0.91	0.93	0.922	0.24	0.31	0.274	1.196	375	485
1909	0.82	0.85	0.833	0.24	0.27	0.255	1.088	338	441
1910	0.98	0.78	0.912	0.16	0.24	0.197	1.109	371	451
1911	0.83	0.76	0.804	0.15	0.39	0.240	1.044	327	424
1912	0.69	0.90	0.778	0.17	0.20	0.191	0.970	315	394
1913	0.74	0.67	0.721	0.15	0.30	0.239	0.960	293	389
1914	0.86	0.79	0.833	0.21	0.26	0.232	1.065	338	432
1915	0.84	1.13	0.960	0.18	0.23	0.201	1.160	389	471
1916	0.75	0.97	0.838	0.16	0.25	0.194	1.032	340	418
1917	0.90	1.05	0.962	0.18	0.21	0.191	1.153	390	468
1918	1.09	1.30	1.180	0.21	0.24	0.225	1.403	479	569
1919	0.85	0.90	0.871	0.21	0.22	0.212	1.083	355	439
1920	0.65	0.93	0.765	0.14	0.27	0.196	0.961	310	390
1921	0.63	0.76	0.685	0.16	0.30	0.220	0.904	278	367
1922	0.75	0.78	0.761	0.18	0.18	0.180	0.941	309	382
1923	0.65	0.76	0.696	0.19	0.22	0.206	0.902	282	366
1924	0.60	0.74	0.656	0.15	0.13	0.140	0.797	267	324
1925	0.61	0.73	0.659	0.12	0.14	0.126	0.784	268	319
1926	0.53	0.54	0.533	0.13	0.14	0.138	0.671	217	273
1927	0.55	0.64	0.586	0.13	0.13	0.130	0.716	237	290
1928	0.59	0.71	0.639	0.08	0.16	0.113	0.753	259	306
1929	0.55	0.65	0.593	0.11	0.14	0.121	0.714	240	289
1930	0.54	0.52	0.532	0.09	0.09	0.091	0.623	216	253
1931	0.45	0.65	0.533	0.14	0.12	0.131	0.664	216	270
1932	0.50	0.62	0.554	0.12	0.10	0.115	0.671	225	272

The pulmonary tuberculosis death rate shows a slight increase over the last two years. Compared with twenty-five years ago, the decline has been 39 per cent. for all tuberculosis. In view of the close relationship between tuberculosis and economic conditions some rise at the present time is to be anticipated.

The following figures show the deaths and notifications since 1914 :—

TABLE V.

Year.	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Deaths.	422	428	467	393	480	388	358	350	366	354	317	312	268	287	305	290	253	268	273
*Notifi- cations.	984	933	872	1036	949	922	860	882	732	707	701	769	729	703	713	605	640	585	565

\*These are primary cases only and do not include institutional cases.  
Of the 273 deaths from tuberculosis, 38 were not notified.

TABLE VI.

**New cases of tuberculosis and deaths from the disease in the County during 1932.**

Age Periods.	New cases.				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M	F.	M.	F.	M.	F.	M.	F.
0—1	1	0	1	1	0	0	1	2
1—5	1	0	14	5	1	0	6	7
5—10	12	16	20	21	1	3	4	1
10—15	11	9	8	7				
15—20	22	28	11	6	16	24	3	3
20—25	22	30	8	9				
25—35	48	75	10	5	67	45	5	2
35—45	40	34	1	9				
45—55	21	15	3	1	39	17	5	3
55—65	13	10	2	2				
65 and upwards	3	7	1	2	4	9	2	3
Totals	194	224	79	68	128	98	26	21



**TABLE VII.**  
**Tuberculosis Notifications and Deaths.**

URBAN DISTRICTS.	Number of primary cases notified.		Number of Deaths during the year from Pulmonary Tuberculosis.	Number of Deaths during the year from other varieties of Tuberculosis.	RURAL DISTRICTS.	Number of primary cases notified.		Number of Deaths during the year from Pulmonary Tuberculosis.	Number of Deaths during the year from other varieties of Tuberculosis.
	Pulm.	Non-Pulm.				ulm.	Non-Pulm.		
Bridgwater .....	26	6	12	2	Axbridge .....	20	12	9	8
Burnham .....	7	1	3	1	Bath .....	16	5	12	2
Chard .....	4	3	2	0	Bridgwater .....	12	3	13	3
Clevedon .....	3	—	5	1	Chard .....	14	5	4	0
Crewkerne .....	6	—	3	0	Clutton .....	7	7	5	1
Frome .....	11	4	5	1	Dulverton .....	7	1	1	0
Glastonbury .....	4	2	5	0	Frome .....	11	6	5	1
Highbridge .....	2	1	2	1	Keynsham .....	12	3	10	1
Ilminster .....	2	1	3	0	Langport .....	8	5	6	3
Midsomer Norton .....	9	3	4	0	Long Ashton .....	25	9	9	1
Minehead .....	11	1	4	0	Shepton Mallet .....	5	3	0	4
Portishead .....	2	1	2	0	Taunton .....	5	12	8	0
Radstock .....	—	3	0	0	Wellington .....	2	1	2	2
Shepton Mallet .....	5	4	2	0	Wells .....	7	5	7	1
Street .....	6	3	3	0	Williton .....	20	—	7	0
Taunton .....	27	10	17	2	Wincanton .....	15	3	9	2
Watchet .....	5	—	1	0	Yeovil .....	19	9	9	0
Wellington .....	16	—	7	0					
Wells .....	4	3	1	1					
Weston-s-Mare .....	31	6	14	6					
Wiveliscombe .....	3	—	0	0					
Yeovil .....	19	6	15	3					
<b>Totals</b>	<b>203</b>	<b>58</b>	<b>110</b>	<b>18</b>	<b>Totals</b>	<b>215</b>	<b>89</b>	<b>116</b>	<b>29</b>

**Summary of Treatment given during 1932.**

Sanatorium	...	...	...	...	190
Sanatorium with Dispensary (1 with shelter)	...	...	...	...	55
„ Domiciliary (without shelter)	...	...	...	...	16
„ „ (with shelter)	...	...	...	...	3
Dispensary and Domiciliary	...	...	...	...	1
Dispensary (5 with shelter)	...	...	...	...	70
Shelter provided at home	...	...	...	...	12

In addition, milk, for a period of six or eight weeks, was provided for 70 cases ; Dental treatment for 3 cases ; X-ray examinations for 69.

Treatment by the use of artificial pneumothorax has been extended and the cases dealt with are shewn in the following table :—

	At Dispensary or home of patient.	At Quantock Sanatorium.	Total.
Primary inductions	3	11	14
Refills .. ..	161	229	390

The X-ray work at Quantock Sanatorium consisted of 14 films taken and 295 screening of cases.

Unused buildings at Quantock Sanatorium were again utilized during 1932 as a Summer Camp. Children were selected who were predisposed to tuberculosis on account of general debility or undernourishment, with special attention to those from homes in which there was an active case of tuberculosis. Of such children, 40 girls and 40 boys each for four weeks, were given treatment under open-air conditions and on the lines of a holiday camp. The increase in weight and marked improvement in general health which resulted was again satisfactory. This work must be regarded as an important piece of tuberculosis preventive work. The Staff utilised was almost entirely voluntary.

Dr. Short, County Tuberculosis Officer, has drawn up the following remarks dealing with the treatment given under the County Council scheme and the results obtained.



### Tuberculosis Officer's Clinical Report for 1932.

The year 1932 marked a further advance in the attack upon tuberculosis, particularly because of the extended use of Artificial-Pneumothorax, or collapse therapy, in cases of severe but localised disease.

It was usually found possible to send these cases to Quantock Sanatorium for the primary induction and then to continue the necessary refills at the Dispensary, but in some cases of sudden haemorrhage the patient could not be moved and was in grave danger unless something was done at once. An illustrative case may be quoted. An ex-soldier who had been invalided out for tuberculosis, but had improved in health, was working as a farm labourer and living in a small and isolated cottage. He suddenly had a sharp haemoptysis and could not be moved from his bed. We waited in the hope of some improvement, but a second and more severe haemorrhage occurred which threatened to prove fatal. The Dispensary apparatus was taken to his cottage and the bleeding lung was successfully collapsed. The bleeding immediately ceased and the patient was able to be carried downstairs and over a field to the ambulance and to undertake a 40 mile journey to the Sanatorium without risk of further (and perhaps fatal) haemorrhage. He is now up and about and anxious to return to work as the necessary refill treatment can be continued at the Dispensary.

The number of cases diagnosed as definite tuberculosis was about the same as the previous two years, but there was a slight fall in the number classified as "Stage 3," which is gratifying.

Again it has been possible to write off a large number of cases as "cured," after more than 5 years careful observation, while a considerable proportion of those not yet cured have been enabled to remain in more or less full work during the year.

The Care Committees have again been most generous and helpful and the staff have worked loyally and with their usual keenness to lower the tuberculosis rates still further.

The new cases seen numbered 1,414 and were classified as follows:—

PULMONARY TUBERCULOSIS.	T.B. Negative	...	...	209	
	T.B. Positive Stage 1	...	...	7	
	T.B. Positive Stage 2	...	...	121	
	T.B. Positive Stage 3	...	...	32	
					369
NON-PULMONARY TUBERCULOSIS.	Bones and Joints	...	...	28	
	Abdominal	...	...	14	
	Other Organs	...	...	3	
	Peripheral Glands	...	...	38	
					83
Not Tuberculous	...	...	...	...	954
Diagnosis not completed on 31st December, 1932	...	...	...	...	8
					<hr/> 1,414 <hr/>

L. J. SHORT.



TABLE VIII.

Condition of all cases discharged from Quantock Sanatorium, from the opening until 31st December, 1932.

	<i>Cases.</i>	<i>Percentage.</i>
Cured .....	74	7.8
Arrested and Working .....	261	27.6
Arrested but <i>not</i> Working .....	14	1.5
Not Arrested but Working .....	178	18.8
Not Arrested and <i>not</i> Working .....	114	12.0
Lost sight of and left County .....	129	13.6
Dead .....	177	18.7
	<hr/> 947 <hr/>	

*Note.* Some of the cases are not admitted as curative cases but as advanced cases sent in to prevent home infection. This accounts for almost all the "dead" group.

The expression "arrested" has a technical meaning, and is only applied to cases free from any symptoms for at least two years. Many in the "non-arrested" group are apparently quite well, but the two years' period has not elapsed.

TABLE IX.

**All cases under treatment. Complete results as regards working capacity.**

All years, (1912-1932).		Cured.	Working.	Not Working.	Dead.	Lost sight of or Removed.	Total cases.
Men	Cases	911	431	271	1,338	552	3,503
	Percentage	26	12	8	38	16	
Women	Cases	918	623	293	1,176	599	3,609
	Percentage	25	17	8	33	17	
Children	Cases	1,568	532	142	174	404	2,820
	Percentage	56	19	5	6	14	
Un- Classified	Cases	0	0	0	124	229	353
	Percentage	0	0	0	35	65	
Total	Cases	3,397	1,586	706	2,812	1,784	10,285
	Percentage	33	15	7	27	18	

TABLE X.

## Admissions to Sanatorium during 1932

Sanatorium.	Men.	Women.	Children.	Total.
Quantock	59	62	—	121
Taunton	18	18	1	37
Wincanton	20	20	1	41
Compton Bishop	—	—	41	41
Alton Hospital	—	—	7	7
Bath Ortho. Hospital	—	—	4	4
Heatherwood Hospital	—	—	1	1
Bridgwater Hospital	2	—	—	2
	99	100	55	254

TABLE XI.

## Cases treated through the County Dispensaries.

Dispensary.	Persons treated at Dispensaries during 1932.		Under treatment at Dispensaries Dec. 31st, 1932.		Total Dispensary Attendances 1932.	Total Persons examined 1932.
	Insured.	Uninsured.	Insured.	Uninsured.		
Bath (City)	—	157	—	22	1536	564
Bath (County)	—	36	—	6	246	98
Bridgwater	41	178	9	70	1038	433
Bristol	—	67	—	34	367	116
Chard	19	10	10	9	224	101
Clevedon	8	34	7	20	229	101
Frome	9	30	3	18	269	97
Glastonbury	10	29	3	9	314	129
Langport	17	26	5	11	233	85
Minehead	12	125	10	120	691	301
Radstock	2	37	—	26	225	75
Shepton Mallet	1	16	—	9	184	75
Taunton	5	192	1	110	933	405
Wellington	7	38	4	22	333	96
Weston-super-Mare	15	68	15	51	659	316
Wincanton	4	14	1	6	184	90
Yeovil	28	56	12	19	645	270
	178	1,113	80	562	8,310	3,352
	1,291		642			



DIAGNOSIS.	PULMONARY.		NON-PULMONARY		TOTAL.		GRAND TOTAL.						
	Adults.		Children.		Adults.								
	M.	F.	M.	F.	M.	F.							
A.—NEW CASES examined during the year (excluding contacts)—													
(a) Definitely tuberculous .. .. .	131	159	14	15	12	14	22	22	143	173	36	37	389
(b) Diagnosis not completed .. .. .	—	—	—	—	—	—	—	—	1	1	3	1	6
(c) Non-tuberculous .. .. .	—	—	—	—	—	—	—	—	152	148	126	127	553
B.—CONTACTS examined during the year—													
(a) Definitely tuberculous .. .. .	3	4	2	3	—	1	6	2	3	5	8	5	21
(b) Diagnosis not completed .. .. .	—	—	—	—	—	—	—	—	—	—	—	2	2
(c) Non-tuberculous .. .. .	—	—	—	—	—	—	—	—	34	81	129	153	397
C.—CASES written off the Dispensary Register as—													
(a) Recovered .. .. .	57	89	53	45	8	5	20	21	65	94	73	66	298
(b) Non-tuberculous (including any such cases previously diagnosed and entered on the Dispensary Register as tuberculous) .. .. .	—	—	—	—	—	—	—	—	192	233	258	286	969
D.—NUMBER OF CASES on Dispensary Register on December 31st—													
(a) Definitely tuberculous .. .. .	649	829	196	189	52	87	152	127	701	916	348	316	2,281
(b) Diagnosis not completed .. .. .	—	—	—	—	—	—	—	—	1	1	3	3	8
1. Number of cases on Dispensary Register on January 1st .. .. .	2,411		2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years .. .. .		46								
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of"	83		4. Cases written off during the year as Dead (all causes) .. .. .		186								
5. Number of attendances at the Dispensary (including Contacts)	6,774		6. Number of Insured Persons under Domiciliary Treatment on the 31st December .. .. .		107								
7. Number of consultations with medical practitioners— (a) Personal .. .. . (b) Other .. .. .	557 1,745		8. Number of visits by Tuberculosis Officers to homes (including personal consultations) .. .. .		666								
9. Number of visits by Nurses or Health Visitors to homes for Dispensary purposes .. .. .	15,206		10. Number of— (a) Specimens of sputum, etc., examined .. .. . (b) X-ray examinations made in connexion with Dispensary work .. .. .		578 69								
11. Number of "Recovered" cases restored to Dispensary Register, and included in A(a) and A(b) above .. .. .	3		12. Number of "T.B. plus" cases on Dispensary Register on December 31st .. .. .		479								



TABLE XIII.

Return showing the immediate results of treatment of definitely tuberculous patients discharged during the year 1932 from Institutions approved for the treatment of Tuberculosis.

[illegible]



**Compton Bishop Children's Home.** This very valuable institution was opened in October, 1917 for 19 beds and enlarged in 1919 for 29 beds and in 1928 to take 33 children. It has always been run very economically and the results of treatment have been most satisfactory. The average duration of stay is about 11 months.

Every case sent is a definitely notified case, except a few doubtful cases sent to be cleared up, so this prolonged stay is not excessive. The condition of all cases discharged up to the end of 1932, excluding 29 cases found non-tuberculous and 20 which stayed less than a month, is as follows :—

	No.	Percentage.
Cured .. .. .	239	52.3
Arrested (working or at school) .. .. .	121	26.5
Not Arrested—working .. .. .	37	8.1
Not Arrested—Not working .. .. .	19	4.2
Lost sight of .. .. .	23	5.0
Dead—of tuberculosis .. .. .	13	3.9
of other conditions .. .. .	2	
Not ascertained .. .. .	3	
	<hr/> 457 <hr/>	

Excluding the few lost sight of cases, 88 per cent. are perfectly well ; 4 per cent. are in the group "Not arrested," but many of these are well and will be cured ; only 4 per cent. subsequently died and of these tuberculosis only accounted for 2.8 per cent.

**Quantock Sanatorium.** The Medical Superintendent, Dr. V. C. Martyn, has furnished the following Report :—

The Sanatorium has been open for the reception of 68 cases (33 males and 35 females) throughout the year 1932.

During this time 121 cases have been admitted of whom 59 were males and 62 females. 114 patients were discharged, 54 males and 60 females. There were 3 deaths during the year.

The average stay for female patients was 214 days and for male patients 214 days. This is an average stay of about 31 weeks for each patient.

Treatment was carried out in the same way as in previous years, *i.e.*, by rest, graduated exercise and work with good plain food under open-air conditions.

Artificial Pneumothorax treatment has been undertaken for suitable cases, namely those who, in my opinion, have not improved or would not improve under ordinary medical treatment.

X-ray work which is so important in diagnosis and artificial pneumothorax treatment has been carried out as before.

Amusements both in and outdoors are provided for the patients. During the winter, Concerts, Whist Drives, Billiard Matches, etc., are much appreciated. The library is most important too and we are very grateful to the friends of the Sanatorium who provided fresh books last year.

I should like again to thank Dr. Mcreedy, the Matron and Nursing Staff, the Engineering Staff and Gardeners for their loyal co-operation and devoted work for the patients.

## RESULTS OF TREATMENT.

## WEIGHTS.

## Increase in weights in Kilos.

	1—6	6—12	12 and over.	Total.
Males ... ..	23	20	3	46
Females ... ..	23	26	5	54
The average gain in weight of all patients (111) weighed on discharge				= 5.78 kilos
"    "    of 51 male patients				= 5.47 "
"    "    of 60 female patients				= 6.05 "
The average loss in weight of 11 patients weighed on discharge				= 2.21 "

Four patients were not weighed on discharge, 1 being on absolute rest ; 3 patients died. The average gain in weight of 127 patients weighed on discharge during 1931 was 4.90 kilos. In 1932 the average gain in weight of 111 patients was 5.78 kilos, showing a increase of 0.88 kilos.

## Working capacity of patients on admission and discharge.

	<i>Full Working Capacity.</i>		<i>Fit for light work.</i>		<i>Unfit for work.</i>	
	Admission.	Discharge.	Admission.	Discharge.	Admission.	Discharge.
Males .....	0	32 = 62.8 %	1	11 = 21.5 %	50	8 = 15.7 %
Females .....	0	40 = 66.6 %	0	5 = 8.4 %	60	15 = 25.0 %

On admission 99.10 per cent. were unfit for any work. On discharge 64.9 per cent. of all patients were fit for full work ; 14.4 per cent. for light work ; and 20.7 per cent. were unfit for work.

*Classification on admission of patients discharged during 1932.*

## Tubercle Bacilli.

<i>Classification.</i>	M.	F.	Total	%	Positive.		Negative.	
					M.	F.	M.	F.
Early ... ..	0	4	4	3.6	0	0	0	4
Intermediate ... ..	50	54	104	93.7	31	20	19	34
Advanced ... ..	1	2	3	2.7	1	2	0	0

Tubercular complications presented by the patients were :—Bronchitis, Empyema, Glands, Laryngitis, Peritonitis, Pleurisy and Sacro-Iliac.



QUANTOCK SANATORIUM.

*Duration of Treatment and Condition on discharge.*

		Under 3 months.			3—6 months.			6—12 months.			More than 12 months.			Totals.		Grand Totals.
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	
Class TB Minus.	Quiescent	2	2	0	8	13	0	8	22	0	1	1	0	19	38	0
	Not quiescent	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
	Died in Institution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class TB + Group 1.	Quiescent	0	0	0	1	0	0	2	0	0	0	0	0	3	0	3
	Not quiescent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Died in Institution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class TB + Group 2.	Quiescent	0	0	0	4	1	0	15	6	0	0	0	0	19	7	26
	Not quiescent	1	1	0	2	2	0	5	4	0	0	1	0	8	8	16
	Died in Institution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class TB + Group 3.	Quiescent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Not quiescent	0	1	0	0	2	0	2	1	0	0	1	0	2	5	7
	Died in Institution	2	0	0	0	0	0	1	0	0	0	0	0	3	0	3

In 41 out of 54 men discharged the disease was quiescent = 75.93 per cent. In 45 out of 60 women discharged the disease was quiescent = 75.0 per cent. 5 cases were admitted for observation ; 4 were found to be tuberculous and are included in the above figures. The remaining case was discharged as non-tuberculous.



### TREATMENT WITH ARTIFICIAL LIGHT.

This work is being carried out under the Tuberculosis, Education and Maternity and Child Welfare Schemes. Four light treatment centres were in use during 1932 and 360 clinics were held. The new cases seen were 105, while the total attendances were 3,828. Of the cases, 52 were tuberculosis. The details are given in my Report for 1932 as School Medical Officer.

### MATERNITY AND INFANT WELFARE.

**Rate of Infantile Mortality.** This is the number of deaths under one year of age per 1,000 births. For 1932 it was 49.24. This is lower than the previous year, but above some of the very low figures which have been recorded. The rate for England and Wales was 65. The rate in the rural areas was 48.27 and in the urban areas 50.67.

The Urban and Rural Rates are shown in Table II and the causes of the 274 deaths in Table A (at end of the Report).

Table XIV shows the months of death. These figures do not always exactly correspond with those in Table A, as the latter is taken from the Registrar-General's figures, and this Table is from figures given by the District Medical Officers of Health, obtained from the local Registrars.

This Table shows that 164 of the 265 deaths under one year of age took place before the child was a month old. This is 62 per cent. and of these 72 per cent. took place before the infant was a week old. In other words, a large proportion of the deaths are pre-natal in origin and illustrates the importance of pre-natal work.

**The Midwifery Service.** The number of certified midwives who gave notice of their intention to practise during 1932 was 328, consisting of 325 trained and 3 "bona fide" midwives.

The percentage of 1932 births in the County attended by midwives as midwives was 61.3, the remaining 38.7 per cent. being, for the most part, attended by medical men, a small but uncertain proportion being attended by uncertified women.

During the year 1,039 visits of inspection were made to midwives, representing an average of 4 visits to each midwife.

#### *Summary for all Midwives during the year.*

	<i>Trained.</i>	<i>Bona fide.</i>	<i>Total.</i>
Cases attended as Midwife ...	3,404	4	3,408
Cases attended as Monthly Nurse ...	1,332	15	1,347
Doctor sent for for Mother ...	1,037	0	1,037
Doctor sent for for Child ...	179	0	179
Stillbirths ...	85	0	85
Death of Mother ...	9	0	9
Death of Child ...	29	0	29

A doctor was called in under Section 14 of the Midwives' Act in 35.7 per cent. of midwives' cases.

During the year 948 doctors' accounts were paid under the contributory scheme, at a cost of £1,377 : 12 : 6d., while the contributory fees were £713 : 15 : 0d., the deficit payable by the County Council being £663 : 17 : 6d. The average doctor's fee per case was £1 : 9 : 1d. Fees amounting to £106 : 12 : 6d. were paid in 86 cases not coming under the scheme, and of this £34 : 6 : 6d. was recovered. Apart from the Central Office Expenses, the cost of working this section of the Midwives' Act for 1932 was, therefore, £736 : 3 : 6d. This is £72 : 4 : 6d. more than last year.



**Maternal Mortality.** This is included in two groups in the Registrar-General's returns and is so included in Tables A. and B. The two groups are "Puerperal Sepsis" and "Other Accidents and Diseases of Pregnancy and Parturition."

The deaths from these causes for each of the last 20 years are shown in the following Table :—

	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Puerperal Sepsis .....	8	1	5	7	4	8	6	9	5	2	4	5	10	6	12	14	8	12	11	5
Other Accidents and Diseases of Pregnancy and Parturition.....	20	21	18	24	17	20	9	21	22	15	13	19	16	15	11	12	13	13	14	19
Total .....	28	22	23	31	21	28	15	30	27	17	17	24	26	21	23	26	21	25	25	24
Rate per 1,000 Births .....	3.72	3.13	3.41	4.65	3.90	5.14	2.64	3.63	3.60	2.45	2.49	3.69	4.21	3.46	3.83	4.36	3.69	4.31	4.84	4.31

During the year 17 cases of Puerperal Fever and 50 cases of Puerperal Pyrexia were notified. Arrangements have been made with different Hospitals to take in County cases and facilities are offered. During 1932 six cases were so admitted and in one case a special nurse was supplied. The Hospitals with which arrangements have been made are the following :—

Bath Royal United Hospital, Bridgwater Hospital, Bristol Royal Infirmary,  
Chard Hospital, Minehead Isolation Hospital, Yeovil Hospital.

**Ophthalmia Neonatorum.** During the year 30 cases were notified. The distribution of the cases is shown in Table III. Under the Public Health (Ophthalmia Neonatorum) Regulations, 1926, three cases were sent to Hospital under the County Council Scheme and in one case a special nurse was supplied. All the cases are followed up for long periods, to ascertain if there is any impairment of vision. All cleared up completely.

**Nursing and Maternity Homes.** At the end of the year the number of homes on the Register was 36. They are all visited from time to time by Dr. Halliday, Miss Stewart or myself to see that the premises are in order and the requirements of the County Council are complied with as regards management.

**Milk Grants.** Throughout the year milk was granted to necessitous cases under the Milk (Mothers and Children) Orders of the Ministry of Health. Grants were made to 2,088 cases, at an estimated cost of £654. Last year £410 was spent. The grants were carefully made and supervised, and given as allowances for specific public health purposes. Of the grants made, about 28 per cent. were to expectant mothers, 49 per cent. to nursing mothers, and 23 per cent. to children under five years of age. Great care is taken to prevent abuse and to see that the milk is taken only by the person for whom it is intended.



**Ante-Natal Work.** This important work is being steadily extended. One valuable development is by utilising every opportunity to improve the knowledge of the midwives. Amongst other methods, small courses of instruction have been given. It is difficult to get large numbers of nurse midwives together at one centre, and a series of local meetings at different centres in the County have been arranged. Each course usually consists of eight meetings, once each week. Three of the meetings are taken by Dr. Halliday, two by Miss Stewart, and three by Miss Lamb. During the year this course was held at two centres, Crewkerne and Langport. A study circle course was also held at Bath.

Arrangements have been made with six maternity homes in the county to take in cases at the cost of the County Council, when sent for certain special conditions such as abnormality of the mother or suspected difficult confinement or unsuitable or very inaccessible home. During the year twenty-one cases were admitted under this scheme. All the mothers did well with satisfactory results except that one baby died and one was still-born. The maternity homes at which arrangements have been made for County Council cases are the following:—Bridgwater, Taunton, Minehead, Wellington, Bath and Yeovil, while cases were sent to Bristol General Hospital and several voluntary hospitals in the County.

A good many of the Infant Welfare Centres have now started ante-natal clinics. Those at work in the areas under the County Council scheme are Bridgwater and Clevedon, run directly by the County Council, and Crewkerne, East Harptree, Frome, Minehead, Pill, Shepton Mallet, Street and Wells, managed by Voluntary Associations.

**Influence of instrumental delivery on abnormalities, etc., in the children.** A special inquiry was made as to the subsequent history of children born with instrumental delivery, dealing particularly with any abnormalities in the children. As controls exactly the same particulars were obtained for the next normal delivery of the same midwife.

All the children were followed up and reported at the end of the second year.

**Forceps delivery cases — 77**

Child healthy and showing no abnormalities at end of 2nd year	..	60
Rickets — 2. Genu valgum — 1.	.. ..	3
Deaths within a week	.. ..	4
Deaths within 2 years (11 months miliary tuberculosis)	.. ..	1
Stillbirths	.. ..	9
		—
		77
		—

**Controls — 66 cases.**

Child healthy and no abnormalities at end of 2nd year	..	62
Bowing of legs : marked — 1 ; slight — 3 (all late developments)	..	4
		—
		66
		—

The knock-knee and the bowing cases were all later developments due to rickets and nothing to do with the labour or delivery.

The 4 deaths within a week were all due to the difficult delivery and so were at least some of the stillborn cases.

The facts suggest that there is a higher mortality of the child at birth, but if the child survives there is no evidence in my series of any damage to the child.



**Birth Control.** This is conducted along the restricted lines authorised by the Public Health Committee. Applications for the most part go direct to Dr. Halliday. During the year 76 applications were received of which 69 were seen and advised personally by Dr. Halliday, 4 were referred to other clinics, 3 were referred to their own doctor, who undertook to advise. In addition a few tentative enquiries were made, but the applicants did not follow up. The cases were usually seen at small flying clinics and in connection with other maternity and child welfare work.

**Work of Infant Visitors.** The work has been on the same lines as in previous years. The births during 1932 were referred for visits as follows :—

		Rural.	Urban.	Total.
Whole-time County Staff	..	164	453	617
District Nurses	..	3,186	1,061	4,247
		<hr/> 3,350	<hr/> 1,514	<hr/> 4,864

Special supervision is given to illegitimate children, while all the Infant Visitors are instructed to give their chief attention to the cases which, from their earlier visits, they find need special attention. Some cases, for example, are visited only every three to four months, others perhaps twice a month. Supervision is continued for all children to the end of their second year and for those found to require it, up to school age.

**Part I., Children Act, 1908.** Since April, 1930, the supervision of children under seven maintained for reward, apart from their parents, has been transferred to the County Council and is administered by the Public Health Committee. All the Health Visitors have been appointed as Infant Life Protection Visitors, and this work has been organised in the County Health Department.

The children on our Register, at the end of 1932, number 241, and as regards methods of payment, may be grouped as follows :—

Weekly payments in	..	..	..	..	216
Single lump sum payment	..	..	..	..	7
Otherwise paid for (mostly monthly or irregularly)	..	..	..	..	18
					<hr/> 241

Those for whom a lump sum has been paid require and receive special supervision.

The number of foster mothers with one child only—117 ; with two children—23 ; with three children—6 ; with four children—1 ; with over four children—4.

The foster mothers who run a regular baby home are therefore few and those with over four infants are one at Taunton with 29 at the end of 1932 (authorised for 35) ; one at Bridgwater with 11 (authorised for 12) ; one at Portishead with 10 (authorised for 13) ; one at East Harptree with 6 (authorised for 11).

The passing of the Children and Young Persons' Act, 1932, has made a number of alterations as regards details, but has not affected the general principles of administration. For example, the age has been raised from 7 to 9 years so more children are included and for a longer period, earlier notices of taking a child under the Act have to be given, while certain exemptions from supervision are removed. These various sections came into force January 1st, 1933.



TABLE XIV.  
DEATHS UNDER 1 YEAR OLD.

URBAN.	Under 1 week.	1-4 weeks (inclusive)	Total under 1 month.	1-6 months.	6-12 months.	Total Deaths under 1 year.	RURAL.	Under 1 week.	1-4 weeks (inclusive)	Total under 1 month.	1-6 months.	6-12 months.	Total Deaths under 1 year.
Bridgwater .....	4	2	6	3	3	12	Axbridge .....	7	1	8	1	1	10
Burnham .....	5	0	5	0	0	5	Bath .....	7	3	10	1	1	12
Chard .....	5	1	6	0	0	6	Bridgwater .....	3	1	4	3	2	9
Clevedon .....	2	1	3	0	0	3	Chard .....	5	0	5	4	0	9
Crewkerne .....	2	0	2	0	0	2	Clutton .....	1	4	5	5	1	11
Frome .....	2	1	3	0	1	4	Dulverton .....	1	2	3	1	0	4
Glastonbury .....	2	0	2	1	0	3	Frome .....	4	0	4	1	0	5
Highbridge .....	0	0	0	1	0	1	Keynsham .....	3	1	4	1	0	5
Ilminster .....	1	0	1	0	0	1	Langport .....	1	0	1	2	0	3
Midsomer Norton .....	2	0	2	0	2	4	Long Ashton .....	9	2	11	4	2	17
Minehead .....	0	0	0	0	1	1	Shepton Mallet .....	2	3	5	2	1	8
Portishead .....	0	0	0	0	0	0	Taunton .....	5	3	8	3	1	12
Radstock .....	0	0	0	2	1	3	Wellington .....	6	0	6	2	2	10
Shepton Mallet .....	1	2	3	0	0	3	Wells .....	2	1	3	2	1	6
Street .....	0	1	1	1	0	2	Williton .....	3	1	4	2	0	6
Taunton .....	6	4	10	6	3	19	Wincanton .....	6	2	8	2	1	11
Watchet .....	0	0	0	0	2	2	Yeovil .....	6	3	9	4	1	14
Wellington .....	2	1	3	3	0	6							
Wells .....	4	1	5	1	2	8							
Weston-super-Mare .....	4	1	5	5	3	13							
Wiveliscombe .....	0	0	0	0	0	0							
Yeovil .....	5	4	9	1	5	15							
Totals	47	19	66	24	23	113	Totals	71	27	98	40	14	152

**Infant Welfare Centres.** At the end of 1932 the Centres in the County, exclusive of those at Yeovil, Taunton and Weston-super-Mare which are outside the County Scheme, so far as I am aware, were :—

Centre.	Day of week opened.	Frequency of Meetings.
Bridgwater .....	Friday .....	Every week.
Bruton .....	Tuesday .....	Alternate weeks. Doctor once a month.
Chard .....	Friday .....	1st and 3rd Friday in every month. Doctor 1st Friday.
Clevedon .....	Thursday .....	Every Thursday except 1st in month. Doctor last Thursday each month
Crewkerne .....	Tuesday .....	Alternate weeks.
Curry Rivel .....	Thursday .....	1st Thursday in each month.
Frome .....	Tuesday .....	Every week. Doctor once a month.
Harpree .....	Thursday .....	Alternate weeks.
Long Ashton .....	Monday .....	Alternate weeks. Doctor twice a month.
Minehead .....	Tuesday .....	Every week. Doctor 1st Tuesday in every month.
Pill .....	Wednesday .....	1st and 3rd Wednesday in every month.
Portishead .....	Friday .....	Alternate weeks.
Shepton Mallet .....	Friday .....	Alternate weeks.
Street .....	Wednesday .....	Every week. Doctor alternate weeks.
Wellington .....	Thursday .....	Every week. Doctor alternate weeks.
Wells .....	Tuesday .....	2nd and 4th Tuesday in every month.
Wraxall .....	Friday .....	1st and 3rd Friday in every month Doctor once a month (1st Friday).



The Centre at Bridgwater is the only one for which the County Council is directly responsible, but grants are paid to nearly all the others by the County Council and all these are visited during the year, while, so far as possible, a close connection is maintained between their work and the home visits paid by the infant visitors.

A separate ante-natal clinic is held at Clevedon by Dr. Halliday. Twelve sessions were held during the year, 15 different cases attended with 16 attendances. Although expectant women outside Clevedon were invited these midwives only brought up 2 cases.

**Bridgwater Infant Welfare Work.** The following gives some particulars of the work.

*Births.* During 1932 the number of births notified in the Borough (including still-births and cases later transferred to other districts) was 404 ; of these 301 were attended by midwives. A doctor was called in to help the midwife in 79 cases. 12 babies died during the year, a rate of 39.3 deaths per 1,000 births.

<i>Home Visiting.</i>	No. of children on visiting list	..	..	..	963
	Total visits paid to infants	..	..	..	3,978
	Ante-natal visits paid	..	..	..	140
	Total visits paid during 1932	..	..	..	4,118

*Milk Grants.* 85 grants were made, at an estimated cost of £129. As far as possible it is made a condition that cases receiving milk attend at the Centre so that the benefit of the grants can be estimated. Were it not for the milk grants a very considerable number of mothers would be unable to breast feed who now do so.

<i>Centre.</i>	Number of individual children who attended the centre	..	384
	Number of individual mothers who attended the centre	..	301
	Average weekly attendance of children (under 1 year)	..	32
	Average weekly attendance of children (1 to 5 years)	..	45
	Average weekly attendance of mothers	..	68
	Total number of attendances (children 1,823 ; mothers 1,494)	..	3,317
	Total number of medical consultations for infants	..	582
	Total number of medical consultations for women (excluding ante-natal)	..	72

The medical work was carried out by Dr. Halliday.

The figures show that there has been an increase in attendances under every group and the centre is widely appreciated. A few mothers and children come in from the surrounding villages. This has involved a great deal of work on the part of the voluntary helpers who do so much to make the centre a success. The organisation has been hampered by the centre being without an Honorary Superintendent for all the year, but in spite of this most valuable work has been done. All the various activities of the centre have been continued.

Talks or demonstrations have been given by various local helpers and by Miss Lamb and some of the health visitors. The somewhat unsatisfactory accommodation for the centre has prevented these being as valuable as they might be owing to the difficulty of finding a separate room in which the toddlers can play when the lecture or talk is being given. In the summer, if fine, this difficulty does not arise. It is nearly impossible to hold the attention of mothers if the little children have also to be present. Really satisfactory premises would be a great asset to the work.



**Ante-Natal Work.** This was carried on throughout the year both by home visits and by inviting attendance at the Ante-Natal Centre once a month. The total attendances were 102, with 51 women attending. Maternity bags are loaned in suitable cases. This shows a marked increase, the expectant mothers attending increasing from 32 to 51 with a corresponding increase in attendances.

**Baby Hospital, Bridgwater.** At the beginning of 1932 there were 5 babies in the ward and during the year 23 were admitted.

The nature of the defects for which the babies were admitted were:—immaturity 7; mal-nutrition 11; chronic bronchitis 2; sequels to broncho-pneumonia 2; cerebral defects 3; congenital malformations 2; miliary tuberculosis 1.

Of these cases 1 died just after admission and 3 others while in the Hospital. 4 babies were still in the Hospital at the end of the year. Of the remaining 20 cases, 3 were found to have mental defects after admission for mal-nutrition but the physical conditions were improved in Hospital. The other 17 were discharged improved and in nearly all of them our reports show that progress has been maintained. In 1 case the progress is very irregular, but this is a difficult home.

The average length of stay has been 10 to 11 weeks. In the first half of the year the ward was continuously full and cases had to be refused admission, while for the second half, except at the beginning of August when there were 4 babies, the cases were always about 5. This little ward has been found most beneficial and great credit is due to the sister in charge for her devoted care of the individual babies.

**Institutional treatment for children aged 1-5 years.** The Baby Hospital is mainly for children under one year of age and no child over two is admitted.

The County Council has, however, authorised a small amount of money being spent on children up to 5 years. Last year 4 children were sent for nursery treatment and this year 8 were sent at a cost to the County of £100 : 7 : 0d. This cost is very reasonable for the great benefits obtained. Fortunately we have available two excellent homes, one at Wells, one at Batheaston, and 5 children went to the former and 3 to Batheaston. The children suffered from various conditions and each child was most carefully selected by Dr. Halliday as suitable. The children greatly improved with the treatment given, but three are very difficult cases and the improvement may not be maintained.

**Rickets.** To deal with rickets properly in rural areas is a much more difficult administrative problem than in crowded urban areas. The procedure adopted has been described in detail in previous Reports. As modified in 1929, all children under five years showing abnormalities, including rickets, have to be reported to me by the Infant Visitors. The rickets cases are dealt with as a separate group but there is no exact line of demarcation. A good many cases of mal-nutrition and catarrhal conditions which originally were reported as possible rickets are now dealt with under the abnormal group other than rickets. Of these, in 3 the main trouble was not rickets and they were not kept on the Rickets register.

The fresh cases, or suspected cases, dealt with during 1932 were 68. Of the 1931 cases 28 whose treatment was commenced after September 1st, 1931, have to be included to study the results of the treatment given. This makes 96 cases under consideration.



These are classified as follows :—

- A. Definite well marked clinical rickets.
- B. Less definite but apparently true rickets.
- C. Mal-nourished children with doubtful evidence of rickets.

The results of treatment to the end of 1932, judged from the facts recorded on the register forms, were as follows :—

TABLE XV.

RESULTS OF TREATMENT.	A.	B.	C.	TOTAL.
Cured .....	1	12	22	35
No further treatment required and only kept under supervision .....	1	1	5	7
Greatly improved but still under treatment .....	0	2	2	4
Improved—still under treatment .....	0	6	3	9
No visible improvement .....	1	0	0	1
Recent cases still under treatment .....	1	1	5	7
Died .....	1	0	1	2
Left the County .....	0	0	0	0
Definite deformity the main defect and transferred to Orthopaedic Scheme .....	28*	0	1†	29
Referred to School Medical Officer .....	1	0	1	2
<b>Totals .....</b>	<b>34</b>	<b>22</b>	<b>40</b>	<b>96</b>

Note. \* Includes 18 cases referred direct for bony deformity never having been treated for rickets.

† Postural defect, with mild rickets.

The numbers are considerably fewer than in previous years, mainly due to differences of classification, many cases of mal-nutrition, etc., which may have a rickets basis, being transferred to the abnormal group dealt with below. The 40 cases in Group C were probably true early rickets as they rapidly responded to treatment. The difference between the two groups, "rickets" and "abnormal children other than rickets," cannot always be made with accuracy and in future reports the two will be dealt with together.

The "recent cases still under treatment" includes all cases the treatment of which was commenced within four months of the end of the year, i.e., all cases reported after September 1st, 1932.

These results may be considered satisfactory. Excluding the recent cases and the 2 deaths the figures show 41 per cent. cured, 8 per cent. practically cured, 15 per cent. improved but still under treatment and 36 per cent. either with no visible improvement or with definite deformity necessitating transfer to the Orthopaedic Clinic.

The table given in last year's Report left 45 children still under treatment at the end of 1931. All these cases have been on our Rickets register and under treatment. The results as regards these 45 cases are shown in Table XVI.

TABLE XVI.

Cases still under Treatment at the end of 1931.

Results of Treatment.	Reported at end of 1931 as:—			
	Greatly improved still under treatment.	Improved still under treatment.	No visible improvement	Total.
Cured .....	13	16	1	30
No further treatment required, and only kept under supervision .....	0	5	0	5
Improved ; still under treatment .....	0	3	0	3
No improvement .....	0	0	2*	2
Died .....	0	0	0	0
Transferred to Orthopaedic Scheme .....	0	0	0	0
Of School age, and referred for special attention of School Medical Inspector .....	0	5	0	5
	13	29	3	45

\* 1 hopeless home; child admitted to Public Assistance Institution.

1 child mentally defective; treated privately, probably was never a simple case of rickets.



*Distribution of the Cases.* The distribution of the cases accepted for treatment, is shown in the following Table :—

TABLE XVII.

<i>Urban District.</i>	<i>Cases Reported.</i>	<i>Rural District.</i>	<i>Cases Reported.</i>
Bridgwater	3	Axbridge	9
Burnham	0	Bath	6
Chard	1	Bridgwater	3
Clevedon	1	Chard	1
Crewkerne	0	Clutton	2
Frome	2	Dulverton	1
Glastonbury	0	Frome	1
Highbridge	0	Keynsham	0
Ilminster	0	Langport	1
Midsomer Norton	0	Long Ashton	2
Minehead	2	Shepton Mallet	1
Portishead	1	Taunton	4
Radstock	0	Wellington	1
Shepton Mallet	0	Wells	6
Street	0	Williton	4
Taunton	—*	Wincanton	4
Watchet	0	Yeovil	9
Wellington	1		
Wells	2		
Weston-super-Mare	—*		
Wiveliscombe	0		
Yeovil	—*		
Total	13	Total	55

\* Separate Maternity and Child Welfare Authorities.

While this Table is interesting, it cannot be accepted as an accurate representation of the distribution of rickets throughout the County. The disease is an indefinite one in the earlier stages and therefore the degree of notification will in fact turn to some extent upon the alertness of the Infant Visitors and the special attention they give to this condition.

**Abnormal Children other than Rickets.** All abnormal children have now to be reported by the Infant Visitors. These children are dealt with in various ways. Many are seen by Dr. Halliday and the appropriate treatment advised, some are seen by other members of the staff, a few are referred to Infant Welfare Centres. A certain number have been seen by the County Oculist as squint cases and the appropriate treatment given. It is not contemplated to give treatment out of County funds, but the aim is that all children not progressing properly should come under review at the Health Department with the object that adequate treatment, if treatment is necessary, should be advised.

576 reports were received, including a few from doctors or through the Orthopaedic Centres. They include a miscellaneous series of conditions and no scientific classification is possible. They have been grouped under the headings shewn in the table which gives an idea of the conditions to be dealt with. Under "Catarrhal" is included babies suffering from frequent colds, bronchitis, pneumonia, diarrhoea. "Mal-nutrition" includes cases obtaining an inadequate food supply as well as those with defective assimilation. The "Debility" group includes prematurity cases, weaklings after measles or whooping cough or from other cause

Excluding the cases reported as definite or suspected rickets, which are tabulated above, the following table includes the cases which have been reported under other headings.

TABLE XVIII.

CONDITION.	No. Reported.	ACTION TAKEN.						RESULT.				
		Treat- ment by County	Extra Nourish- ment— Milk, Maltoline or Oil and Malt.	Special Obser- vation by Infant Visitor and Report.	Special Reports from County Medical Officers.	Referred to local Infant Welfare Centre.	No action : Under own Doctor or in hospital.	Im- proved.	Still under Obser- vation or Treat- ment.	No Im- prove- ment.	Recent	Moved from County or Died.
		(a) (b) (c) (d) (e) (f)										
Malnutrition	143	3(a)	133	143	24	6	13	54	42	4	42	1
Catarrhal	67	—	62	63	15	1	14	20	20	2	23	2
Debility	81	5a 1d 1f	68	71	20	8	20	30	25	1	20	5
Backward	24	1(c)	16	21	6	3	4	6	7	2	8	1
Minor Postural Defects	106	14(c)*	36	60	35	9	32	35	32	2	22	1
Orthopaedic Defects	30	20(c)*	5	6	1	1	13	—	—	1	3	—
Eye Defects (Squint)	42	37(b)	—	—	—	—	3	—	—	—	—	1
Congenital Defects	34	12(c)*	3	4	3	1	20	10	—	5	4	3
Mental Defects	6	1(a)	—	2	2	1	2	—	—	4	2	—
Other Defects	43	2(f)	19	25	15	3	21	18	6	7	11	1
	576	97	342	395	121	33	142	173	132	28	135	15

**Congenital defects,** e.g., hare lip, cleft palate, spina bifida, talipes, hernia, hydrocephalus, pyloric stenosis, birth injury.

**Miscellaneous,** e.g., glands of neck, otitis media, deafness, skin disorders, intestinal upsets, dentition, unsatisfactory home care, epilepsy, no definite abnormality.

- (a) Mary Stanley Home.  
(b) County Oculist.  
(c) Orthopaedic Clinic.

- (d) Referred to Tuberculosis Clinics.  
(e) Ultra-violet light.  
(f) Institution Treatment.

\* Result of Orthopaedic treatment not entered here.



The table shows that many children get treatment with maltoline, oil and malt, etc., or are given treatment through one or more of the various county schemes. For others it is only necessary to keep them under special observation. The number dealt with through their private doctors is increasing. More children are being referred by doctors to the County Health Visitors or to Infant Visitors for help with extra-nourishment, regulation of diet, etc., while the doctor provides any medical treatment required. It is to be hoped that this friendly co-operation will continue to develop.

To enable these abnormal children to be seen, and to encourage the infant visitors in their work, a system of special occasional clinics by Dr. Halliday has been established. These "flying clinics" have been arranged quite irregularly as the occasion arises and held at any convenient place. At these, the infant visitors present the infants and children under three years under their care about whom they are not satisfied as to their progress while they also discuss any difficulties in their work. These are very useful in places where there are no infant welfare centres. The method of work varies from the collection of a dozen or more children at the nurse's house, or at a room taken for the purpose, to the visiting of three or four scattered families in their own homes. Some ante-natal work is occasionally done at these visits. Sixty-three such flying clinics were held during the year. The usual number of children seen at each was 9 to 10. The total number of infants examined was 530, while in addition 73 mothers were given advice. The ante-natal attendances were 28.

During the year a rather more elaborate arrangement was tried in 5 areas, *i.e.*, at Coleford, Dulverton, North Curry, Highbridge and Kilmersdon. It was called a "Mothers' and Babies' Afternoon" and in addition to Dr. Halliday seeing special children, Miss Lamb brought posters and exhibits and gave practical demonstrations. Voluntary helpers did the organising and very kindly provided tea. These meetings aroused great interest the only disadvantage being that in each place these workers were pressed to come again and at regular intervals, which is impracticable with the present staff.

The extension of this valuable service is hindered by shortage of staff, and with an additional Medical Officer this service could be greatly extended. In addition, a good many children are referred to County Medical Officers engaged in school inspection and other medical work, and they examine and report on the children. In one way and another a material proportion of these abnormal infants obtain medical attention and the necessary treatment.

The total number of children now included on our registers as under special observation at the end of 1932 as "abnormal" is 716.

### **ORTHOPAEDIC SCHEME.**

The County Scheme and the results of working during 1932 are described in considerable detail in my Report for 1932 as School Medical Officer.



The new cases seen and dealt with through the Clinics were as follows :—

**Cases seen at the Clinics.**

Tuberculosis of bones and joints	...	...	...	...	11
Spastic paraplegia and hemiplegia	...	...	...	...	12
Infantile paralysis (poliomyelitis)	...	...	...	...	12
Osteo-myelitis	...	...	...	...	8
Congenital dislocation of the hip	...	...	...	...	7
Club foot	...	...	...	...	12
Other congenital deformities	...	...	...	...	10
Scoliosis	...	...	...	...	9
Torticollis	...	...	...	...	6
Diseases and injuries of the toes	...	...	...	...	15
Postural deformities :—					
General defects of posture	...	...	...	...	27
Flat foot (often with other postural deformities)	...	...	...	...	27
Postural scoliosis	...	...	...	...	2
Knock knees (many old rickets)	...	...	...	...	77
Bow-legs	...	...	...	...	30
					<hr/> 163
Rickets (not specially postural)...	...	...	...	...	15
Results of injuries	...	...	...	...	4
Other defects and deformities	...	...	...	...	38
					<hr/> 322

The number of new cases seen is 55 less than in the previous year.

Great attention is paid to the prevention of crippling defects along the lines of the prevention of postural defects and their treatment in the very early stages, rickets scheme (*q.v.*) and the prompt treatment of poliomyelitis before the paralysis has affected muscle utility or, when affected, to restore to use as completely as possible. Considerable steps are also in operation to reduce tubercular infections of bones and joints from human sources but not much is done to reduce bovine infections. The latter is mainly a national question and large scale measures are necessary.

**HEALTH PROPAGANDA.**

A great deal of work was carried out during the year, most of it by Miss Lamb, B.Sc., the County Lecturer, but a good deal indirectly in other ways.

Further improvements have been made in the Health Exhibition and the provision of the trailer to attach to Miss Lamb's car makes a much more efficient method of taking it about, and with less damage to the exhibits. It is now possible to take it into the villages. Sixteen showings of the exhibition were made during the year under different conditions. Four were arranged by local bodies, two being Women's Institutes, but one was very badly attended. Nine evenings in schools were held. This was a new attempt to bring this education into the villages with little expense. The school is borrowed for the evening and the exhibits are laid out in one of the class rooms. Patterns are cut out and literature sold. Short talks on different subjects are given during the evening. With the co-operation of the teachers these have been a great success and are reaching some centres where there has never been any organised health work.

During the year Miss Lamb gave 22 talks at various Infant Welfare Centres in the county. In addition 5 talks were held at Flying Clinics. At 2 of the centres (Crewkerne and Clevedon) the Health Exhibition was on view at the same time.



An important feature of the work is giving lectures and talks to various voluntary bodies, such as Women's Institutes, Mothers' Unions, Red Cross Associations and the like. In all 28 such lectures were given, most of which were illustrated with lantern slides. Their health education utility extends far beyond the actual lecture as they help to create a real interest in health matters which is fostered by the "*Better Health*" journal, sale of literature, etc.

Great attention still continues to be paid to the school side of propaganda work. A special course for teachers, consisting of 9 lectures on Physiology and Hygiene, was given at the following centres :—

Bristol	average attendance 6 teachers.		
Taunton	"	"	31
Yeovil	"	"	20
Somerton	"	"	13
Chard	"	"	15
Bridgwater	"	"	59

The courses were illustrated by posters and diagrams, while useful literature was sold or given away.

A tenth lecture on social hygiene given by Dr. Stirling, for men, and by Dr. Halliday, to the women teachers, was given in every case where an audience could be secured.

Most teachers welcome short talks on health matters to the children, and the opportunity of being in the district often enables such a talk to be given. Miss Lamb visited 111 schools during the year and in most cases a lesson on hygiene was given.

Two interesting health education evenings were held at Bawdrip and Croscombe respectively. Both were held at the School with the co-operation of the Head Teacher. They were well attended by school managers and parents. At High Ham an "open day" was held and the Exhibition was displayed, also a demonstration of food stuffs for the mid-day meal.

The courses of lectures to nurse-midwives were continued and given at two centres—Crewkerne and Langport. The lectures were given by Dr. Halliday, Miss Lamb and Miss Gane or Miss Stewart. As all the nurses throughout the county had had the opportunity to attend a course of these lectures a new scheme was advisable. This took the form of a District Nurse's study circle. This was tried out at Bath and was a great success, with an average attendance of 25. A series of seven lectures, one each week, were given by different speakers, while a Chairman was also arranged. Nurses were notified well before hand and given lists of books which would make suitable reading in preparation for these lectures and every effort was made to induce them to take part in the discussions. Books were lent from the County Library and also from the Midwives' Institute and their distribution was superintended by Miss Lamb.

Three lectures were given by Miss Lamb to Tuberculosis Care Committees, I gave two to others, while Dr. Short and other tuberculosis officers gave several. These are all useful as they help to get a wider audience interested in our tuberculosis work.

In addition to work specifically undertaken by Miss Lamb, a great deal of health propaganda work is performed by the County Health Department as part of its ordinary work. This especially applies to tuberculosis, infant welfare work and some aspects of school hygiene. There is always going on, in addition, a considerable sale or free distribution of health literature.

The Somerset issue of the journal "*Better Health*" is an important part of our propaganda work. It includes specially written articles written for the Somerset pages of the Journal. Its monthly circulation at the end of the year was over 1,600 copies. This is satisfactory since it is only distributed to those who ask for it or who will read it and outside certain groups they have to pay the postage.



Valuable help towards a sound health standard in the county continues to be given by the Somerset Rural Community Council, as they arranged a number of lectures. In the autumn a tour for Girl Guides and others was undertaken by Miss M. Stevens, of the Health and Cleanliness Council, and 10 addresses were given which were well attended. In addition 7 single lectures were given at various centres.

All this varied work is undoubtedly bearing fruit. It is bound to be a slow and somewhat difficult task, but it is one of immense importance and value.

### **Mental Treatment Act, 1930.**

Under the Act out-patient clinics have been established as set out below, while by arrangement, the Mental Deficiency Acts Committee inspectors are available to visit the homes and link them up with the Mental Hospitals.

Place of Clinic.	Started.	Medical Officer.	No. of sessions.	Somerset cases seen.	Av.attendance per session.
Taunton and Somerset Hospital.	April, 1931	Dr. H. T. S. Aveline	25	28	4
Shepton Mallet and District Hospital.	April, 1931	Dr. M. McGarvey	24	9	1.75
Weston-super-Mare Hospital.	December, 1932	„ „	2	5	4

**Taunton Clinic.** Of the 28 cases 9 were mental defectives, complicated in 4 of them with epilepsy. One of the latter was subsequently certified and admitted to the Mental Hospital. Several other cases had to be certified. Dr. Aveline recommends the provision of a nursing home, staffed by nurses with mental hospital experience, to remove cases from unsuitable environments and to allow for more observation of borderland cases.

**Shepton Mallet Clinic.** Two of the cases were certified and sent to Mental Hospitals, 1 case has been referred to the Mental Deficiency Act Committee. Three cases showed considerable improvement.



## GENERAL SANITARY ADMINISTRATION.

### WATER SUPPLIES.

Under Section 57 of the Local Government Act, 1929, the County Council has power to make grants towards the provision of water supplies in individual parishes and for the first time is directly concerned in water problems.

Under this Act contributions were passed during the year for the following water supplies :—

Yeovil R.D.C.	water supply for	Odcombe.
Langport R.D.C.	„ „ „	Ash and Long Load.

In my report for 1930, a comprehensive account was given of all the water supplies in the county.

Since that date additions have been made in the form of water supplies for a few parishes, while a few big schemes such as the North Marsh supply have been completed. There is great need for each Rural District Council to consider their area as a whole and work out a comprehensive scheme for the supply of all their parishes with a pure and adequate supply of water. The operation of Section 57 is tending to make the provision of water supplies much less parochial and far more comprehensive in scope.

### RIVER POLLUTION AND SEWAGE.

Little difficulty was experienced during the year from effluents from milk depots in the county, but two continued to give trouble. In one case this was due to the large extension of the work done and the great quantity of milk handled. The existing treatment works were efficient when erected and for many years afterwards, but are now very inadequate. In consequence an imperfectly purified effluent is being discharged into the river. This is being remedied by a new pipe line taking the milk washings and other drainage material into the river near its mouth and where it is tidal.

The trouble at the other milk depot situated at Sparkford is also due to inadequate treatment plant and is only part of the contamination, the rest being from the drainage of the village. Proper plans for a comprehensive sewerage scheme have been drawn up, but have not been put into operation owing to the expense.

The improvements at the Taunton sewage works have been completed and are in operation and it is hoped they will remedy the serious pollution of the Tone from this source. Other possible sources of pollution of this river have been investigated during the year. In two instances sewage treatment works have become inadequate and advice and help have been given so as to restore them to a satisfactory condition.

Many sewage disposal works were visited, and the majority were working fairly well, but some required attention. Seventy-two samples of sewage effluent, etc., were examined in the County Laboratory.

All complaints of alleged river pollution were promptly investigated, while many visits were paid to works and other places from which possible river pollution might occur. Many samples were personally collected. In all the cases, when unsatisfactory conditions were met with they have been dealt with by the persons concerned, and it was not necessary for the Public Health Committee to report any case to the County Council for legal action.



### ADMINISTRATION OF THE HOUSING ACTS.

A comprehensive report on the subject of housing, particularly dealing with housing construction since the War, was given in my Report for 1928, so the subject is not dealt with in detail in this Report.

The following shows the housing construction since 1921 :—

	Urban.	Rural.	Total.
1921	493	685	1178
1922	395	637	1032
1923	279	375	654
1924	432	551	983
1925	581	812	1393
1926	974	1217	2191
1927	1393	1442	2835
1928	960	718	1678
1929	857	1070	1927
1930	887	833	1720
1931	654	837	1491
1932	746	724	1470

These figures show very little slackening off in housing construction, but in view of the removal of the subsidy given under the 1924 Act, there will be a great drop for 1933.

The detailed census figures are now available. They show that the number of persons per "structurally separate dwelling," and this counts separately occupied flats in one building as separate dwellings, is only about 3.75 per house. With separate houses this could safely be put at 4, but even at 3.75 this would require each year for the normal inter-census increase of population (which for 1921-31 was 1,896 Urban and 7,401 Rural) 51 Urban area houses and 197 Rural area, total for the County 248. The table given above shows that the average yearly housing construction over this ten year period was 725 Urban, 834 Rural, total 1,559. During the 10 inter-census years 276 Urban and 357 Rural (*i.e.*, 633 County) houses were officially closed as unfit.

Allowing for the houses closed as unfit these figures show housing construction as over five times the estimated need for the natural increase in population. Not only has the housing shortage occasioned by the cessation of building during the War been made up but a good deal has been done to remedy the tightness of housing accommodation, which was very prevalent in some areas and particularly in the majority of villages. The facts indeed suggest overbuilding, and I think there would be evidence of this but for another consideration which is brought out in the census return. The tables show that for the County (including Bath) an increase of 1.85 per cent. in the population in private families has been accompanied by an increase of 12.82 per cent. in the actual number of private families themselves, and that the average size of family has thereby been reduced by 9.7 per cent., *i.e.*, from 3.91 in 1921 to 3.53 in 1931. This is a very considerable fall. Each family as a unit requires a structurally separate dwelling, whether three or six or more in family and a large proportion of the added houses built has been absorbed by the breaking up of families into smaller units. The rooms per family in 1921 were 5.29, in 1931 the figure is 5.11, while the "persons per room" figure for 1921 was 0.74 and for 1931 was 0.69. In other words there is a marked reduction in the density of persons per house or room. The census gives for the whole County over the 10 years an increase of 15,320 houses. This is a marked increase which, as shown above, is only partly used for the natural increase of population, but is mainly absorbed in a better spacing out of the people.



In census returns the ratio of more than two persons per room is utilised as an approximate comparative index figure for the purpose of measuring the prevalence and distribution of overcrowded conditions. The census return gives the following table :—

	Somerset (whole county)	
	1931	1921
Private families with density of more than 2 persons per room	1,323	1,796
Percentage to total private families .. .. .	1.04	1.59
Population in such families .. .. .	10,233	14,400
Percentage to total private family population .. .. .	2.28	3.26

This table shows that the number of "overcrowded" families has been reduced by 473 and their population by 4,167. The percentage to total private family population in 1911 was 3.88 so it is a continued reduction.

Unfortunately the rents chargeable are mostly above the ability to pay of the agricultural labourer or of the low wage worker. The chief housing needs at the present time are to close unfit houses and to be able to provide houses at a low rental to take the displaced from the closed unfit houses and for those without houses who can only pay a low rent. Under the 1930 Housing Act, a considerable subsidy is still paid for houses built to provide for the housing accommodation of persons dispossessed by housing closures. This with present low costs of construction and cheap money should enable many houses to be built at low cost and let at low rents. Many unfit houses could then be closed.

Under Section 34 of the Housing Act, 1930, the County Council has to contribute £1 per annum, in respect of each house required to be provided for the accommodation of the agricultural population. During 1932 the grants authorised were for 14 houses all for Yeovil Rural.

Table XX. shows that only 19 houses were closed as unfit during the year, the figure for the previous year being 13. This is a very small proportion of those which are unfit but which are not being dealt with for economic reasons. Houses found defective but not unfit for habitation numbered 3,877. 4790 houses were inspected under the Housing Acts during the year.

### Housing (Rural Workers) Acts, 1926 and 1931.

During the year ended 31st December, 1932, grants were authorised by the County Council under this Act in respect of 19 dwellings, amounting to £1,750 : 0 : 0d., in the following areas :—

Rural District.	No. of Dwellings.	Amount.
		£
Bridgwater	2	150
Langport	11	1,000
Wincanton	6	600
	—	—
	19	£1,750
	—	—

The total grants authorised under the Acts to the 31st December, 1932, amounted to £11,423 13s. 4d. in respect of 126 dwellings. Of these, grants amounting to £8,295 13s. 4d. in respect of 92 dwellings were paid prior to that date, and in the remaining cases the works were not completed or the grants were not accepted by the applicants. One grant of £200 authorised in 1928 has been repaid by the applicant.

TABLE XIX.

NUMBER OF NEW HOUSES ERECTED DURING THE YEAR.

AREA.	With State assistance.		Otherwise	Total.
	By the Local Authority.	By other bodies or persons.		
RURAL.				
AXBRIDGE .....	18	0	114	132
BATH .....	0	0	75	75
BRIDGWATER .....	8	48	0	56
CHARD .....	6	0	13	19
CLUTTON .....	18	0	16	34
DULVERTON .....	0	0	7	7
FROME .....	0	5	0	5
KEYNSHAM .....	0	0	98	98
LANGPORT .....	28	0	14	42
LONG ASHTON .....	0	0	110	110
SHEPTON MALLET .....	0	0	10	10
TAUNTON .....	0	0	0	0
WELLINGTON .....	0	3	0	3
WELLS .....	0	0	18	18
WILLITON .....	34	0	15	49
WINCANTON .....	22	0	11	33
YEOVIL .....	12	0	21	33
All Rural Areas	146	56	522	724
URBAN.				
BRIDGWATER .....	109	0	5	114
BURNHAM .....	0	14	0	14
CHARD .....	0	0	1	1
CLEVEDON .....	0	0	26	26
CREWKERNE .....	20	0	6	26
FROME .....	0	0	13	13
GLASTONBURY .....	0	0	8	8
HIGHBRIDGE .....	0	0	8	8
ILMINSTER .....	0	0	3	3
MIDSOMER NORTON .....	0	0	13	13
MINEHEAD .....	0	0	18	18
PORTISHEAD .....	0	0	13	13
RADSTOCK .....	0	0	3	3
SHEPTON MALLET .....	0	0	5	5
STREET .....	0	0	10	10
TAUNTON .....	0	1	69	70
WATCHET .....	0	0	7	7
WELLINGTON .....	0	0	0	0
WELLS .....	40	0	15	55
WESTON-S-MARE .....	0	0	121	121
WIVELISCOMBE .....	6	0	2	8
YEOVIL .....	130	0	80	210
All Urban Areas	305	15	426	746
County	451	71	948	1470



TABLE XX.  
HOUSING INSPECTIONS.

Area.	Houses inspected for housing defects.	Houses specially inspected under Housing Acts.	Number Found unfit.	Number defective but not unfit.	Closing Orders made.
RURAL.					
AXBRIDGE .....	728	579	7	554	0
BATH .....	72	32	2	26	0
BRIDGWATER .....	442	20	10	305	0
CHARD .....	276	171	1	181	0
CLUTTON .....	219	143	14	142	0
DULVERTON .....	86	86	0	86	0
FROME .....	152	30	0	140	0
KEYNSHAM .....	165	136	1	134	0
LANGPORT .....	375	235	8	214	0
LONG ASHTON .....	185	125	44	19	13
SHEPTON MALLET .....	384	377	8	153	0
TAUNTON .....	952	787	8	109	0
WELLINGTON .....	67	31	3	4	0
WELLS .....	290	258	5	111	1
WILLITON .....	69	31	12	12	0
WINCANTON .....	206	206	28	115	0
YEOVIL .....	371	12	8	83	0
All Rural Areas.	5,039	3,259	159	2,388	14
URBAN.					
BRIDGWATER .....	219	109	64	129	0
BURNHAM .....	19	1	1	1	0
CHARD .....	78	19	5	15	0
CLEVEDON .....	32	6	0	15	0
CREWKERNE .....	53	53	2	23	2
FROME .....	243	148	2	167	0
GLASTONBURY .....	81	24	0	33	0
HIGHBRIDGE .....	10	10	0	4	0
ILMINSTER .....	66	30	0	42	2
M'SOMER NORTON .....	50	50	18	32	0
MINEHEAD .....	58	10	3	55	0
PORTISHEAD .....	23	5	0	3	0
RADSTOCK .....	433	0	0	416	0
SHEPTON MALLET .....	451	429	26	74	0
STREET .....	61	0	2	20	0
TAUNTON .....	772	83	34	159	0
WATCHET .....	85	7	0	16	0
WELLINGTON .....	158	71	0	49	0
WELLS .....	98	0	2	31	0
WESTON-S-MARE .....	863	474	0	170	0
WIVELISCOMBE .....	10	2	0	0	0
YEOVIL .....	89	0	0	35	1
All Urban Areas.	3,952	1,531	159	1,489	5
County.	8,991	4,790	318	3,877	19

## SUPERVISION OVER THE FOOD SUPPLY.

A. **Slaughter Houses and Meat Supervision.** The Public Health (Meat) Regulations 1924, came into operation April 1st, 1925. A summary of their requirements was set out in my Report for 1925.

Theoretically these regulations should enable every animal slaughtered for human food to be inspected and passed or rejected for human consumption. In practice this does not by any means occur, although the regulations mark a considerable advance in the control over meat.

TABLE XXI.  
SLAUGHTER HOUSES.

Sanitary Area. (Urban).	Licensed.	Registered.	Total.	Sanitary Area. (Rural).	Licensed.	Registered.	Total.
Bridgwater	4	10	14	Axbridge	18	8	26
Burnham	3	0	3	Bath	2	11	13
Chard	3	1	4	Bridgwater	18	7	25
Clevedon	—	—	P	Chard	14	19	33
Crewkerne	0	3	3	Clutton	8	14	22
Frome	1	7	8	Dulverton	7	2	9
Glastonbury	2	4	6	Frome	11	0	11
Highbridge	4	1	5	Keynsham	5	7	12
Ilminster	2	3	5	Langport	14	2	16
Midsomer Norton	2	2	4	Long Ashton	2	11	13
Minehead	—	—	P	Shepton Mallet	16	0	16
Portishead	2	2	4	Taunton	34	0	34
Radstock	3	2	5	Wellington	6	0	6
Shepton Mallet	4	2	6	Wells	16	2	18
Street	5	0	5	Williton	9	6	15
Taunton	5	7	12	Wincanton	3	17	20
Watchet	1	2	3	Yeovil	29	0	29
Wellington	2	7	9				
Wells	5	6	11				
Weston-super-Mare	—	—	P				
Wiveliscombe	2	0	2	Total.	212	106	318
Yeovil	9	0	9				
Total	59	59	118	County Total	271	165	436

P=Public Slaughter-house.



TABLE XXII.  
MILK PRODUCERS AND DISTRIBUTORS.

Sanitary Area. (Urban).	Producers.	Distributors.			Sanitary Area. (Rural).	Producers.	Distributors.		
		Also Producers.	Not Producers.	Total.			Also Producers.	Not Producers.	Total.
Bridgwater .....	9	7	60	67	Axbridge .....	770	70	15	85
Burnham .....	19	0	17	17	Bath .....	166	56	16	72
Chard .....	11	4	7	11	Bridgwater .....	764	206	16	222
Clevedon .....	26	11	13	24	Chard .....	644	56	3	59
Crewkerne .....	10	10	5	15	Clutton .....	460	123	23	146
Frome .....	15	10	21	31	Dulverton .....	142	142	7	149
Glastonbury .....	59	11	5	16	Frome .....	346	78	0	78
Highbridge .....	12	3	6	9	Keynsham .....	108	42	9	51
Iminster .....	9	7	4	11	Langport .....	420	110	1	111
Midsomer Norton .....	35	12	5	17	Long Ashton .....	423	60	31	91
Minehead .....	8	8	2	10	Shepton Mallet .....	411	32	1	33
Portishead .....	12	8	4	12	Taunton .....	379	33	74	107
Radstock .....	8	4	14	18	Wellington .....	135	38	0	38
Shepton Mallet .....	33	6	5	11	Wells .....	520	143	11	154
Street .....	27	12	5	17	Williton .....	303	43	5	48
Taunton .....	3	24	37	61	Wincanton .....	522	35	5	40
Watchet .....	4	2	6	8	Yeovil .....	471	46	6	52
Wellington .....	60	16	7	23					
Wells .....	0	0	5	5					
Weston-super-Mare .....	5	2	86	88					
Wiveliscombe .....	3	3	0	3					
Yeovil .....	19	6	37	43					
					Total	6,984	1,313	223	1,536
Total	387	166	351	517	County Total	7,371	1,479	574	2,053



**B. Milk Supply.** Table XXII gives the number of producers and distributors registered.

The Milk and Dairies Order, 1926, came into operation in October, 1926, and an account of its aims was given in my 1927 Report. Improvements are being effected as the result of the working of the Order, but only very slowly, and in some districts very inadequate attention is being paid to this important work. During the year no Clean Milk Demonstrations were given in the County and no Clean Milk competitions were held.

During the first part of the year another system of examining milk samples for tubercle bacilli was tried. Samples were collected as delivered to milk depots and sent in batches of 15 to the Laboratory. These were bulked at the Laboratory and one mixed sample containing part of 5 samples used for inoculation. In view of the sensitiveness of the guinea pig to tubercle bacilli by inoculation it was hoped that this dilution would not be sufficient to affect the number of positive results. Incidentally the samples were required for other milk examinations so if the method had been a success a great economy of time and money would have been effected. As regards the tuberculosis side this hope did not materialise. In all 400 herds were examined in this way and of these 5 were positive, tubercle bacilli being demonstrated. This is not a reliable percentage and obviously the method was unsatisfactory. In two instances a cow with tuberculosis of the udder was found on one farm in each group, in one case a cow killed after the first sampling, but before the inspection, was the probable source of infection. In the remaining two cases no tuberculous cow could be found on any of the farms.

This procedure was given up and in the autumn we reverted to the original method of examining milk samples from single herds collected at the cowsheds. 140 such samples were collected between September and the end of the year and of these 8 were positive, a percentage of 5.7. The percentage in previous years has been quite constantly about 2.2, so this increase of  $2\frac{1}{2}$  times as much is disquieting. In 5 out of the 8, the tuberculous cow was at once picked out by the Veterinary Surgeon and the milk by direct examination showed tubercle bacilli. In another case the suspected animal was proved by guinea pig inoculation and found on post mortem to have udder tuberculosis. In one of the other two herds a cow with a tuberculous udder was found after the herd had been bacteriologically tested in sections. In the other herd two aged cows had been sold between the sampling and examination and one or other was probably the cause of the trouble.

The percentage positive and the cases found by direct examination are both in a much higher proportion than in previous years and suggest not only that more cases of udder tuberculosis but more advanced cases are being left in the herds. Very similar figures are being obtained for 1933 samplings.

A further 8 samples of milk were reported by outside authorities, *i.e.*, Bristol 4, London County Council 2, Croydon 1, Cardiff 1, to contain tubercle bacilli. Two of these were obtained from a creamery and it was impossible to trace the origin of the milk as it was all mixed. On three farms cows with udder tuberculosis were detected, two cows being found on one farm. In two cases no tuberculous cows were found but suspicious animals had been destroyed since the original samples were collected and were probably the source of infection. The other cow was completely negative and when the herd was sampled in 7 batches each group was negative. The original positive sample was taken in course of delivery and quite possibly other milk had been brought in and mixed in the churn.

**Graded Milks.** The number of producers supplying graded milks showed a diminution of Grade A producers, but the same number for all three grades.

The following shows the figures at the end of the years referred to:—

	1924	1925	1926	1927	1928	1929	1930	1931	1932
Certified Milk	1	4	3	6	4	4	4	4	5
Grade A (tuberculin tested)	1	5	7	9	8	6	6	6	8
Grade A	2	4	6	11	12	14	14	13	10

**C. Administration of the Sale of Foods and Drugs Acts.** During the year 1,057 samples were examined. Of these, 23 were submitted by private individuals and firms, and 21 were "Appeal to cow" samples. The following Table shows the nature of the 1,013 samples submitted by the police, excluding the 21 "Appeal to cow" samples.



TABLE XXIII.

Article.	Number examined.	Number genuine.	Number adulterated.	Per cent. adulterated.
Dairy Products —Milk	509	490	19	3.7
Cream and Canned Cream	30	30	0	0
Cheese	10	10	0	0
Butter	50	50	0	0
Condensed Milk	19	19	0	0
Dried Milk	8	8	0	0
Edible Fats	25	25	0	0
Cereals	21	21	0	0
Meat and Fish Products	37	37	0	0
Tea, Coffee, Cocoa	15	15	0	0
Condiments	37	36	1	2.7
Saccharine Products	24	24	0	0
Miscellaneous Groceries	78	78	0	0
Beer, Spirits and Wine	94	93	1	1.1
Drugs	56	55	1	1.8
Total	1,013	991	22	2.2

The samples adulterated, as shown in the Table, were mostly milk, the adulteration of other products being very few. 19 milk samples were reported as adulterated. No legal proceedings were taken in 8, six were dismissed, while in the remaining 5 convictions were obtained. The legal position as regards chemical milk adulteration remains very unsatisfactory.

TABLE XXIV.

The number of samples analysed and the number adulterated during the past 12 years.

	Year.	Number examined.	Number adulterated.	Percentage adulterated.
Somerset	1921	1,084	67	6.2
"	1922	1,075	50	4.65
"	1923	1,049	40	3.8
"	1924	1,045	48	4.6
"	1925	1,042	37	3.5
"	1926	1,044	29	2.8
"	1927	1,067	39	3.6
"	1928	1,043	25	2.4
"	1929	1,038	23	2.2
"	1930	1,033	30	2.9
"	1931	997	32	3.2
"	1932	1,013	22	2.2
England and Wales	1931	136,169	6,324	4.6

## PUBLIC HEALTH LABORATORY.

The Laboratory continues to be extensively made use of by the different Local Authorities for the examination of water supplies, sewage samples, diagnosis of infectious cases, etc. It is also very valuable in connection with Tuberculosis, School Work, Venereal Diseases and other work directly under the County Council.

During the past year 9,315 samples have been examined (excluding all food and drug samples) as follows :—

### Drinking Water :—

Bacteriological examinations	...	...	...	...	663
Chemical analyses	...	...	...	...	25
Sewage, sewage effluents, rivers and streams	...	...	...	...	72
Swabs for diphtheria bacilli	...	...	...	...	4,863
Sputum for tubercle bacilli	...	...	...	...	1,590
Blood for typhoid, paratyphoid, etc.	...	...	...	...	75
Hairs and skin for ringworm	...	...	...	...	199
Specimens for Venereal Disease	...	...	...	...	527
Urine for tubercle bacilli, B. coli, sugar, albumin, casts, etc.	...	...	...	...	176
Faeces for typhoid and dysentery	...	...	...	...	41
Milk for tubercle bacilli	...	...	...	...	357
Milk for bacteriological examination (general)	...	...	...	...	450
Milk ; Grade A, Grade A (T.T.), etc.	...	...	...	...	102
Cerebro-spinal fluid and Post-nasal swabs	...	...	...	...	12
Other specimens	...	...	...	...	163
Total					9,315

Of the 4,863 swabs examined, 616 showed the presence of diphtheria bacilli ; of the 1,590 specimens of sputum, 401 contained tubercle bacilli ; of the 75 specimens of blood, 24 gave a positive Widal reaction ; of the 199 specimens of hair, 76 contained ringworm fungi ; and of the 527 specimens for venereal disease, 76 contained gonococci.



TABLE A.

## Causes of, and Ages at Death during the Year 1932.

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.								
	All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.
Typhoid and paratyphoid fevers	4	0	0	0	1	0	1	2	0
Small-pox	0	0	0	0	0	0	0	0	0
Measles	6	1	1	1	2	1	0	0	0
Scarlet Fever	1	0	0	0	0	0	1	0	0
Whooping Cough	9	5	2	1	1	0	0	0	0
Diphtheria	17	0	0	5	9	0	1	1	1
Influenza	198	3	3	4	4	9	11	56	108
Encephalitis Lethargica	8	0	0	1	0	0	3	2	2
Cerebro-spinal fever	1	0	0	0	1	0	0	0	0
Tuberculosis of respiratory system	226	0	0	1	4	40	112	56	13
Other Tuberculous Diseases	47	3	9	4	5	6	7	8	5
Syphilis	7	1	0	0	0	0	1	3	2
General paralysis of the insane, tabes dorsalis	12	0	0	0	0	0	3	6	3
Cancer, Malignant Disease	700	2	0	0	2	2	24	282	388
Diabetes	73	0	0	0	0	1	7	23	42
Cerebral Haemorrhage, etc.	294	0	0	0	0	0	3	56	235
Heart Disease	1079	1	0	0	1	12	28	232	805
Aneurysm	9	0	0	0	0	0	1	4	4
Other circulatory diseases	275	0	0	1	0	0	5	47	222
Bronchitis	213	9	1	1	1	1	3	19	178
Pneumonia (all forms)	203	28	11	6	9	7	32	41	69
Other Respiratory Diseases	54	4	1	0	1	0	9	11	28
Peptic Ulcer	42	0	0	0	0	0	6	24	12
Diarrhoea, etc.	39	15	2	3	1	0	5	3	10
Appendicitis	40	1	1	1	4	5	9	12	7
Cirrhosis of Liver	17	0	0	0	0	0	0	11	6
Other diseases of liver, etc.	24	0	0	0	0	0	2	5	17
Other digestive diseases	105	3	1	1	4	4	14	25	53
Acute and Chronic Nephritis	218	0	0	1	2	4	17	73	121
Puerperal Sepsis	5	0	0	0	0	1	4	0	0
Other Puerperal causes	19	0	0	0	0	3	16	0	0
Congenital Debility, Premature Birth, Malformations, etc.	171	166	0	3	1	0	1	0	0
Senility	367	0	0	0	0	0	0	1	366
Suicide	54	0	0	0	0	2	13	27	12
Other violence	163	7	1	6	15	28	29	37	40
Other defined diseases	417	25	3	2	10	19	51	122	185
Diseases ill-defined or unknown	10	0	0	0	0	0	0	2	8
	5127	274	36	42	78	145	419	1191	2942



TABLE B.

## Causes of Death at all Ages in each District during the Year 1932.

## RURAL DISTRICTS.

## URBAN DISTRICTS.

CAUSES OF DEATH.	RURAL DISTRICTS.																	URBAN DISTRICTS.																	COUNTY TOTAL.									
	AXBRIDGE.	BATH.	BRIDGWATER.	CHARD.	CLUTTON.	DULVERTON.	FROME.	KEYNSHAM.	LANGFORD.	LONG ASHTON.	SHEPTON MAULET.	TAUNTON.	WELLINGTON.	WELLS.	WILTON.	WINCANTON.	YEovil.	TOTAL RURAL DISTRICTS.	BRIDGWATER.	BURNHAM.	CHARD.	CLEDON.	CREWKERNE.	FROME.	GLASTONBURY.	HIGHBRIDGE.	ILMINSTER.	MIDSOMER NORTON.	MINEHEAD.	PORTISHEAD.	RADSTOCK.	SHEPTON MAULET.	STREET.	TAUNTON.		WATCHET.	WELLINGTON.	WELLS.	WESTON-SUPER-MARE.	WIVELISCOMBE.	YEovil.	TOTAL URBAN DISTRICTS.		
Typhoid & Paratyphoid Fevers	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Small Pox	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scarlet Fever	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	6		
Whooping Cough	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Diphtheria	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Influenza	13	6	11	14	5	1	4	6	7	4	6	2	2	7	13	9	9	124	2	2	0	0	0	0	0	1	1	1	1	4	2	0	2	2	13	2	7	0	11	1	6	74	198	
Encephalitis Lethargica	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	3	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	13	0	7	0	0	0	0	1	5	8
Cerebro Spinal Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	5	8	
Tuberculosis of respiratory system	9	12	13	4	5	1	5	10	6	9	0	8	2	7	7	9	9	116	12	3	2	5	3	5	5	5	2	3	4	4	2	0	2	3	17	1	7	1	14	0	15	110	226	
Other Tuberculous Diseases	8	2	3	0	1	0	1	1	3	1	4	0	2	1	0	2	0	29	2	1	0	1	0	1	0	1	0	0	0	0	0	0	0	2	0	0	1	6	0	3	18	47		
Syphilis	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	3	5	7
General paralysis of the insane	0	1	0	0	0	1	1	0	1	0	1	0	0	1	0	0	0	1	7	1	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5	12	
tabes dorsalis	0	1	0	0	0	1	1	0	1	0	1	0	0	1	0	0	0	1	3	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5	12	
Cancer, Malignant Disease	39	25	30	23	22	14	21	16	19	31	12	33	8	11	25	30	21	380	20	13	8	22	9	21	12	5	4	10	16	6	6	7	6	48	1	14	9	54	1	28	320	700		
Diabetes	5	2	0	5	1	1	2	4	4	3	0	1	1	1	2	4	2	38	2	1	1	3	0	2	1	0	0	0	1	2	1	1	1	3	0	1	0	10	1	4	35	73		
Cerebral Haemorrhage, etc.	21	3	13	10	11	4	9	13	7	19	9	11	2	6	19	11	10	178	9	5	2	8	3	3	3	4	2	2	4	0	0	0	2	4	13	1	6	2	37	1	5	116	294	
Heart Disease	68	34	45	24	43	17	18	31	29	61	33	47	15	34	33	46	28	606	52	17	11	20	8	27	15	6	5	19	15	17	11	8	16	44	5	19	16	94	5	43	473	1079		
Aneurysm	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	6	9		
Other circulatory diseases	17	8	14	8	3	1	7	9	9	15	5	12	3	10	1	7	7	136	15	3	3	10	1	11	4	2	2	1	6	1	0	1	1	23	2	5	4	30	2	12	139	275		
Bronchitis	9	8	11	6	19	0	6	7	8	4	10	4	3	9	12	7	127	9	1	3	4	2	6	4	0	1	0	0	2	1	5	1	13	0	11	3	11	0	9	86	213			
Pneumonia (all forms)	10	5	3	6	9	5	1	12	10	11	5	4	1	10	6	7	116	13	2	1	3	3	1	0	1	6	3	0	2	5	1	15	1	2	3	19	1	3	87	203				
Other Respiratory Diseases	3	1	5	0	3	0	1	1	3	3	0	0	0	0	1	3	2	29	3	1	0	2	0	2	0	0	0	1	2	0	0	1	0	7	0	2	1	3	0	0	25	54		
Septic Ulcer	3	2	2	1	3	0	2	1	0	1	0	0	2	0	0	1	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	2	0	2	24	42		
Diarrhoea, etc. (under 2 years)	1	0	2	0	1	0	1	0	0	1	0	0	0	0	1	0	0	1	18	5	0	1	2	1	1	0	0	1	2	2	1	0	1	0	2	0	0	1	2	0	2	9	17	
Appendicitis	1	1	2	1	1	1	0	0	4	2	1	2	2	2	4	0	1	25	1	0	1	2	0	0	1	1	0	0	0	0	0	0	1	0	1	0	0	0	2	0	8	17		
Cirrhosis of Liver	2	0	0	0	0	0	1	0	2	0	1	0	0	0	1	2	0	9	1	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3	15	40			
Other diseases of liver	1	1	2	1	0	0	1	0	1	2	0	0	2	0	0	1	1	13	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	2	0	0	0	2	0	0	8	17		
Other digestive diseases	10	3	5	4	3	3	4	3	1	7	2	6	2	1	3	6	4	67	2	1	0	4	0	7	3	0	0	0	1	4	0	3	2	14	0	5	0	10	0	4	60	127		
Acute and Chronic Nephritis	14	9	13	7	1	1	5	7	18	10	4	10	3	5	7	11	4	129	7	2	2	9	2	4	1	1	0	3	5	2	0	6	5	15	0	2	4	12	1	6	89	218		
Puerperal Sepsis	1	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	5		
Other puerperal causes	0	0	1	0	1	1	0	3	0	1	0	1	0	1	0	1	10	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9	19	
Congenital Debility, Premature Birth, Malformations, etc.	12	9	3	6	5	3	4	3	2	14	3	9	9	5	4	7	11	109	6	4	5	3	3	2	2	0	0	2	1	1	0	0	0	2	9	2	5	4	6	0	6	62	171	
Senility	41	6	18	21	10	4	13	2	23	7	3	16	4	3	12	15	38	236	11	1	15	17	3	16	0	1	3	0	3	2	3	7	2	15	1	4	2	18	0	9	131	367		
Suicide	2	1	2	1	0	1	2	1	2	0	2	0	1	1	3	1	2	22	2	0	0	2	0	3	0	0	0	0	3	1	1	2	2	7	0	1	1	3	1	3	32	54		
Other violence	11	7	9	5	15	1	5	2	3	8	1	3	1	4	1	12	8	96	9	0	1	4	1	9	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Other defined diseases	23	24	17	11	18	5	7	8	7	24	5	15	3	12	15	20	13	227	14	4	2	13	2	12	7	2	2	9	7	2	6	7	27	0	10	6	35	2	19	190	417			
Causes ill-defined or unknown	0	0	0	0	0	0	1	1	1	0	0	1	0	2	0	0	0	6	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4	10	
All causes	328	172	224	158	181	65	125	142	171	239	108	204	72	121	173	218	187	2888	211	65	61	145	42	140	63	29	26	63	75	46	31	6	62	319	18	109	61	401	18	194	2239	5127		





TABLE C.

Table showing, for each Rural District, the number of Births and Deaths, the number of Deaths of Infants, also the Birth Rate, Death Rate, and Rate of Infantile Mortality.

DISTRICT.	Area. Acres.	No. of Births.	No. of Deaths.	No. of Deaths Under 1 Year.	Population.	Birth Rate.	Death Rate.	Standardized Death Rate.	Rate of Infantile Mortality.
RURAL :—									
1. AXBRIDGE .....	93,062	380	328	15	25,310	15.01	12.96	9.64	39.5
2. BATH .....	27,360	199	172	11	14,310	13.91	12.02	9.84	55.3
3. BRIDGWATER .....	87,362	255	224	9	17,070	14.94	13.12	9.71	35.3
4. CHARD .....	55,236	169	158	8	11,850	14.26	13.33	10.44	47.3
5. CLUTTON .....	41,133	231	181	9	15,600	14.81	11.60	9.42	39.0
6. DULVERTON .....	78,980	65	65	4	4,701	13.83	13.83	10.90	61.5
7. FROME .....	51,558	163	125	5	10,490	15.54	11.92	9.44	30.7
8. KEYNSHAM .....	20,918	146	142	5	12,620	11.57	11.12	9.51	34.2
9. LANGPORT .....	59,407	163	171	7	12,600	12.94	13.49	9.96	43.0
10. LONG ASHTON .....	47,681	296	239	17	20,420	14.49	11.70	9.47	57.4
11. SHEPTON MALLET .....	46,561	138	108	8	9,154	15.08	11.80	9.07	58.0
12. TAUNTON .....	70,676	229	204	12	16,980	13.44	11.97	8.80	52.4
13. WELLINGTON .....	34,626	93	72	10	5,775	16.10	12.47	9.56	107.5
14. WELLS .....	58,119	152	121	10	9,940	15.29	12.17	9.26	65.8
15. WILLITON .....	97,364	163	173	6	12,100	13.47	14.21	10.40	36.8
16. WINCANTON .....	64,540	228	218	10	15,970	14.28	13.65	10.50	43.9
17. YEOVIL .....	53,495	245	187	14	16,510	14.84	11.33	8.78	57.1
Totals of Rural Population	988,078	3,315	2,888	160	231,400	14.32	12.48	9.63	48.3



TABLE D.

Table showing, for each Urban District, the number of Births and Deaths, the number of Deaths of Infants, also the Birth Rate, Death Rate, and Rate of Infantile Mortality.

DISTRICT.	Area.	No. of Births.	No. of Deaths.	No. of Deaths Under 1 Year.	Population.	Birth Rate.	Death Rate.	Standardized Death Rate.	Rate of Infantile Mortality.
URBAN :—	Acres.								
1. BRIDGWATER .....	1,084	305	211	12	17,420	17.51	12.11	10.17	39.3
2. BURNHAM .....	1,502	56	65	4	5,303	10.56	12.26	9.35	71.4
3. CHARD .....	442	44	61	6	4,095	10.74	14.90	11.79	136.4
4. CLEVEDON .....	3,017	64	145	3	6,849	9.34	21.17	14.14	46.9
5. CREWKERNE .....	1,243	37	42	3	3,494	10.59	12.02	9.54	81.1
6. FROME .....	1,194	118	140	4	10,680	11.05	13.11	10.24	33.9
7. GLASTONBURY .....	5,019	69	63	3	4,560	15.13	11.62	9.82	43.5
8. HIGHBRIDGE .....	744	37	29	1	2,573	14.38	11.27	9.70	27.0
9. ILMINSTER .....	531	33	26	1	2,322	14.21	10.94	8.76	30.3
10. MIDSOMER NORTON .....	3,970	95	63	4	7,777	12.22	8.10	8.03	42.1
11. MINEHEAD .....	2,816	59	75	1	6,223	9.48	12.05	9.87	17.0
12. PORTISHEAD .....	911	45	46	1	3,948	11.40	11.65	9.52	22.2
13. RADSTOCK .....	1,014	59	31	3	3,616	16.32	8.57	7.52	50.8
14. SHEPTON MALLET	3,548	64	60	3	4,228	15.14	14.20	11.67	46.9
15. STREET .....	2,742	61	62	3	4,442	13.73	13.96	12.16	49.2
16. TAUNTON .....	2,434	355	319	19	26,210	13.58	12.20	10.75	53.5
17. WATCHET .....	493	31	18	3	2,009	15.43	8.96	6.46	96.8
18. WELLINGTON .....	5,295	81	109	6	7,327	11.06	12.15	9.66	74.1
19. WELLS .....	719	59	61	6	4,848	12.17	12.58	8.88	101.7
20. WESTON-S-MARE	2,412	291	401	13	28,200	10.32	14.22	11.56	44.7
21. WIVELISCOMBE.....	201	15	18	0	1,276	11.76	14.11	11.81	0.0
22. YEOVIL .....	2,257	272	194	15	19,300	14.09	10.05	9.49	55.1
Totals of Urban Population	43,588	2,250	2,239	114	176,700	12.74	12.68	10.49	50.7
Administrative County	1,031,666	5,565	5,127	274	408,100	13.64	12.56	9.99	49.2
England and Wales, 1932						15.3	12.0	12.0	65