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# REPORT

OF THE

## MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1927.

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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.**

GENTLEMEN,

I beg to submit my nineteenth 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 are satisfactory although not quite so good as for the previous year. The presence of a good deal of influenza increased the deaths amongst older persons. The deaths in children under one year are down to as low as 45.9 per 1000 births, equal to the lowest rate yet recorded.

Each year fresh activities have to be recorded. During the year under review the Maternity Homes Act 1926 came into operation, a Scheme under the Housing (Rural Workers) Act 1926, was made and adopted, while the rickets scheme developed extensively. Treatment by artificial light was adopted at three centres. The report contains an account of these new activities as well as of the work which has been in progress for years.

The most striking development in the county of what may be called environmental factors is the very considerable activity during the last few years in regard to the provision of new houses. It is a public health feature of primary importance, so I have devoted a good deal of space to an account of what has been accomplished.

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 1928.

W. G. SAVAGE.



## SECTION I.

**GENERAL AND VITAL STATISTICS.**

Population (1927) 401,500.

Births :—Total 5,769 ; Legitimate, 5,531 ; Illegitimate, 238.

Deaths :—Total 5,001 ; Urban, 2,110 ; Rural, 2,891.

Deaths of children under 1 year of age, 265.

Rateable Value, £3,002,056.

Assessable Value, £2,118,550.

Sum represented by a penny rate :—£8,827 5s. 10d.

Birth rate, 14.37.

Death rate, 12.46.

Rate of infantile mortality, 45.94.

Percentage of births which were illegitimate, 4.1.

The birth-rate continues to decline and is lower than for any previous year, except the war years, 1917—1919. The decline affects both the Rural and the Urban Districts.

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 census figures. So corrected the following figures are obtained.

	Net Death-rate.	Standardizing Factor.	Standardized Death-rate.
Rural Districts	12.41	0.772	9.58
Urban Districts	12.52	0.827	10.35
Administrative County	12.46	0.795	9.91
England and Wales	12.3	—	12.3

The death rate is above the rate for the last few years but below the average for the past ten years. The increase in the number of deaths was mainly due to Influenza, the deaths put down to this condition being 375, compared with 87 in the previous year. These mainly affected older persons, 97 being aged 45—65 and 212 in persons 65 and over.

The causes of death are set out in Tables A. and B. at the end of the Report. Table B. shows that heart diseases are responsible for the largest number of deaths from one single group of causes (846 deaths), cancer and other forms of malignant disease the next largest (600 deaths), bronchitis and pneumonia caused 529 deaths, while tuberculosis caused only 287 deaths. Cancer still continues to increase. It chiefly affects those beyond middle life. Only 38 of the deaths were in persons under 45 years, 247 were between 45 and 65 and 315 were over 65 years when they died. At present all that can be done along Public Health lines is to disseminate sound advice as to the need for early recognition and treatment of cancer. In this way a good many lives can be saved.

In Somerset there are many old persons and the importance of correcting for this is shown very markedly in the statistics. The standardizing factor mentioned above corrects this and makes the death rate comparable with England and Wales. It will be noted that the uncorrected rate this year is very slightly higher than for England and Wales but when the large number of old persons is taken into account it is very greatly below.

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 still taking place and the figures are most satisfactory.

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



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.
1917	199,385	3,321	14.94	236	71.06	2,892	14.50
1918	198,808	3,270	14.68	190	58.10	3,041	15.30
1919	206,946	3,480	16.14	224	64.37	2,963	14.32
1920	215,192	4,943	22.97	271	54.82	2,669	12.40
1921	225,074	4,451	19.78	252	56.62	2,594	11.53
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
Averages for years 1917—1926	219,266	3,913	17.8	213	54.4	2,812	12.8
1927	233,000	3,507	15.05	165	47.04	2,891	12.41

Urban Districts.

1917	141,420	2,058	13.05	151	73.4	1,949	13.78
1918	143,374	2,181	13.58	134	61.44	2,294	16.00
1919	151,273	2,212	14.04	152	68.72	2,082	13.76
1920	157,301	3,320	21.07	178	53.61	1,960	12.46
1921	162,025	3,055	18.86	168	54.99	1,906	11.76
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
Averages for years 1917—1926	158,539	2,567	16.2	146	56.8	2,013	12.7
1927	168,500	2,262	13.42	100	44.21	2,110	12.52

TABLE III.

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.	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 .....	93,036	368	311	15	24,260	15.17	12.82	9.30	47.6
2. BATH .....	27,360	177	172	7	14,580	12.14	11.80	9.66	39.5
3. BRIDGWATER .....	87,516	293	261	17	17,370	16.87	15.03	11.12	58.0
4. CHARD .....	55,236	192	156	9	12,380	15.51	12.60	9.87	46.9
5. CLUTTON .....	41,133	276	199	13	16,080	17.16	12.38	10.05	47.1
6. DULVERTON .....	78,980	67	45	5	4,716	14.21	9.54	7.13	74.6
7. FROME .....	51,558	179	139	9	10,900	16.42	12.75	10.10	50.3
8. KEYNSHAM .....	21,405	161	116	5	11,650	13.82	9.96	8.52	31.1
9. LANGPORT .....	59,407	184	151	6	12,910	14.25	11.70	8.63	32.6
10. LONG ASHTON .....	47,900	275	210	9	20,330	13.53	10.33	8.36	32.7
11. SHEPTON MALLET .....	46,561	154	125	12	9,877	15.59	12.66	9.75	77.9
12. TAUNTON .....	71,095	270	202	11	16,630	16.24	12.15	8.93	40.7
13. WELLINGTON .....	34,626	101	79	11	5,727	17.64	13.79	10.58	10.9
14. WELLS .....	58,119	146	131	10	10,280	14.20	12.74	9.90	68.5
15. WILLITON .....	97,710	171	155	3	11,910	14.36	13.01	9.52	17.5
16. WINCANTON .....	64,540	244	193	6	16,180	15.08	11.93	9.19	24.6
17. YEOVIL .....	54,898	249	246	17	17,220	14.46	14.29	11.07	68.3
Totals of Rural Population	991,080	3,507	2,891	165	233,000	15.05	12.41	9.58	47.0



TABLE IV.

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 :—									
1. BRIDGWATER .....	930	252	216	14	16,030	15.72	13.47	11.31	55.6
2. BURNHAM .....	1,481	54	66	1	5,397	10.01	12.23	9.33	18.5
3. CHARD .....	442	55	43	1	4,124	13.34	10.43	8.25	18.2
4. CLEVEDON .....	3,017	80	101	0	6,598	12.12	15.31	10.23	0.0
5. CREWKERNE .....	1,243	50	49	5	3,577	13.98	13.70	10.88	100.0
6. FROME .....	1,194	128	137	3	10,840	11.81	12.64	9.87	23.4
7. GLASTONBURY .....	5,019	63	58	2	4,411	14.28	13.15	11.11	31.7
8. HIGHBRIDGE .....	744	36	30	3	2,648	13.60	11.33	9.76	83.3
9. ILMINSTER .....	531	22	23	0	2,209	9.96	10.41	8.34	0.0
10. MIDSOMER NORTON .....	3,970	122	70	5	8,057	15.14	8.69	8.61	41.0
11. MINEHEAD .....	2,470	62	71	2	5,991	10.35	11.85	9.71	32.3
12. PORTISHEAD .....	1,029	46	46	3	4,062	11.32	11.32	9.25	65.2
13. RADSTOCK .....	1,014	55	35	3	3,938	13.97	8.89	7.81	54.5
14. SHEPTON MALLET .....	3,548	62	57	4	4,214	14.71	13.53	11.12	64.5
15. STREET .....	2,742	57	57	3	4,469	12.75	12.75	11.11	52.6
16. TAUNTON .....	2,015	351	339	12	24,560	14.29	13.80	12.16	34.2
17. WATCHET .....	493	26	27	0	1,839	14.14	14.68	10.58	0.0
18. WELLINGTON .....	5,295	89	93	4	7,003	12.71	13.28	10.56	44.9
19. WELLS .....	719	69	72	6	4,444	15.53	16.20	11.44	87.0
20. WESTON-S-MARE .....	2,412	318	320	17	26,350	12.07	12.14	9.87	53.5
21. WIVELISCOMBE .....	201	22	20	0	1,239	17.76	16.14	13.51	0.0
22. YEOVIL .....	854	243	180	12	16,500	14.73	10.91	10.30	49.4
Totals of Urban Population	41,363	2,262	2,110	100	168,500	13.42	12.52	10.35	44.2
Administrative County	1,032,443	5,769	5,001	265	401,500	14.37	12.46	9.91	45.94
England and Wales, 1927						16.7	12.3	12.3	69



## INFECTIOUS DISEASES.

TABLE V.

	Scarlet Fever.	Diphtheria.	*Enteric Fever.	Puerperal Fever.	Ophthalmia Neonatorum.	Cerebro-spinal Meningitis.	Dysentery.	Malaria.	Pneumonia.	Acute Poliomyelitis.	Encephalitis Lethargica.
<b>URBAN.</b>											
Bridgwater	15	1	0	0	0	1	0	0	27	0	1
Burnham	2	0	0	0	0	1	0	0	0	1	1
Chard	2	13	0	0	0	0	0	0	2	0	0
Clevedon	18	1	1	0	0	0	1	0	5	0	0
Crewkerne	8	1	0	0	0	0	0	0	1	0	0
Frome	15	7	0	0	0	0	0	0	4	0	1
Glastonbury	1	1	1	0	0	0	6	0	4	0	0
Highbridge	0	0	0	0	1	1	0	0	1	0	1
Ilminster	6	0	0	0	0	0	0	0	5	0	0
Midsomer Norton	53	8	1	0	0	0	1	0	25	3	2
Minehead	12	0	2	0	0	0	0	0	0	0	0
Portishead	0	0	0	0	0	0	0	0	3	0	0
Radstock	12	1	0	0	0	0	0	0	2	0	0
Shepton Mallet	1	2	0	0	0	0	0	0	21	0	2
Street	3	0	0	0	0	0	2	0	10	0	1
Taunton	22	3	0	0	3	0	1	0	46	0	1
Watchet	3	2	0	0	0	0	0	0	0	0	0
Wellington	15	1	0	0	0	0	0	0	9	0	0
Wells	6	2	2	0	0	0	0	0	18	0	0
Weston-super-Mare	24	69	0	1	8	0	0	0	21	0	0
Wiveliscombe	0	0	1	0	0	0	0	0	5	0	0
Yeovil	6	1	0	2	1	0	0	0	18	1	2
<b>RURAL.</b>											
Axbridge	27	24	2	2	3	0	0	0	47	1	0
Bath	52	26	3	0	1	0	0	0	2	0	1
Bridgwater	33	2	0	1	0	0	0	1	14	0	1
Chard	23	3	1	0	0	0	0	0	11	0	0
Clutton	71	6	0	3	1	0	0	0	43	0	0
Dulverton	0	0	0	0	0	0	0	0	2	0	1
Frome	14	4	0	0	4	0	0	1	24	0	1
Keynsham	37	2	3	0	0	0	0	0	18	0	0
Langport	30	6	0	1	1	0	0	0	21	0	0
Long Ashton	28	11	2	0	1	0	1	0	32	0	0
Shepton Mallet	5	4	3	0	0	0	0	0	16	2	0
Taunton	11	3	0	0	0	0	0	0	29	0	1
Wellington	3	0	0	0	0	1	0	0	7	0	0
Wells	23	1	13	0	0	1	1	0	31	0	1
Williton	22	3	0	1	0	0	0	0	0	0	2
Wincanton	22	7	0	0	3	0	0	0	27	0	0
Yeovil	26	22	0	1	4	0	0	0	18	0	0
Urban Districts	224	113	8	3	13	3	11	0	227	5	12
Rural Districts	427	124	27	9	18	2	2	2	342	3	8
Administrative County	651	237	35	12	31	5	13	2	569	8	20

\* Including Paratyphoid.



**Small-pox.** A suspected case of Small-pox was notified in November from Taunton Rural and removed to the Mid Somerset Small Pox Hospital as a suspected case. Fortunately, later developments showed that the disease was not Small-pox. The Hospital has been maintained ready for use so that cases can be admitted within a few hours notice. Apart from the Caretakers no staff is maintained but arrangements are made to staff it at very short notice. The arrangements worked very smoothly as regards the above case and the Hospital was opened and the case admitted within 4 hours of my agreeing to accept it.

**Scarlet Fever.** This disease was fairly prevalent and 651 cases were notified, being 118 more cases than in the previous year. There were 6 deaths, giving a case mortality of 0.92 per cent. All the deaths were in the rural districts and there were no deaths amongst the 224 urban cases.

**Diphtheria.** 237 cases were notified with 13 deaths, a case mortality of 5.5 per cent. The distribution of the cases is shown in Table V. Most cases were notified from Weston-super-Mare where there was a considerable outbreak which continued on into 1928.

**Enteric and Paratyphoid Fevers.** 35 cases were notified, with 8 deaths. This is considerably more than the average for the County. Most of the cases were scattered through the County, but 13 cases were notified from Wells Rural, with 7 deaths. Twelve of these occurred in the Wells Asylum. Seven were in one group and originated in a carrier which was admitted from Yorkshire. As soon as she was allowed to work at food preparing cases arose amongst the inmates. Detailed bacteriological examinations in the County Laboratory disclosed that she was a chronic carrier of typhoid bacilli and was the source of infection. She was promptly removed from handling or taking part in the preparation of food.

**Encephalitis Lethargica.** Table V. shows that 20 cases were notified, and that these were distributed through the County and with no epidemic. This number is a welcome reduction over the figures for the previous years. There were, however, 13 deaths, a case mortality of 65 per cent.

Only 5 cases of Cerebro-spinal Meningitis and 8 cases of acute Poliomyelitis were notified.

**Measles.** I do not know the number of cases as the disease is not generally notifiable, but there were only 4 deaths, a very low total. All were under 5 years of age and 3 were between 1 and 2 years.

**Whooping Cough.** There were 10 deaths during the year, 5 being under twelve months old, 3 between 1 and 2 years and 2 between 2 and five years.

**Food Poisoning.** An extensive outbreak occurred in August, mostly in the Keynsham and Bath rural areas and also in adjacent parts of Gloucestershire. The exact number of cases was not ascertained but there were at least 300 persons attacked. There was one fatal case, a child 6½ years old. The vehicle of infection was ice-cream, all obtained from one source. Bacteriological examinations in the County Laboratory of the scrapings of the container out of which the ice-cream had been sold, showed the presence of *B. aertrycke*, an organism which is the commonest cause of food poisoning outbreaks. The same organism was obtained from the excreta of sufferers and by Dr. Waterhouse at Bath, from the stomach of the fatal case. There was no doubt that the illness was due to infection of the ice-cream with this virulent bacillus. This was further confirmed by the presence of specific agglutinins in the blood of the sufferers.

I was away on holiday at the time of the outbreak and was unable to take any part in its elucidation, but detailed investigations and inquiries were made by Dr. Aubrey, who was acting as Medical Officer of Keynsham Rural at the time, and who made a detailed report on the outbreak. It was not found possible to trace the path by which the ice-cream mixture became infected with this bacillus. Many bacteriological examinations were carried out at the Ministry of Health



Laboratory and in the County Laboratory. It was not possible to incriminate any of the ingredients used to make the ice-cream. A very considerable proportion of food poisoning outbreaks is spread by foods which are made up of ingredients which are good nutrient media for bacteria which are then heated and allowed to cool slowly. During the cooling this nutrient material becomes infected, in one of a variety of ways, with food poisoning bacilli. The slowly cooling food in the hot weather supplies abundant opportunities for multiplication and, since the food is not further heated before it is eaten, it contains a very large number of food poisoning bacilli and their very toxic products. This seems to be an outbreak of this type and it is probable that the ice-cream mixture was infected during cooling and storage. It was made in the vendor's back kitchen and stored there until next day. Where the infecting bacilli originated or how they were transferred to the food are facts which could not be ascertained.

### HOSPITAL ACCOMMODATION.

1. **Provided by the County Council.** A small emergency hospital of 8 beds at Cossington is provided for Small Pox cases. A site has been obtained near Chew Magna but this has no buildings upon it and has not been developed, apart from the provision of a water supply.

The Institutions for Tuberculosis are discussed under that section. No Institutional beds are provided for maternity cases.

2. **Subsidized by the Council.** At Bath, 24 beds are retained for Orthopaedic cases from the Administrative County at the Bath, Somerset and Wilts Children's Orthopaedic Hospital. At Bridgwater, 6 beds are retained for infants (see page 31).

Grants which, in most cases, are one-third of the maintenance charges, are paid to a number of Isolation Hospitals in the County provided they are maintained and managed to the satisfaction of the County Council. These hospitals are :—

Minehead, Watchet, and Williton Hospital.  
Shepton Mallet Joint Isolation Hospital.  
Taunton Joint Isolation Hospital.  
Wincanton Isolation Hospital.

3. **Isolation Hospitals provided by Local Sanitary Authorities.** *Urban areas.* Isolation Hospital accommodation is provided for Bridgwater, Clevedon, Frome, Glastonbury, Minehead, Shepton Mallet, Street, Taunton, Watchet, Wells, Weston-super-Mare and Yeovil. There is no provision for Burnham, Chard, Crewkerne, Highbridge, Ilminster, Midsomer Norton, Portishead, Radstock, Wellington and Wiveliscombe.

*Rural areas.* Some Isolation Hospital accommodation is provided for Bath, Frome, Keynsham, Langport, Long Ashton, Shepton Mallet, Taunton, Williton and Wincanton. There is no provision for Axbridge, Bridgwater, Chard, Clutton, Dulverton, Wellington, Wells and Yeovil.

No additional Isolation Hospitals were completed during the year. The erection of the Isolation Hospital at Cross, for the area of Axbridge Rural, Burnham and Highbridge, was started during the year and it is hoped to complete the Hospital by the middle of 1928. The Hospital at Paulton, for the areas of Clutton, Midsomer Norton and Radstock, still exists only on paper and the delays in its erection seem interminable. Questions of drainage from the Hospital, together with drainage from houses which the Clutton Rural District Council have erected near or on the site which was selected for treating the Hospital Sewage were the chief causes of delay during the year. The negotiations between Wells Rural District Council and the Shepton Mallet Isolation Hospital Committee for the inclusion of cases from Wells Rural were not completed during the year but it is anticipated that satisfactory arrangements for these cases will soon be reached.

Negotiations for the admission of cases from Wellington Urban into the Taunton Joint Isolation Hospital were put in hand during the year but only completed in 1928.



TABLE VI.

## Cases removed to Isolation Hospitals.

DISTRICT.	Cases removed to Hospital.				Percentage of Cases removed to Hospital.		
	Scarlet Fever.	Diphtheria.	Enteric Fever.	Other Diseases.	Scarlet Fever.	Diphtheria.	Enteric Fever.
URBAN :—							
Bridgwater .. ..	15	0	0	—	100	0	—
Burnham .. ..	0	0	0	—	0	—	—
Chard .. ..	0	1	0	—	0	8	—
Clevedon .. ..	17	1	0	—	94	100	0
Crewkerne .. ..	0	0	0	—	0	0	—
Frome .. ..	15	5	0	—	100	71	—
Glastonbury .. ..	1	0	0	—	100	0	0
Highbridge .. ..	0	0	0	—	—	—	—
Ilminster .. ..	1	0	0	—	17	—	—
Midsomer Norton .. ..	8	0	0	—	15	0	0
Minehead .. ..	11	0	2	—	92	—	100
Portishead .. ..	0	0	0	—	—	—	—
Radstock .. ..	0	0	0	—	0	0	—
Shepton Mallet .. ..	1	1	0	—	100	50	—
Street .. ..	3	0	0	—	100	—	—
Taunton .. ..	20	2	0	—	91	67	—
Watchet .. ..	0	2	0	—	0	100	—
Wellington .. ..	14	1	0	—	93	100	—
Wells .. ..	6	0	2	—	100	0	100
Weston-super-Mare .. ..	16	50	0	—	67	72	—
Wiveliscombe .. ..	0	0	1	—	—	—	100
Yeovil .. ..	3	0	0	—	50	0	—
Total Urban .. ..	131	63	5	—	58	56	63
RURAL :—							
Axbridge .. ..	0	0	0	—	0	0	0
Bath .. ..	31	23	2	—	60	88	67
Bridgwater .. ..	3	0	0	—	9	0	—
Chard .. ..	0	0	0	—	0	0	0
Clutton .. ..	6	0	0	—	8	0	—
Dulverton .. ..	0	0	0	—	—	—	—
Frome .. ..	7	0	0	—	50	0	—
Keynsham .. ..	27	2	1	—	73	100	33
Langport .. ..	11	0	0	—	37	0	—
Long Ashton .. ..	8	4	1	—	29	36	50
Shepton Mallet .. ..	4	3	3	—	80	75	100
Taunton .. ..	11	3	0	—	100	100	—
Wellington .. ..	1	0	0	—	33	—	—
Wells .. ..	7	0	0	—	30	0	0
Williton .. ..	16	2	0	—	73	67	—
Wincanton .. ..	19	7	0	—	86	100	—
Yeovil .. ..	0	0	0	—	0	0	—
Total Rural .. ..	151	44	7	—	35	35	26
County Total .. ..	282	107	12	—	43	45	34



### VENEREAL DISEASES.

The attendances of Somerset cases at the different clinics for the year 1927 were as follows :—

Clinic.	New cases 1927	Attendances 1927	NEW CASES.				ATTENDANCES.		
			1924.	1925.	1926	Increase or decrease during 1927.	1925.	1926.	Increase or decrease during 1927.
Bath .....	11	223	26	19	19	— 8	224	259	— 36
Bristol .....	53	607	16	37	38	+15	263	335	+272
Taunton .....	81	1,582	69	74	69	+12	1,037	1,282	+300
Yeovil .....	65	615	35	25	42	+23	362	534	+ 81
Bridgwater .....	37	572	40	50	38	— 1	517	547	+ 25
Chard .....	0	0	2	0	0	0	0	0	0
Frome .....	19	286	6	7	8	+11	91	83	+203
Glastonbury .....	3	36	3	2	4	— 1	3	43	— 7
Minehead .....	11	133	16	10	8	+ 3	146	163	— 30
Radstock .....	2	13	6	3	5	— 3	53	32	— 19
Weston-super-Mare .....	56	653	53	46	50	+ 6	743	743	— 90
All Clinics .....	338	4,720	272	273	281	+57	3,439	4,021	+699

The figures show an increase in the number of new cases and again a considerable increase in the number of attendances. The increases are chiefly at Taunton and Yeovil. No less than 81 per cent. of the new cases and 82 per cent. of the total attendances were at County Council clinics. The Chard clinic is not now used.

With this system of multiple clinics it is possible for every case to obtain treatment at a reasonable distance from his or her home, and the thorough following up of cases is in this way materially facilitated. Patients are now attending until cure is effected very much better than in the earlier years. In general the Medical profession is co-operating well with the scheme and many cases are sent to the clinics through medical men. No beds are now available except in connection with the above-mentioned Hospitals. With these arrangements are made whereby cases can be sent in as in-patients should this be necessary. From time to time the facilities offered are widely advertised through the Local Authorities, posters in sanitary conveniences, etc., while periodically circulars are sent to medical men. 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 19 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	341	186	527
Gonococcus	619	70	689
Spirochetes	5	0	5
Fixation Tests	—	—	50
	965	256	1,271



## TUBERCULOSIS.

No fresh developments of the Scheme for dealing with pulmonary tuberculosis took place during 1927, except that the artificial light treatment, started at Bridgwater, was extended to two other centres (Weston-super-Mare and Yeovil) early in the year.

TABLE VII.

Year.	Phthisis Death rates.			Other Tuberculous Diseases			Tuberculosis Death-rate.	Deaths in a population of 390,000.	
	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	340	418
1902	0.86	0.89	0.877	0.20	0.19	0.201	1.078	342	420
1903	0.94	0.76	0.879	0.19	0.34	0.251	1.130	343	441
1904	0.99	0.97	0.989	0.20	0.34	0.255	1.244	386	485
1905	0.90	0.91	0.905	0.14	0.18	0.162	1.067	353	416
1906	0.90	0.86	0.890	0.13	0.37	0.221	1.111	347	433
1907	0.83	0.85	0.842	0.24	0.26	0.253	1.095	328	427
1908	0.91	0.93	0.922	0.24	0.31	0.274	1.196	360	466
1909	0.82	0.85	0.833	0.24	0.27	0.255	1.088	325	424
1910	0.98	0.78	0.912	0.16	0.24	0.197	1.109	356	433
1911	0.83	0.76	0.804	0.15	0.39	0.240	1.044	314	407
1912	0.69	0.90	0.778	0.17	0.20	0.191	0.970	303	378
1913	0.74	0.67	0.721	0.15	0.30	0.239	0.960	281	374
1914	0.86	0.79	0.833	0.21	0.26	0.232	1.065	325	415
1915	0.84	1.13	0.960	0.18	0.23	0.201	1.160	374	452
1916	0.75	0.97	0.838	0.16	0.25	0.194	1.032	327	402
1917	0.90	1.05	0.962	0.18	0.21	0.191	1.153	375	450
1918	1.09	1.30	1.180	0.21	0.24	0.225	1.403	460	547
1919	0.85	0.90	0.871	0.21	0.22	0.212	1.083	341	422
1920	0.65	0.93	0.765	0.14	0.27	0.196	0.961	298	375
1921	0.63	0.76	0.685	0.16	0.30	0.220	0.904	267	353
1922	0.75	0.78	0.761	0.18	0.18	0.180	0.941	297	367
1923	0.65	0.76	0.696	0.19	0.22	0.206	0.902	271	352
1924	0.60	0.74	0.656	0.15	0.13	0.140	0.797	256	311
1925	0.61	0.73	0.659	0.12	0.14	0.126	0.784	257	306
1926	0.53	0.54	0.533	0.13	0.14	0.138	0.671	208	262
1927	0.55	0.64	0.586	0.13	0.13	0.130	0.716	228	279

While not so low as the extremely satisfactory rate for last year, it is again very low. A quite uniform decline is not to be expected and apart from last year, the rate is the lowest on record.

The actual results achieved are most clearly seen when the figures are calculated on a standard population of 390,000 which is about the present population of the Administrative County. These figures are set out and show that as many as 141 fewer persons died from tuberculosis in the County in 1927 than would have been the case 25 years ago with the same population. The main part of the decline is as regards tuberculosis of the lungs but a diminution in non-pulmonary tuberculosis is now noticeable.



TABLE VIII.

**New cases of tuberculosis and of deaths from the disease in the County during 1927.**

Age Periods.	New cases.				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M	F.	M.	F.	M.	F.	M.	F.
0—1	1	1	3	0	0	0	3	1
1—5	3	0	9	9	0	0	6	3
5—10	22	20	20	15	4	3	4	0
10—15	18	24	16	6				
15—20	25	45	6	6	20	29	5	5
20—25	33	49	4	8				
25—35	49	77	6	15	54	49	8	6
35—45	36	45	3	4				
45—55	32	29	6	7	38	26	5	6
55—65	12	14	3	2				
65 and upwards	8	8	0	1	10	2	0	0
Totals	239	312	76	73	126	109	31	21

The following figures show the deaths, notifications and number of cases under supervision since 1913 :—

TABLE IX.

Year.	Deaths.	*Notifications.	Living Cases.
1913	377	958	429
1914	422	984	832
1915	428	933	1,238
1916	467	872	1,538
1917	393	1,036	2,053
1918	480	949	2,417
1919	388	922	2,864
1920	358	860	3,286
1921	350	882	3,754
1922	366	732	4,120
1923	354	707	4,473
1924	317	701	4,857
1925	312	769	5,314
1926	268	729	5,775
1927	287	703	6,191

\*These are primary cases only and do not include institutional cases.



**TABLE X.**  
**Tuberculosis Notifications and Deaths.**

URBAN DISTRICTS.	Number of cases notified.				Number of primary notifications per 1,000 population.	Number of Deaths during the year from Pulmonary Tuberculosis	Number of Deaths during the year from other varieties of Tuberculosis.	RURAL DISTRICTS.	Number of cases notified.				Number of primary notifications per 1,000 population.	Number of Deaths during the year from Pulmonary Tuberculosis.	Number of Deaths during the year from other varieties of Tuberculosis.
	Pulm.		Non-Pulm.						Pulm.		Non-Pulm.				
	Inst.	Non-Inst.	Inst.	Non-Inst.					Inst.	Non-Inst.	Inst.	Non-Inst.			
Bridgwater .....	12	33	1	6	2.43	15	4	Axbridge .....	13	37	4	15	2.14	15	3
Burnham .....	0	13	0	1	2.59	4	4	Bath .....	10	9	1	5	0.96	6	3
Chard .....	0	1	0	1	0.48	0	0	Bridgwater .....	13	16	0	4	1.15	9	2
Clevedon .....	0	3	0	4	1.06	4	0	Chard .....	6	17	0	2	1.53	4	2
Crewkerne .....	1	9	0	2	3.08	1	0	Clutton .....	0	6	0	7	0.81	5	1
Frome .....	0	12	0	4	1.48	5	1	Dulverton .....	0	13	0	0	2.76	0	1
Glastonbury .....	0	4	0	2	1.36	2	1	Frome .....	2	8	0	2	0.92	5	2
Highbridge .....	0	4	0	0	1.51	2	0	Keynsham .....	1	14	1	8	1.89	7	1
Ilminster .....	1	2	0	2	1.81	1	0	Langport .....	7	17	0	6	1.78	7	2
Midsomer Norton .....	3	4	0	4	0.99	2	1	Long Ashton .....	19	40	0	6	2.26	16	4
Minehead .....	7	20	0	1	3.51	7	1	Shepton Mallet .....	0	5	0	5	1.01	4	0
Portishead .....	0	5	0	4	2.22	4	0	Taunton .....	12	18	0	4	1.32	9	0
Radstock .....	0	1	0	4	1.27	2	0	Wellington .....	0	6	0	0	1.48	6	0
Shepton Mallet .....	0	3	0	3	1.42	0	1	Wells .....	0	6	0	8	1.36	2	2
Street .....	0	2	0	2	0.90	2	0	Williton .....	4	33	0	2	2.94	9	1
Taunton .....	21	48	0	5	2.18	17	4	Wincanton .....	7	13	1	13	1.61	9	4
Watchet .....	0	7	0	0	3.81	3	0	Yeovil .....	9	25	0	4	1.68	14	2
Wellington .....	15	26	0	2	4.00	6	2								
Wells .....	0	7	0	4	2.48	2	0								
Weston-s-Mare .....	12	41	1	4	1.71	20	2								
Wiveliscombe .....	0	2	0	0	1.61	1	0								
Yeovil .....	9	24	0	3	1.64	8	1								
Totals .....	81	271	2	58	1.95	108	22	Totals .....	103	283	7	91	1.61	127	30

**Summary of Treatment given during 1927.**

Sanatorium .....	174
Sanatorium with Dispensary .....	61
"    Domiciliary (without shelter) .....	19
"    "    (with shelter) .....	5
"    Dispensary (with shelter) .....	3
"    Dispensary and Domiciliary .....	1
Dispensary and Domiciliary .....	3
Dispensary (6 with shelter) .....	171
Shelter provided at home .....	14

Thirteen of these cases were under treatment but were unnotified as the cases were doubtful. In addition, milk, for a period of two months, was provided for 77 cases ; nursing for 1 case ; Dental treatment for 11 cases ; X-ray examinations for 6 cases.

Unused buildings at Quantock Sanatorium were again utilized during 1927 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, were each given 4 weeks 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 most 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 tables and remarks dealing with the treatment given under the County Council scheme and the results obtained.



### Tuberculosis Officer's Clinical Report for 1927.

The outstanding feature of the Tuberculosis work this year has been the gratifying success of the scheme in reducing the death rate from all forms of Tuberculosis in the County to such a degree that the death rate is now the lowest in all the 23 areas in England with a population of 300,000 or over, whether Urban or County.

This very welcome distinction, which is shown by the latest return from the Ministry of Health, emphasises the fact that while the whole of Great Britain has shared in a reduced death rate, yet Somerset has progressed faster than other counties, and it is justifiable to infer that both clinically as well as in administration the campaign is a sound one.

That this position has not been attained without persistent hard work on the part of the County Staff, the accompanying tables will show.

The total attendances at the County Tuberculosis Dispensaries during 1927 were 11,495, as against 11, 573 in 1926.

The new cases seen numbered 1,682, and they were classified after careful and often repeated examination as follows :—

Pulmonary Tuberculosis	T.B. Negative	.....	.....	398
	T.B. + Stage 1	.....	.....	12
	T.B. + „ 2	.....	.....	76
	T.B. + „ 3	.....	.....	48
				<hr/>
				534
Non-Pulmonary Tuberculosis	.....	.....	.....	83
Not Tuberculous	.....	.....	.....	947
Doubtfully Tuberculous	.....	.....	.....	118
				<hr/>
				1,682
				<hr/>

The medical men in the County are increasingly using the skilled services of the Tuberculosis Officers for diagnosis and in nearly every case it has been possible to make an accurate and helpful diagnosis which future events have proved to be justified. It is necessary to lay the greatest stress upon this—the most important part of the work—because it is to this accurate and early diagnosis that the large proportion of “cases cured” is due. It also ensures that expensive treatment shall not be given to unsuitable cases.

Recent work on Tuberculosis has improved the technique of early diagnosis and it is desirable that these aids should be made available to all Tuberculosis Officers so far as is possible, even though in such a scattered population as Somerset the Tuberculosis Officer will always have to place first and ultimate reliance upon his own personal skill and experience.

The Sanatorium figures show the average length of patients' stay in these institutions, and it will be seen that this is considerably longer than used to be given. The immediate results of this liberality are good but it will be some years before the ultimate results can be rightly estimated.

A new table shows the present condition of all the cases discharged from Quantock Sanatorium from its opening until the end of 1927. Meanwhile, there is everything to encourage the workers in the great fight against Tuberculosis.

L. J. SHORT.



TABLE XI.

Condition of all cases discharged from Quantock Sanatorium, from the opening until 31st December, 1927.

	<i>Cases.</i>	<i>Percentage.</i>
Arrested and Working	69	22.5
Arrested but <i>not</i> Working	16	5.2
Not Arrested but Working	109	35.5
Not Arrested and <i>not</i> Working	63	20.5
Lost sight of	17	5.5
Dead	33	10.8
	<hr/> 307 <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 XII.

Complete results as regards working capacity.

Percentages.

All years, (1912-1927).		Cured.	Working.	Not Working.	Dead.	Lost sight of or Removed.	Total cases.
Men	Cases	683	453	296	940	255	2,627
	Percentage	26	17	11	36	10	
Women	Cases	621	578	314	794	256	2,563
	Percentage	24	23	12	31	10	
Children	Cases	1,119	622	212	127	176	2,256
	Percentage	50	27	9	6	8	
Un- Classified	Cases	—	—	—	124	229	353
	Percentage	—	—	—	35	65	
Total	Cases	2,423	1,653	822	1,985	916	7,799
	Percentage	31	21	11	25	12	

TABLE XIII.

## Admissions to Sanatorium during 1927.

Sanatorium.	Men.		Women.	Children.	Total.
	Civilian.	Ex-Service.			
Quantock .....	49	1	59	6	115
Taunton .....	17	2	13	—	32
Wincanton .....	16	1	23	1	41
Compton Bishop .....	—	—	—	31	31
Alton Hospital .....	—	—	—	7	7
Bath Ortho. Hospital .....	—	—	—	5	5
Heatherwood .....	—	—	—	1	1
	82	4	95	51	232

TABLE XIV.

## Cases treated through the County Dispensaries.

Dispensary.	Persons treated at Dispensaries during 1927.		Under treatment at Dispensaries Dec. 31st, 1927.		Total Dispensary Attendances, 1927.	Total Persons examined 1927.
	Insured.	Uninsured.	Insured.	Uninsured		
Bath (City) .....	8	200	3	142	2,368	721
Bath (County) .....	2	42	1	18	439	141
Bridgwater .....	7	92	6	67	978	338
Bristol .....	3	59	10	16	697	230
Chard .....	15	26	12	22	203	182
*Cheddar .....	1	22	0	0	154	61
Clevedon .....	9	55	28	31	473	146
Frome .....	15	38	11	21	301	98
Glastonbury .....	9	50	9	39	445	162
Langport .....	16	35	9	23	251	92
Minehead .....	50	173	30	177	948	318
Radstock .....	1	56	1	46	414	132
Shepton Mallet .....	1	30	0	21	300	99
Taunton .....	2	184	0	90	1,050	355
Wellington .....	42	70	35	59	473	149
Weston-s-Mare .....	12	84	5	68	905	349
Wincanton .....	4	30	1	20	219	79
Yeovil .....	52	72	10	22	877	309
	249	1,318	171	882	11,495	3,961
	1,567		1,053			

\* Closed in July.



TABLE XV.

**Table showing the work of the Dispensaries during the Year 1927.**

[illegible]



**cases discharged from Residential Institutions during the year 1927.**

[illegible]



TABLE XVII.

Table showing in summary form the condition of all patients whose case records are in the possession of the dispensaries at the end of 1927, arranged according to the years in which the Patients first came under Public Medical Treatment.

Condition at the time of the last record made during the year to which the Return relates.				Previous to 1926.		1926.										1927.									
				PULMONARY AND NON-PULMONARY.		PULMONARY.						NON-PULMONARY.				PULMONARY.					NON-PULMONARY.				
				ALL GROUPS.		Class T.B. minus.	Class T.B. plus.				Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Class T.B. Minus.	Class T.B. plus.				Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.
							Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).							Group 1.	Group 2.	Group 3.	Total (Class T.B. plus).					
Alive.	CURED.	Adults	M.	683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			F.	621	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Child-ren.	M.	1119	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			F.		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WORKING.	Adults	M.	294	58	7	13	2	22	6	2	2	-	10	58	2	7	-	9	1	-	1	-	-	-
			F.	374	100	1	5	1	7	3	3	-	8	14	69	-	7	-	7	1	3	-	3	7	-
		Child-ren.	M.	244	43	-	-	-	-	3	5	2	14	24	16	-	-	-	-	-	1	1	10	12	-
			F.	218	31	-	-	-	-	1	1	1	9	12	13	-	-	-	-	1	-	-	8	9	-
	NOT WORKING.	Adults	M.	140	19	2	15	4	21	3	-	-	1	4	60	4	27	13	44	6	1	1	-	8	-
			F.	112	24	2	20	8	30	3	1	-	-	4	92	6	27	12	45	3	3	1	-	7	-
		Child-ren.	M.	36	11	-	1	-	1	4	3	-	4	11	26	-	-	-	-	11	2	2	4	19	-
			F.	50	7	-	1	-	1	3	2	2	4	11	28	-	-	1	1	3	3	1	3	10	-
LOST SIGHT OF OR REMOVED.					848	24	-	5	2	7	2	1	-	3	6	19	-	4	3	7	2	2	-	1	5
DEAD.	Adults	M.	870	8	3	19	21	43	-	-	-	-	-	7	-	2	8	10	2	-	-	-	2	-	
		F.	728	16	1	9	14	24	2	2	-	-	4	8	-	2	11	13	-	1	-	-	1	-	
	Child-ren.	M.	120	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	-	
		F.		3	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	
DEAD (Unclassified)					124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Totals					6581	345	16	88	52	156	30	20	7	43	100	398	12	76	48	136	30	17	7	29	83



**Quantock Sanatorium.** The Superintendent, Dr. J. C. McMillan, has furnished the following report :—

The Sanatorium has been open for the reception of 62 cases (30 male and 32 female) throughout the year 1927. During this period 115 patients have been admitted, of whom 51 were males and 64 females. 117 patients were discharged, 52 males and 65 females. There were two deaths during the year, both men.

The average stay for female patients was 177 days and for male patients 209.5 days. This is an average stay of about 27 weeks for each patient. Seven patients left the Sanatorium before the completion of four weeks treatment, most of these went for domestic reasons.

The treatment in the Sanatorium was carried on in the same way as in the previous year that is, by graduated walks and graduated labour, with regular rest hours and regular meals under open air conditions. The provision of a double verandah on the south side of the Sanatorium would in my opinion, greatly improve the conditions under which the regular rest is taken. At present, the patients have to rest in the wards during the winter months and so cannot get so much light and fresh air.

The Sanatorium in addition to the treatment of the patient, fulfills another important function. It stands for a "way of living" and is not merely a place with salubrious air where consumptives are cured.

#### *Results of Treatment.*

Increase in weight. (in lbs.)	1—5	5—10.	10—15.	15—20.	Over 20.	Total.
Males .....	7	10	12	9	7	45
Females .....	8	17	16	7	5*	53

The average gain in weight of all patients (110) weighed on discharge = 10.7 lbs.

ditto of 50 male ditto = 11.6 lbs.

ditto of 60 female ditto = 10.0 lbs.

The average loss in weight of 12 patients weighed on discharge = 4.5 lbs.

Seven patients were not weighed on discharge. Of these 2 died, 2 remained only 4 days and 3 were on absolute rest.

With some exceptions the weight readings may be taken as a fair index of the progress of the patient. A persistent rise in the weight spread over some months in conjunction with a normal temperature in a patient on graduated exercise is a very good sign.

One finds that the maximum increase in weight occurs in the colder months and the minimum increase in the warmer months.

The average gain in weight in 1927 shows an increase of  $1\frac{1}{2}$  lbs. over 1926. This is undoubtedly due to the more prolonged stay of patients during 1927.

#### **Working capacity of patients on admission and discharge.**

	Full working capacity.		Fit for light work.		Unfit for work.	
	Admission.	Discharge.	Admission.	Discharge.	Admission.	Discharge.
Males	0	26 = 50.0 %	4	15 = 28.8 %	48	9 = 17.3 %
Females	0	38 = 58.4 %	7	14 = 21.5 %	58	13 = 20.0 %

( 2 male patients died = 3.8 % )

On admission 90.6 % of all patients were unfit for any work, 9.4 % were fit for light work. On discharge 54.7 % of all patients were fit for full work, 24.7 % for light work and 18.8 % were unfit for work. 1.7 % died. These results are practically the same as last year.



*Duration of Treatment and Condition on discharge.*

		Under 3 months.			3—6 months.			6—12 months.			Total.
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Class TB Minus.	Quiescent .....	7	4	0	7	20	0	9	13	2	62
	Improved .....	0	3	1	1	4	0	2	4	0	15
	No material improvement .....	1	1	0	1	0	0	0	0	0	3
	Died .....	0	0	0	0	0	0	1	0	0	1
Class TB + Group 1.	Quiescent .....	0	0	0	0	0	0	0	0	0	0
	Improved .....	0	0	0	0	0	0	0	0	0	0
	No material improvement .....	0	0	0	0	0	0	0	0	0	0
	Died .....	0	0	0	0	0	0	0	0	0	0
Class TB + Group 2.	Quiescent .....	0	0	0	3	0	0	1	0	0	4
	Improved .....	1	2	0	7	1	0	3	6	0	20
	No material improvement .....	0	0	0	0	0	0	1	0	0	1
	Died .....	0	0	0	0	0	0	0	0	0	0
Class TB + Group 3.	Quiescent .....	0	0	0	0	0	0	1	0	0	1
	Improved .....	0	0	0	1	0	0	3	3	0	7
	No material improvement .....	0	1	0	0	1	0	0	0	0	2
	Died .....	0	0	0	0	0	0	1	0	0	1

In 28 out of a total of 51 men discharged (or died) the disease was quiescent = 54.9 %.

In 37 out of a total of 63 women discharged the disease was quiescent = 58.7 %.

Of the 3 children discharged 2 were quiescent.

The percentage of cases quiescent on discharge shows a big increase over the 1926 results. This is due to the more prolonged stay of patients during the year.



*Classification on admission of cases discharged during 1927.*

<i>Classification.</i>	No.	%	M.	F.	Tubercle Bacilli.			
					Positive.		Negative.	
					M.	F.	M.	F.
Early .....	19	16.2	7	12	0	0	7	12
Intermediate .....	87	74.3	39	48	17	9	22	39
Advanced .....	11	9.4	6	5	5	5	1	0

*Complications.* Tubercular complications presented by the patients were : larynx 7, peripheral glands 2, abdomen 3, kidneys 2, fistula in ano 1, hip 1, thickened pleura 1, ulceration of fauces—oro pharynx 1.

A considerable number of the patients received dental treatment under the National Health Insurance Scheme, this treatment is recommended by one of the County Dental Officers who visits the Sanatorium regularly. The majority of the patients admitted to the Sanatorium are insured patients.

It will be seen from the foregoing tables that the results of treatment in the Sanatorium are a decided improvement on those of the previous year. The patients are now much more anxious to remain in the Sanatorium until they are fit for work than was previously the case, and in my opinion the results justify the more prolonged treatment, which should also diminish the number of relapses in the future.

The social side of the work has been carried on as in the previous year. Concert parties have visited the Sanatorium from time to time. Outdoor games, viz., croquet and clock golf are played by patients in the Spring and Summer months and competitions are arranged frequently. A new lawn for croquet and clock golf is in process of being made for the women patients. When this is completed, both male and female patients will have their own lawns.

In the Winter, the billiard table is in great demand by the male patients, and frequent billiard and snooker competitions are held. New records for the gramophone, as well as the prizes for the different competitions, are bought out of the profits of the Canteen. The Library is gradually increasing in size, thanks to the presents of books received from various people.

### **Treatment with Artificial Light.**

This work is being carried out under Tuberculosis, Education and Maternity and Child Welfare Schemes, so is most conveniently described separately. Three light treatment centres were in use during most of 1927. The centre at Bridgwater was opened November, 1926, that at Yeovil in January, 1927, and that at Weston-super-Mare in May, 1927. A K.B.B. Mercury Vapour Lamp is used at each of the centres. The medical treatment is under Dr. Short and other Medical Officers but the care of the apparatus and the actual giving of treatment is under Miss Palmer, a whole time Nurse on the staff of the County Council, with special experience of this work.

The cases treated, and results obtained, are shown in the following two tables :—



TABLE XVIII.

CENTRE.	Number of clinics held	New cases seen.	TOTAL ATTENDANCES.					
			Infant.	Educa- tion.	Tuber- culosis.	Adult.	From Outside areas.	All.
Bridgwater .....	93	56	1123	340	96	0	120	1679
Weston-super-Mare	60	36	38	395	273	16	29	751
Yeovil .....	87	59	68	451	470	0	0	989
TOTAL .....	240	151	1229	1186	839	16	149	3419

TABLE XIX.

	TUBERCULOSIS.						RICKETS.	DEBILITY AND MALNUTRITION.	GLANDS (Not T.B.).	OTHERS.	TOTAL (all cases).
	Lungs.	Glands.	Abdomen.	Bones & Joints.	Other forms.	TOTAL.					
Cured or improved .....	5	5	1	2	—	13	19	38	2	—	72
I.S.Q. ....	1	—	—	2	—	3	9	9	—	—	21
Worse ....	—	—	—	1	—	1	—	1	1	—	3
Still under treatment .....	1	3	3	2	2	11	21	36	4	1	73
TOTAL .....	7	8	4	7	2	28	49	84	7	1	169



The average duration of treatment for a full course has been found to be about 40 exposures.

The cost of treatment for 1927, with salaries and travelling expenses, was £450. It is intended to increase the number of lamps and gradually make light treatment facilities part of the ordinary equipment of each dispensary. Two new centres are authorised to be opened in 1928. The absence of electric current prevents some clinics being utilised.

## MATERNITY AND INFANT WELFARE.

**Rate of Infantile Mortality.** This is the number of deaths under one year of age per 1,000 births. For 1927 it was 45.94, practically identical with the rate for 1923, which is the lowest on record in the County. The Urban and Rural rates are shown in Table II. and the causes of the 265 deaths in Table A (at end of the Report).

Table XX shows the months of death. These figures do not 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 145 of the 261 deaths under one year of age took place before the child was a month old. This is 56 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 very low infantile mortality rate is realized when it is stated that of the babies which survive the first month, all but one in 50 live at least beyond their first birthday.

**The Midwifery Service.** The number of certified midwives who gave notice of their intention to practise during 1927 was 335, consisting of 324 trained and 11 "bona-fide" midwives.

**Midwives Act.** The percentage of 1927 births in the County attended by trained midwives as midwives was 57.4, by bona-fide 1.6, the remaining 41 per cent. being, for the most part, attended by medical men, a small but uncertain proportion being attended by uncertified women.

The proportion of cases taken by trained midwives steadily increases. For example, 11 years previously (1916) the trained midwives attended 35.3, the bona-fide 7.7 per cent. and the doctors' cases were 57 per cent. It is fitting and necessary therefore that more and more attention should be paid to the training and supervision of midwives.

During the year 1937 visits of inspection were made to trained midwives and 31 visits to bona-fide midwives, representing an average of 4.4 visits to each trained and 3.4 visits to each bona-fide midwife.



*Summary for all Midwives during the year.*

	<i>Trained.</i>	<i>Bona-fide.</i>	<i>Total.</i>
Cases attended as Midwife	3310	92	3402
Cases attended as Monthly Nurse	1174	17	1191
Doctor sent for for Mother	788	10	798
Doctor sent for for Child	176	4	180
Still Births	61	4	65
Death of Mother	8	0	8
Death of Child	24	1	25

A doctor was called in under Section 14 of the Midwives' Act in 29.1 per cent. of their cases by the trained and in 15.2 per cent. of cases by the bona-fide midwives. For both classes of cases this was 28.7 per cent.

During the year 705 doctors' accounts were paid under the contributory scheme, at a cost of £1,072 11s. 0d., while the contributory fees were £657 12s. 0d., the deficit payable by the County Council being £414 19s. 0d. The average doctor's fee per case was £1 10s. 5d. Fees amounting to £76 1s. 0d. were paid in 48 cases not coming under the scheme, and of this £35 15s. was recovered. Apart from Central Office Expenses, the cost of working this section of the Midwives' Act for 1927 was, therefore, £455 5s. 0d. This is £82 2s. 9d. less than in the previous 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 since 1910 are shown in the following Table. :—

**MATERNAL DEATHS—ADMINISTRATIVE COUNTY OF SOMERSET.**

	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
Puerperal Sepsis	7	8	9	8	1	5	7	4	8	6	9	5	2	4	5	10	6	12
Other Accidents and Diseases of Pregnancy and Parturition	35	13	17	20	21	18	24	17	20	9	21	22	15	13	19	16	15	11
Total	42	21	26	28	22	23	31	21	28	15	30	27	17	17	24	26	21	23
Rate per 1,000 Births	4.96	2.53	3.48	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



While considerable fluctuations occur, there is no decided fall in this rate and it must be considered unsatisfactory. The rate in Somerset is rather below that for the country generally and the reduction of these maternal deaths is a national problem which is receiving much attention.

The Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations 1926, came into force October 1st, 1926. The expression "Puerperal Fever" is an indefinite and therefore unsatisfactory one. At present two terms are retained, but probably in time one term will be substituted for the two. Puerperal Pyrexia is definitely defined as "Any febrile condition occurring in a woman within 21 days after childbirth or miscarriage in which a temperature of 100.4° F. or more has been sustained during a period of 24 hours or has recurred during that period." While such a definition is clear cut it must include many conditions of no dangerous significance so the number of such notifications is likely to be considerable.

During the year 12 cases of Puerperal Fever and 75 cases of Puerperal Pyrexia were notified. Arrangements have been made with different Hospitals to take in County cases and facilities are offered. During 1927 only one case was so admitted. 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, Wells Hospital, Yeovil Hospital.

**Ophthalmia Neonatorum.** During the year 31 cases were notified. The distribution of the cases is shown in Table V. Of these cases, one baby died in Hospital. Under the Public Health (Ophthalmia Neonatorum) Regulations 1926, 2 cases were sent to Hospital under the County Council scheme and in 3 cases (2 being twins in the same house) a special nurse was supplied. I am very glad to be able to report that there was complete recovery in all the 30 surviving cases and without any damage to the eyes.

**Maternity Homes.** From January 1st, 1927, no premises are allowed to be used as a Maternity Home unless approved and registered by the local supervising authority or unless exempted under certain special conditions. During 1927, twenty-one such homes made direct application for registration, all but two of which I visited and inspected myself. A very thorough examination and inquiry was made in each instance. In one case (Burnham-on-Sea War Memorial Hospital), exemption was granted, one applicant on being advised as to the requirements withdrew her application, two were refused as unsuitable, while registration certificates were granted in the remaining 17 instances.

Certain requirements, as regards keeping of records, notification of infectious illness, particulars if the baby went anywhere but home with the mother, etc. were made obligatory before registration was granted and it was not considered necessary to make special bye-laws. Re-visits are paid by Miss Gane or myself (and Dr. Halliday in 1928) from time to time, as we are in the neighbourhood.

**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 2,026 cases at an estimated cost of £578. Last year £732 was spent.

The grants were carefully made and supervised, and given as allowances for specific public health purposes. Of the grants made about 18 per cent. were to expectant mothers, 48 per cent to nursing mothers, and 34 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.** As mentioned in earlier reports, this is now an important part of the work. Ante-natal cards are supplied to all the midwives upon which to record their visits before birth, and the results of those visits. Arrangements are available for the examination of urine and other specimens in the County Laboratory free of cost to midwives. Leaflets to expectant mothers are supplied and distributed. Special attention is paid to granting milk to expectant mothers. This side of the work is advancing slowly but satisfactory progress is being made.



**Work of Infant Visitors.** The work has been on the same lines as in previous years.

The births during 1927 were referred for visits as follows :—

	Rural.	Urban.	Total.
Whole-time County Staff .....	361	322	683
District Nurses .....	3167	1056	4223
	<u>3528</u>	<u>1378</u>	<u>4906</u>

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 3 to 4 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.

TABLE XX.  
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 .....	5	2	7	2	5	14	Axbridge .....	3	6	9	4	2	15
Burnham .....	0	0	0	2	1	3	Bath .....	1	0	1	2	3	6
Chard .....	1	0	1	0	0	1	Bridgwater .....	5	3	8	4	6	18
Clevedon .....	0	0	0	0	1	1	Chard .....	3	3	6	3	0	9
Crewkerne .....	3	0	3	1	1	5	Clutton .....	4	1	5	3	4	12
Frome .....	1	1	2	1	0	3	Dulverton .....	2	0	2	0	1	3
Glastonbury .....	2	0	2	0	1	3	Frome .....	3	3	6	3	0	9
Highbridge .....	0	0	0	2	1	3	Keynsham .....	1	1	2	1	1	4
Ilminster .....	0	0	0	0	0	0	Langport .....	1	1	2	2	3	7
Midsomer Norton .....	2	1	3	3	2	8	Long Ashton .....	6	0	6	2	2	10
Minehead .....	0	1	1	1	0	2	Shepton Mallet .....	1	2	3	4	1	8
Portishead .....	1	0	1	2	0	3	Taunton .....	6	2	8	0	1	9
Radstock .....	0	1	1	0	1	2	Wellington .....	7	1	8	1	1	10
Shepton Mallet .....	3	0	3	1	1	5	Wells .....	5	0	5	2	2	9
Street .....	1	0	1	1	1	3	Williton .....	0	0	0	2	0	2
Taunton .....	7	1	8	3	1	12	Wincanton .....	2	2	4	1	1	6
Watchet .....	0	0	0	0	0	0	Yeovil .....	11	1	12	3	3	18
Wellington .....	1	2	3	1	0	4							
Wells .....	3	3	6	0	1	7							
Weston-super-Mare .....	7	0	7	5	3	15							
Wiveliscombe .....	0	0	0	0	0	0							
Yeovil .....	7	2	9	2	1	12							
Totals	44	14	58	27	21	106	Totals	61	26	87	37	31	155



**Infant Welfare Centres.** At the end of 1927 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.
Chard	Friday	1st and 3rd Friday in every month.
Clevedon	Thursday	Every Thursday except 1st in month. Doctor last Thursday each month.
Crewkerne	Tuesday	Alternate weeks.
Frome	Tuesday	Every week.
Harptree	Tuesday	Alternate weeks.
Long Ashton	Monday	Alternate weeks.
Oare, Culbone, etc.	—	—
Pill	Tuesday	1st and 3rd Tuesday in every month.
Shepton Mallet	Friday	Alternate weeks.
Street	Wednesday	Every week for weighing. Once a month Doctor's consultation.
Wraxall	Friday	1st and 3rd Friday in every month.
Wellington	Thursday	Every week. 1st Thursday Doctor's day.
Wells	Tuesday	2nd and 4th Tuesday in every month.

Valuable work is being done at these Centres, but the attendance at many of them is not large. Except Bridgwater none are being worked through the County Council, but its Officers are in touch with all of them and, as far as possible, a close connection is maintained between the work of the Centre and the home visits paid by the County Council staff.

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

*Births.* During 1927 the number of births notified was 281, of these 197 were attended by midwives. A doctor was called in to help the midwife in 59 cases. 14 babies died during the year at a rate of 55.6 deaths per 1,000 births.

<i>Home Visiting.</i>	No. of children on visiting list	770
	No. of first visits paid	259
	Total visits paid to infants	3482
	Ante-natal visits	65
	Total visits paid during 1927	3547

*Milk Grants.* 50 grants were made, at an estimated cost of £107. 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	.....	350
	Average weekly attendance of mothers	.....	51
	Average weekly attendance of babies and other children	.....	67
	Total number of attendances	.....	4340
	Total number of medical consultations for infants	.....	1297
	Total number of medical consultations for women (excluding ante-natal)	.....	102

The medical work was carried out by Dr. Symons, who attended each week.

The attendances at lectures and talks have been considerable, and during the year averaged an attendance of over 40. Interest was stimulated by a Baby and Mothercraft Competition.

*Ante-Natal Work.* This was carried on throughout the year both by home visits and by inviting attendance at the Ante-natal Centre. The latter is slowly improving, the total attendances being 92, with 44 women attending.

There is a very helpful Voluntary Committee which provides voluntary workers for the Centre. Virol, Dried Milk, and Feeding Bottles are supplied at the Centre at cost price ; suitable cases are helped out of local funds.

The work at the Centre and in the homes is undoubtedly bearing fruit, there is a higher standard of infant care and more interest is being taken by mothers in mothercraft. Miss Goddard's work has been most devoted and thorough and the Local Committee and Voluntary Staff of the Welfare Centre have been very helpful and have given up much time to the work.

**Baby Hospital, Bridgwater.** This Hospital has continued to be very useful and valuable. Undoubtedly the lives of a number of babies have been saved, while other infants have been restored to health in a much shorter time than would have been the case at home.

At the beginning at 1927, there were four babies in the Ward, while during 1927 seventeen cases were admitted. Two of these 21 cases died in Hospital, a few hours and 2 weeks respectively after admission. The other 19 cases were discharged in 1927 or 1928, greatly improved in health, most being normal or nearly normal babies. Our latest reports are that all are making satisfactory progress apart from one that died some months after leaving the Hospital.

**Rickets.** The problem of rickets in rural areas is a very different one from that in crowded urban districts. Infant Welfare Centres are not available in most places and the mothers often will not bring the children, even if Centres are available. The cases can only be dealt with by means of visits to the homes. A different procedure has therefore to be devised for ascertainment and for the provision of treatment in rural areas.

The view that rickets is a disease of crowded, sunless, urban conditions is apt to lead to the complacent view that it is absent, or at least, rare, in rural areas. Experience does not bear this out. In Somerset the stigmata of arrested rickets are found in a good many children at medical inspections, while when the orthopaedic scheme was started in 1925, it was soon evident that the rickets problem was a very real one. Of the 673 cases seen for the first time 83 were classed as rickets and 67 as knock knees (mostly old rickets), while some additional cases grouped under other defects were undoubtedly due to rickets.

The County Scheme was started in May, 1926, and the following are its essential features. In Somerset the infant visiting scheme is complicated by the fact that most of it is done by district nurses but in the few districts with no district nurse by whole-time County Health Visitors. The health visitors are also responsible for a number of duties in connection with Maternity and Child Welfare work, such as grants of milk.



It is not reasonable to expect Health Visitors, much less District Nurses, to diagnose rickets but they can all *suspect* its presence. To aid them to do so a special leaflet on the symptoms of rickets has been compiled and circulated to each Infant Visitor. All suspected cases have to be reported to me. These details are then set out on a special rickets register form and a visit is paid by the Health Visitor of the area to obtain the full necessary particulars. The Health Visitors do this work whether or not the primary information came from a District Nurse as Infant Visitor. From these particulars it is usually possible to have a good idea as to whether the child is or is not suffering from rickets, but this is confirmed by a medical report. If the child is under medical treatment this is ascertained by the Health Visitor and the case is left to the doctor in charge to treat, special supervision only being given. If not under medical treatment, one of the County Medical Staff arranges to see the child and gives a report written in the space provided on the register Form. As required, these children are again examined by the medical staff.

*Treatment Given.* The rickets form contains many items and necessitates therefore very detailed inquiries as to the home conditions, methods of feeding, exercise given, etc. These inquiries throw much light upon the defective conditions of rearing and focus attention upon the need for alteration. Indeed, the first line of treatment may be said to be an endeavour to correct faulty upbringing and get the mother to realize the importance of proper feeding, exercise, light and sunlight. While each mother is given a special leaflet on the subject, reliance is mainly upon the advice and influence of the Health Visitor.

Nearly all these babies are not under any medical treatment and the mothers will not take them to a doctor, indeed, usually they do not realise the need for treatment. If they do consult a doctor it is only for some incurrent infection such as bronchitis. This is treated, but little attention is paid to the rickets condition behind, although the doctor may advise them on the matter.

The active treatment given usually takes the form of grants of cod liver oil or of milk. The usual financial particulars are obtained and these foods are either given free or at half cost or, as regards cod liver oil, sold at cost price. A certain number of these grants are given on the advice of the local doctor when the case is under his treatment; where there is no doctor in attendance on the advice of the County Medical Staff. Renewals are made at 4 or 6 weekly intervals and only after a visit and recommendation by the County Health Visitor concerned.

The form of cod liver oil found most suitable is "Ostelin," a special preparation of cod liver oil and malt extract. Excess of sugar is harmful for rickets cases and the ordinary malt and oil contains too small a proportion of oil (not greater than 15 %) to malt to be satisfactory. Ostelin contains 50 % cod liver oil and is a palatable preparation and one we have found taken readily in nearly all cases. Each tin holds 10 liquid ounces and the dose prescribed is three small teaspoonfuls a day. On this basis each tin is calculated to last 2 weeks, at a cost of 9½d. per week. Three tins are authorised each time so extensions are made every 6 weeks. In the hot weather in some cases this preparation is discontinued and milk substituted.

Light treatment is available under County Council officers at three centres—Bridgwater, Weston-super-Mare and Yeovil, and rickets cases within reach of these centres have been given light treatment when they were able to attend. The County Council has authorised an extension of the number of these centres. During the year, 49 definite rickets cases were treated at these centres, (Bridgwater 25, Weston 9, Yeovil 15). The reports are that 19 were cured or markedly improved, 9 unaltered (mostly through very irregular attendance), none were worse and the remaining 21 were still under treatment.

Cases which had passed into the stage of definite crippling were referred to the nearest Orthopaedic Clinic for advice and treatment. If there was, in addition, evidence of active disease medical treatment was also continued.

*Cases Treated.* The cases reported to the end of 1927, i.e., over a period of 1½ years, are included. During the year, 208 fresh cases of rickets, or suspected rickets, were reported, while 129 accepted cases were reported up to the end of the year 1926. Of the cases reported as suspected in 1927, 65 were excluded as probably not rickets and 9 cases were not active rickets but cases of deformity resulting from rickets and were transferred to the Orthopaedic Scheme. This leaves



263 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 1927, judged from the facts recorded on the register forms, were as follows :—

TABLE XXI.

RESULTS OF TREATMENT.	A.	B.	C.	TOTAL.
Cured .....	7	38	13	58
No further treatment required and only kept under supervision .....	10	11	6	27
Greatly improved but still under treatment .....	21	30	5	56
Improved—still under treatment .....	10	25	5	40
No visible improvement .....	8	1	3	12
Recent cases still under treatment .....	9	30	7	46
Died .....	2	1	0	3
Left the County .....	3	6	0	9
Definite deformity the main defect and transferred to Orthopaedic Scheme .....	12	0	0	12
Totals .....	82	142	39	263

The "recent cases still under treatment" includes all cases the treatment of which was commenced within 4 months of the end of the year, i.e., all cases reported after September 1st, 1927.

These results must be considered very satisfactory. Excluding the recent cases, the 3 deaths and the 9 who left the County, the figures show 28.3 per cent. cured, 13.2 per cent. practically cured, 46.8 per cent. improved but still under treatment and only 11.7 per cent. with no visible improvement or with definite deformity necessitating transfer to the Orthopaedic Clinic.

*Home Conditions.* Many of these cases only developed because the home conditions were unsatisfactory. One very big factor was poverty, and for many of these children undernourishment seemed to play the chief part. Equally important was the fact that the food given was often very unsuitable. Much education work is necessary as regards suitable feeding for babies 6—24 months old. Defective home conditions were fairly common and specific inquiries as to the amount of light and exercise given showed often that there was an insufficient use of light and sunlight. This should not be possible in a rural County like Somerset.

*Distribution of the Cases.* The distribution of the cases accepted for treatment, with a few which were rejected after further supervision, is shown in the following Table :—



TABLE XXII.

<i>Urban District.</i>	<i>Cases Reported.</i>	<i>Rural District.</i>	<i>Cases Reported.</i>
Bridgwater	25	Axbridge	6
Burnham	0	Bath	52
Chard	3	Bridgwater	10
Clevedon	7	Chard	11
Crewkerne	5	Clutton	7
Frome	7	Dulverton	10
Glastonbury	10	Frome	4
Highbridge	0	Keynsham	3
Ilminster	0	Langport	5
Midsomer Norton	2	Long Ashton	5
Minehead	1	Shepton Mallet	14
Portishead	0	Taunton	20
Radstock	2	Wellington	3
Shepton Mallet	0	Wells	3
Street	6	Williton	12
Taunton	—*	Wincanton	34
Watchet	5	Yeovil	14
Wellington	8		
Wells	1		
Weston-super-Mare	—*		
Wiveliscombe	0		
Yeovil	—*		
Total	82	Total	213

\* Separate Maternity and Child Welfare Authorities.

This Table includes a certain number of cases afterwards excluded as not rickets, so it does not correspond accurately with Table XXI which shows the results of treatment.

While this Table is very 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. Of the 295 cases in the Table 117 were notified by the whole-time Health Visitors and 178 by the District Nurses acting as Infant Visitors. The Health Visitors only supervise a comparatively small proportion of the births, so their proportion of notifications is very much higher.

The Table shows that the urban areas with the highest proportion of rickets notifications to births are Watchet, Glastonbury and Crewkerne, with Bridgwater, Wellington and Street next, and all about the same as one another. In the Rural Areas the Bath Rural Area has the extraordinary high proportion of 24 per 100 births, while the two next highest are Dulverton and Wincanton. Obviously, these figures are no more than interesting signposts pointing to the need for more detailed inquiry both in the areas with a high percentage of notifications and also in those with a very low proportion, since in the latter the cause may be failure to suspect rickets.



*General Remarks.* I have no doubt that the greater part of the striking decline in infant mortality is due to the general care and attention focussed upon baby rearing and not due to any one special factor. With the children over one year of age there is not the need for quite the same special attention, but all those not developing properly must be picked out. Many of these cases drift into rickets and mal-nourished conditions because of the lack of timely guidance and advice. Most of the children in Somerset grow up healthily and in the Rickets Scheme we are paying very special attention to those which are failing to progress properly. It includes in its operation more than cases of rickets since those not included in the Scheme do get some special attention and advice before they are excluded. Infant Visitors have to report all suspected cases and they are not expected to do more than that—the net is made a wide one.

I am satisfied that the Scheme is doing a great deal of good and at a very low cost. The cost of Ostelin for the year was about £77. In addition, a few pounds were spent on milk grants specially for rickets cases and a few pounds on malt and oil. The main cost is the time of the medical and nursing staff to see these cases. That cannot be separately computed as it is mixed up with their other work.

**Part I. Children Act, 1908.** Under this Act the supervision of boarded out children is arranged for by Boards of Guardians. It is an advantage if the supervision of the children under 7 years of age is carried out by the Health Visitors. This is done without charge at the request of the Board of Guardians in six unions, i.e., Bridgwater, Chard, Clutton, Keynsham, Langport and Williton.

Periodical reports are furnished to the different Boards of Guardians on forms provided by them.

### ORTHOPAEDIC SCHEME.

The County Scheme and the results of working during 1927 are described in considerable detail in my Report for 1927 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	.....	.....	.....	.....	15
Spastic paraplegia	.....	.....	.....	.....	7
Infantile paralysis (polio-myelitis)	.....	.....	.....	.....	24
Osteo-myelitis	.....	.....	.....	.....	3
Congenital dislocation of the hip	.....	.....	.....	.....	5
Club foot	.....	.....	.....	.....	16
Claw foot	.....	.....	.....	.....	2
Rickets	.....	.....	.....	.....	66
Knock knees (mostly old rickets)	.....	.....	.....	.....	69
Scoliosis	.....	.....	.....	.....	8
Torticollis	.....	.....	.....	.....	9
Crippling after fractures and injuries	.....	.....	.....	.....	8
Diseases and injuries of the toes	.....	.....	.....	.....	9
Postural deformities :—					
General defects of posture	.....	.....	.....	.....	34
Flat foot (often with other postural deformities)	.....	.....	.....	.....	25
Kyphosis	.....	.....	.....	.....	2
					61
Other defects and deformities	.....	.....	.....	.....	30
					<hr/> 332

Many of the old long standing cases have been dealt with and now a much larger percentage of the cases come to the Clinics in the comparatively early stages of crippling.



## HEALTH PROPAGANDA.

Miss Hobbs was away on sick leave for three months so not so much work was done during the year as otherwise would have been the case.

The Infant Welfare Exhibition, in its greatly improved and extended form, was held at three Centres during the year, i.e., at Crewkerne, Ilminster and Yeovil with, on the whole, good attendances. Twenty-four talks to mothers were given at 10 different Infant Welfare Centres.

Special attention was paid to the school side of propaganda work. A special course was arranged for teachers, consisting of 8 lectures on Physiology and Hygiene. This course was given at the following centres :—

Radstock	(Average attendance	28)
Weston-super-Mare	(           "           "	11)
Bristol	(           "           "	20)
Wellington	(           "           "	21)

A large number of posters and diagrams were obtained and made available, while lantern slides were shown at most of the lectures. The whole course was made as practical as possible and to bring out the kind of instruction to be given on hygiene to school children. Lists of suitable books and posters were made out and can be obtained by Head Teachers through the County Education Office. It is anticipated that Teachers who have attended this course will be able to give, or greatly improve, hygiene instruction to the children in their schools.

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. Forty such talks were given during the year.

The Health Week Committee, appointed by the Royal Sanitary Institute, offered a number of prizes to elementary and higher grade schools (each in the form of 10s. to be expended on books) for an essay competition among the children on "How Cleanliness helps you along the road to Health."

The Head Teacher was asked to select and submit one essay, considered the best, from the Boys' Department and one essay from the Girls' Department. 1,523 essays were received for the consideration of the examiners and of the 340 prizes awarded to scholars in England and Wales, excluding the London County Council Area, 34 were won by the Somerset Schools—2 of the successful scholars attended schools in the Borough of Bath but the other 32 attended schools controlled by the Somerset County Education Committee. The majority of prizes went to the schools where health talks had been given under the Health Propaganda Scheme or where teachers in the schools had attended the special Courses in Hygiene and Physiology arranged for Teachers.

600 painting books, supplied free by the Health and Cleanliness Council, have been distributed at the schools where health talks have been given and have been greatly appreciated by the children and proved a stimulus to encourage them to observe the general laws of health. Arrangements have been made with the teachers to distribute them to those children writing the best composition on the talk given or who have cleaned their teeth regularly, etc.

100 copies of a "Health Compendium" poster, issued by the Health and Cleanliness Council, have been purchased and distributed to the schools and infant welfare centres.

The total sale of literature for 1927 consisted of :—

Square Meal Cards	.....	.....	216
The Mothers Cookery Book	.....	.....	166
"Still Simpler Garments"	.....	.....	10
"To Mothers and Fathers"	.....	.....	78



In addition, free leaflets on Fresh Air and Ventilation : The Expectant Mother : Breast Feeding : Bottle Feeding : Weaning of Infants : Rickets : Care of the Teeth : Cancer : have been distributed where talks on these subjects have been given and at the Exhibitions.

Copies of the booklet "Hints for the busy Housewife" were provided free by the Health and Cleanliness Council for distribution to all mothers attending infant welfare centres and health exhibitions.

A very valuable selection of posters and other literature is now available for adult education as well as for use for children. Seven lectures to Women's Institutes, 5 public lectures (other than cancer) and 5 lectures to Girls Clubs or Girls Friendly Societies were given, nearly all by Miss Hobbs.

Special attention was paid to cancer as it is probable that more exact knowledge by the public would result in many cases going earlier to medical men for examination and with early diagnosis there is a much greater prospect of cure. Lectures were offered to all the Local Sanitary Authorities if they cared to make the local arrangements. The response was poor and only five areas asked for them. Lectures were given in all these places, two by Miss Hobbs and three by myself. At the three given by myself, at one there was a fairly good attendance, at another the response was splendid, at the third it was very poor. Many thousands of the County Council cancer leaflet were distributed at these lectures and through the Local Sanitary Authorities.

Venereal disease is a difficult subject for propaganda work in a County with no very large aggregations of population and no public lectures were given. At the teachers' courses at Radstock, Bristol and Wellington, an additional lecture on Sex Hygiene was given by Miss Hobbs to the women and it is proposed, in future courses, to give one to men teachers by a medical member of the staff. Special references to this subject are included in other lectures. Text books relating to these subjects have been added to the list of the County Library at Burnham for the use of teachers and other pamphlets issued by the British Social Hygiene Council have been recommended to the teachers.

The above is a short account of work done mainly by Miss Hobbs. In addition, a very great deal of propaganda work is carried out by the County Health Department as part of its ordinary routine work by all its Officers. This especially applies to tuberculosis, infant welfare work, and some aspects of school hygiene.



## SECTION III. GENERAL SANITARY ADMINISTRATION.

### WATER SUPPLIES.

The responsibility for ascertaining that a pure and adequate supply of water is available rests upon the Local Sanitary Authorities and County Councils have little or no powers.

While most of the Urban Districts have good supplies, the water supply in many rural parishes leaves much to be desired, and progress in obtaining a good water supply is very slow.

Shortage of water was experienced in Highbridge, Burnham and Watchet, and probably in other places not brought to my notice. At Highbridge negotiations still continue with the Axbridge R.D.C. in regard to the delivery of a more adequate supply. At Burnham additional pumping plant and a new main was required and sanction was obtained after some delay. At Watchet the difficulty was due to new areas being supplied from the same source without additional mains being constructed, resulting in shortage of delivery. This is to be remedied by reserving solely for Watchet the supply delivered through the original mains. Progress was made at Chard and Ilminster in regard to the installation of their new water supplies, but neither was completed during the year. At Portishead difficulties were experienced in regard to the quality of the water supplied and additional steps to guard the purity of the water at the source were carried out or are under consideration.

In the rural districts a few new supplies, such as at Stoke-sub-Hamdon and Chapel Allerton, were brought into use, but not much activity was shown during the year. The County Council has been pressing for many years for an adequate supply for certain parishes, including Huish Episcopi, Aller, Wedmore and Banwell.

### RIVER POLLUTION AND SEWERAGE.

No trouble was experienced during the year from the effluent from Milk Depots except as regards one at Brent Knoll. The drainage arrangements had to be entirely re-modelled, and so far no trouble has been experienced with the new disposal.

Many of the sewage disposal works in the County were visited during the year. The majority are working fairly well but, as regards the smaller installations, many were not being looked after properly. This is a common fault: adequate works are put in on the advice of an expert but are not kept in efficient order as their working is not properly controlled and the man in charge knows little or nothing as to their scientific working.

Broad irrigation over land is also a very satisfactory and cheap method of disposal if suitable land can be obtained. It is only satisfactory, however, if proper attention is paid to the distribution of the sewage. It is only too common to see what should be suitable arrangements as regards disposal in practice anything but satisfactory solely due to want of care and intelligence on the part of those in charge of the work. Rural District Councils should pay more attention to this side of sewage treatment and insist on proper care in working and upon supervision of those in charge. A number of such plants were dealt with during the year and advice given. Only three had to be brought to the notice of the County Council.

53 samples of sewage, effluents, etc. were examined in the County Laboratory.

Trouble from effluents from manufacturing processes are rare in the County and while several had to be dealt with, it was not necessary to report any to the Council for legal action.



## ADMINISTRATION OF THE HOUSING ACTS.

A feature now very noticeable throughout Somerset, and affecting most parts of it, is the large number of new houses which have been constructed. While many are in towns, they are most obvious in the villages, often in parishes where no or few houses have been built for generations. For the most part the sites have been well selected, there is adequate spacing between the houses with good gardens and the architectural features are pleasing, so that the general effect is satisfactory and in harmony with the rest of the village. It is desirable in this report to consider exactly what has been accomplished, the extent to which it has met the housing shortage and the degree to which it has succeeded in enabling unfit houses to be closed. In addition to the usual returns obtained from the District M.O.H., local authorities were asked to furnish particulars on a special return. The Tables submitted are from these different sources.

As regards construction, Tables XXIII and XXIV show the very considerable number of houses built during the last seven years. The increase is better appreciated if the totals are given.

	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

These figures show that after the considerable quantity of houses constructed under the original Government Scheme, all the cost of which above the produce of a 1d. rate was met by the Treasury, there was a marked diminution in the number of houses being built. 1925 showed a great improvement, while the increase in 1926, and again in 1927, is very marked. It is noticeable in both rural and urban areas.

Tables XXIII and XXIV show great differences in the various local sanitary areas. There has been a need for houses all over the County and while this need is considerably greater in some areas compared to others, the main factor is probably the different attitudes adopted by the local authorities. Some areas, such as Yeovil Borough and Yeovil Rural, have maintained a comparatively high rate of construction, others have done very little.

It is of interest to note the different ways the houses have been provided. Most of the authorities built houses under the 1919 Housing Act at a low cost to the rates but at a heavy cost to the Country generally. In some districts, particularly seaside resorts such as Burnham, Clevedon, Minehead and Weston-super-Mare and areas such as Long Ashton, Keynsham and Bath Rural adjacent to larger towns, many houses have been built by private enterprise. For the most part however, building has been mainly in evidence under the 1923 and 1924 Housing Acts.



## TABLE XXIII.

## HOUSING.

New Houses Constructed During Seven Years 1921—1927.

RURAL.		AXBRIDGE.	BATH.	BRIDGWATER.	CHARD.	CLUTTON.	DULVERTON.	FROME.	KEYNSHAM.	LANGPORT.	LONG ASHTON.	SHEPTON MALLET.	TAUNTON.	WELLINGTON.	WELLS.	WILLITON.	WINCANTON.	YEovil.
1921	A	19	8	22	4	62	0	52	28	0	15	38	26	0	24	46	77	105
	B1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	D	31	18	9	3	0	2	1	0	15	42	0	21	0	5	4	4	4
	E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1922	A	33	16	4	14	10	10	0	12	68	5	10	26	8	16	40	131	16
	B1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	D	18	22	0	11	8	5	2	29	8	74	0	8	0	6	14	1	12
	E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1923	A	0	0	0	0	0	0	0	0	0	0	0	3	0	0	6	0	0
	B1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B2	0	0	4	2	0	0	0	4	0	0	0	0	0	0	0	0	0
	C1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	D	50	15	22	9	18	9	3	14	18	103	4	21	0	7	24	12	27
	E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1924	A	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
	B1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B2	20	5	19	4	3	1	0	26	3	25	2	8	0	0	3	0	14
	C1	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0
	C2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0
	D	46	28	11	6	20	6	10	35	11	114	4	39	1	11	18	9	15
	E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1925	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B1	4	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	12
	B2	33	24	26	10	6	12	6	26	12	34	7	15	0	0	11	0	17
	C1	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	51	12
	C2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0
	D	37	37	10	5	26	3	7	45	5	165	8	37	2	13	16	11	16
	E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1926	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B1	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0
	B2	55	55	41	17	8	8	5	55	13	23	10	10	0	0	5	0	13
	C1	56	0	20	18	68	0	96	0	0	0	0	42	16	0	0	45	50
	C2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	9	0
	D	51	27	10	6	10	0	6	58	10	165	7	32	3	17	20	4	27
	E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1927	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B1	0	0	0	0	0	0	0	70	0	24	0	0	0	0	0	0	0
	B2	54	12	44	22	9	9	4	61	11	26	4	7	0	0	0	0	25
	C1	74	0	118	24	86	0	10	4	92	0	30	10	22	0	47	68	92
	C2	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	9	0
	D	41	15	11	1	14	4	0	55	3	132	3	24	3	12	13	9	30
	E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Houses Constructed		622	282	371	156	348	69	202	522	269	997	127	352	60	111	267	477	487
New Houses in 7 years per 1000 Population.		25.6	19.3	21.4	12.6	21.6	14.6	18.5	44.8	20.8	49.0	12.9	21.2	10.5	10.8	22.4	29.5	28.2



TABLE XXIV.  
HOUSING.

New Houses Constructed During Seven Years 1921—1927.

URBAN.		BRIDGWATER.	BURNHAM.	CHARD.	CLEVEDON.	CREWKERNE.	FROME.	GLASTONBURY.	HIGHBRIDGE.	ILMINSTER.	MIDSOMER NORTON.	MINEHEAD.	PORTISHEAD.	RADSTOCK.	SHEPTON MALLET.	STREET.	TAUNTON.	WATCHET.	WELLINGTON.	WELLS.	WESTON-SUPER- MARE.	WIVELISCOMBE.	YEovil.
1921	A	0	18	0	7	26	0	40	0	0	30	0	0	0	14	52	41	19	9	0	95	0	50
	B1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	D	0	5	0	2	0	0	0	0	0	0	39	9	0	0	0	4	0	1	0	25	0	7
E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1922	A	0	0	0	8	0	33	0	20	0	56	0	0	32	0	0	0	4	5	24	14	8	49
	B1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	D	0	5	0	20	0	8	0	0	0	0	51	6	0	0	0	10	0	1	0	41	0	0
E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1923	A	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0
	B1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
	B2	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	D	0	16	2	19	0	12	0	0	0	0	68	5	0	7	0	30	3	5	1	51	2	5
E	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	
1924	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B1	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	45
	B2	29	0	0	0	2	12	1	1	0	11	0	4	0	0	0	12	6	0	0	0	0	18
	C1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	6	0	0	0	0
	C2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	D	2	7	2	20	1	1	0	0	0	3	87	9	0	2	2	19	2	2	10	66	0	0
E	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	
1925	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B1	0	0	0	0	0	0	0	0	0	0	0	10	8	0	0	0	0	0	2	0	13	0
	B2	27	8	1	33	4	0	3	0	0	34	0	5	0	0	0	14	2	7	0	0	0	7
	C1	0	0	0	0	0	0	16	0	0	0	0	0	12	0	24	2	0	19	0	37	0	39
	C2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	D	1	5	0	18	3	8	0	0	0	1	77	10	0	1	0	7	0	3	5	107	1	3
E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1926	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B1	0	2	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8	0	0	0	20
	B2	26	15	8	28	5	2	4	21	0	15	0	30	1	7	11	48	8	8	0	0	0	37
	C1	47	27	0	8	24	18	0	10	6	0	0	28	0	43	108	0	23	0	51	0	27	0
	C2	0	0	8	0	0	0	0	0	0	0	0	10	0	0	0	0	0	3	0	0	0	0
	D	5	0	0	14	2	1	0	0	4	53	2	1	1	0	26	4	4	3	93	0	8	0
E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1927	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	B1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0
	B2	28	21	14	16	4	20	1	4	3	16	0	27	2	2	8	31	0	10	0	0	12	0
	C1	106	15	0	30	0	17	54	0	0	18	0	0	24	38	0	194	12	36	22	67	0	242
	C2	0	0	8	0	0	0	0	36	0	0	0	0	6	0	0	0	0	0	0	10	0	0
	D	2	1	1	8	1	3	0	0	0	1	52	7	0	1	0	22	1	4	2	101	0	10
E	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Houses Constructed		273	145	48	223	56	141	137	87	13	195	467	132	138	73	140	592	61	143	78	750	21	634
New Houses in 7 years per 1,000 Population.		17.0	26.9	11.6	33.8	15.7	13.0	31.1	32.9	5.9	24.2	78.0	32.5	35.0	17.3	31.1	24.1	33.1	20.4	17.6	28.5	16.9	38.4



*Notes to Tables XXIII and XXIV.*

- A.—The original Government Scheme (all the cost above 1d. rate from Treasury).
- B.—The Act of 1923 (Chamberlain Scheme)
  - (1) By way of direct construction on behalf of the Local Authority.
  - (2) By subsidy.
- C.—The Act of 1924 (Wheatley Scheme)
  - (1) By direct construction.
  - (2) By subsidy.
- D.—By private enterprise without subsidy.
- E.—By the Local Authority without any subsidy.

Under the Housing Act of 1923, the Treasury gives a subsidy of £6 for 20 years for houses constructed under regulations as to size, etc. This subsidy is paid through local authorities either as a lump sum grant paid after the completion of the houses or an annual payment spread over 20 years. The local authorities could add to the State subsidy out of local rates, and in most cases did so. Houses constructed under this Act were almost invariably sold and while some were occupied by persons of the working classes, the general tendency was for them to be sold to persons of rather higher economic position.

Under the Housing Act of 1924 a long programme of housing construction was aimed at, extending over 15 years. The subsidy was £9 a year for 40 years, or in the case of houses situated in an "agricultural parish" £12 10s. 0d. a year for 40 years. The houses have to be let to tenants who will reside in them, conditions limit the rents which may be charged and there are restrictions as to the size of the houses and their lay out. Such houses can only be sold under certain special conditions. The amount of the subsidy has recently been reduced.

Another interesting point which is shown in Tables XXIII and XXIV is the period of housing activity. Some areas have shown considerable activity under every scheme, some did well under the original Government Scheme but as soon as building meant a considerable burden on the rates their activities largely ceased. A few authorities were extremely slow and were apparently reluctant to do anything at first, but have shown considerable progress during the last few years, Bridgewater Borough and Langport Rural being the two most conspicuous examples.

It is of great practical importance to consider the effect of the considerable housing activity shown upon such problems as housing shortage, overcrowding, and the demolition of unfit houses. Unfortunately, the available data do not permit complete answers, but we can arrive at conclusions which are likely to be at least approximately correct.

The estimated increased population during the 7 years covered by the Tables has been 14,760 and if we allow six persons per house this necessitates 2,460 additional houses. At least 350 houses are required each year to supply the housing needs of the increasing population. The number of houses constructed during this period was 10,266 or an average of 1466 each year. These figures show a substantial effort and one which must have gone a long way to remove actual shortage and overcrowding. Returns and information from various sources do show a certain amount of overcrowding but at least part of this is economic the overcrowded families being unable to pay the rentals of higher rented houses rather than there being an absolute shortage of houses.

This economic side represents one of the least satisfactory features of the housing provision. The costs of construction remain such that the need to find tenants who can pay the high rents necessary has driven local authorities to select tenants who can pay rather than those whose needs are the most urgent. In the long run the general effect will be to set free lower rented houses and a general shifting, but this operates very slowly and the housing needs of the poorest and those with large families have by no means all been met. Most of the cases of overcrowding that I hear of belong to these groups, but probably there are a good many other classes represented.



TABLE XXV.

## HOUSES CLOSED AS UNFIT.

AREA.	1921	1922	1923	1924	1925	1926	1927	In the 7 years.
<b>RURAL.</b>								
AXBRIDGE	1	0	5	0	0	4	1	11
BATH	1	1	2	1	3	3	9	20
BRIDGWATER	0	0	1	0	1	1	1	4
CHARD	5	1	1	2	0	1	4	14
CLUTTON	0	0	0	0	0	0	3	3
DULVERTON	0	0	0	0	0	0	0	0
FROME	0	0	0	0	0	0	3	3
KEYNSHAM	0	0	0	0	0	0	0	0
LANGPORT	0	9	11	1	2	6	9	38
LONG ASHTON	0	0	0	3	19	7	3	32
SHEPTON MALLET	2	4	0	0	2	0	3	11
TAUNTON	0	0	0	0	2	7	0	9
WELLINGTON	0	0	0	0	2	0	0	2
WELLS	2	1	0	0	1	0	1	5
WILLITON	0	0	0	0	0	0	0	0
WINCANTON	0	0	0	1	9	1	1	12
YEovil	0	0	0	0	0	1	0	1
All Rural Areas	11	16	20	8	41	31	38	165
<b>URBAN.</b>								
BRIDGWATER	0	0	0	0	6	0	8	14
BURNHAM	0	0	0	0	0	0	0	0
CHARD	0	0	0	0	0	0	0	0
CLEVEDON	0	0	0	0	0	0	0	0
CREWKERNE	0	0	0	0	0	1	2	3
FROME	0	1	0	1	1	0	1	4
GLASTONBURY	0	7	6	4	3	0	17	37
HIGHBRIDGE	0	0	0	0	0	1	1	2
ILMINSTER	0	0	0	0	0	2	0	2
MIDSOMER NORTON	0	0	0	0	0	0	0	0
MINEHEAD	0	0	0	0	0	0	0	0
PORTISHEAD	0	0	0	0	0	0	0	0
RADSTOCK	0	0	0	0	0	0	0	0
SHEPTON MALLET	0	1	8	0	0	0	3	12
STREET	0	0	0	0	0	1	2	3
TAUNTON	1	0	0	0	0	6	16	23
WATCHET	0	0	0	0	0	0	0	0
WELLINGTON	2	0	0	4	0	1	0	7
WELLS	0	0	0	0	0	0	0	0
WESTON-SUPER-MARE	0	0	0	0	0	0	1	1
WIVELISCOMBE	0	0	1	0	0	0	0	1
YEovil	0	0	0	2	0	0	0	2
All Urban Areas	3	9	15	11	10	12	51	111
COUNTY.	14	25	35	19	51	43	89	276



TABLE XXVI.

RETURN OF HOUSES SCHEDULED AS UNFIT IN THE AREA AT THE END OF 1927.

URBAN.	NUMBER.	RURAL.	NUMBER.
BRIDGWATER .....	(Not known)	AXBRIDGE .....	520
BURNHAM-ON-SEA .....	0	BATH .....	120
CHARD .....	20 (Approx.)	BRIDGWATER .....	100 (Approx.)
CLEVEDON .....	24 (Approx.)	CHARD .....	15
CREWKERNE .....	20	CLUTTON .....	48
FROME .....	75	DULVERTON .....	0
GLASTONBURY .....	14	FROME .....	2
HIGHBRIDGE .....	3	KEYNSHAM .....	20
ILMINSTER .....	4	LANGPORT .....	125
MIDSOMER NORTON .....	30	LONG ASHTON .....	245
MINEHEAD .....	1	SHEPTON MALLET .....	12
PORTISHEAD .....	2	TAUNTON .....	(Not known)
RADSTOCK .....	7	WELLINGTON .....	0
SHEPTON MALLET .....	3	WELLS .....	2
STREET .....	2	WILLITON .....	40
TAUNTON .....	685	WINCANTON .....	10
WATCHET .....	1	YEOVIL .....	231
WELLINGTON .....	13		
WELLS .....	0		
WESTON-SUPER-MARE .....	0		
WIVELISCOMBE .....	2		
YEOVIL .....	31		
Totals .....	937		1,490



TABLE XXVII.  
HOUSING INSPECTIONS.

Area.	Houses inspected for housing defects.	Houses specially inspected under Housing Acts.	Number Found unfit.	Number defective but not unfit.	Houses Closed as unfit.
RURAL.					
AXBRIDGE .....	397	136	3	42	1
BATH .....	92	42	5	33	9
BRIDGWATER .....	246	118	3	55	1
CHARD .....	116	92	12	83	4
CLUTTON .....	109	18	3	26	3
DULVERTON .....	19	0	1	6	0
FROME .....	450	200	4	52	3
KEYNSHAM .....	104	59	4	78	0
LANGPORT .....	171	34	9	136	9
LONG ASHTON .....	214	0	3	201	3
SHEPTON MALLET .....	124	96	3	24	3
TAUNTON .....	762	762	0	107	0
WELLINGTON .....	108	60	0	30	0
WELLS .....	27	0	2	11	1
WILLITON .....	84	39	3	18	0
WINCANTON .....	324	324	2	230	1
YEOVIL .....	345	289	6	39	0
All Rural Areas.	3,692	2,269	63	1,171	38
URBAN.					
BRIDGWATER .....	209	107	22	181	8
BURNHAM .....	8	0	0	8	0
CHARD .....	157	85	0	22	0
CLEVEDON .....	28	5	1	8	0
CREWKERNE .....	130	101	3	101	2
FROME .....	253	145	2	86	1
GLASTONBURY .....	139	65	17	35	17
HIGHBRIDGE .....	85	0	4	1	1
ILMINSTER .....	46	12	3	12	0
M'SOMER NORTON .....	42	0	0	6	0
MINEHEAD .....	40	22	0	35	0
FORTISHEAD .....	37	10	0	16	0
RADSTOCK .....	578	125	7	380	0
SHEPTON MALLET .....	104	41	3	10	3
STREET .....	12	0	0	4	2
TAUNTON .....	1,085	381	16	341	16
WATCHET .....	80	0	0	30	0
WELLINGTON .....	304	18	0	82	0
WELLS .....	5	0	0	4	0
WESTON-S-MARE .....	153	33	1	75	1
WIVELISCOMBE .....	8	7	0	1	0
YEOVIL .....	154	154	5	69	0
All Urban Areas.	3,659	1,311	84	1,507	51
County.	7,351	3,580	147	2,678	89



When we come to the problem of the unfit house and its elimination the position is far less satisfactory. Table XXVI shows the official return for the Local Authorities of houses scheduled as unfit at the end of 1927. It cannot be taken as a correct account of the unfit houses as obviously some areas have taken no steps to make it correct. It is, for example, an absurd statement to say that there are no unfit houses in Dulverton Rural and only 2 in Frome Rural.

In the Autumn of 1919 returns had to be made by each Local Authority to the Ministry of Health of unfit houses. The estimate was 1,935 unfit and 5,511 seriously defective. As I pointed out then, and again in my Annual Report for 1921, this figure of 1,935 was an under estimate. Taking a low standard I stated "It is safe to say that there are in the Administrative County well over 2,000 houses unfit for habitation and which cannot be made fit with any reasonable expenditure." Since that date some of these houses have become derelict and have never been included in Closing Orders, a few have been so extensively reconstructed that they can no longer be classed as unfit although not really satisfactory, while some have been closed by the Local Authority. The figures for houses closed are shown in Table XXV and are not imposing. On the other hand, since 1919 many additional houses have become unfit. I think it must be concluded that there are still many houses, probably at least the 2,000 mentioned in my 1921 Report, which belong to the "unfit for habitation" group, and that while the extensive housing construction work has largely remedied the acute housing shortage it has not yet made much impression on the number of unfit houses.

Of course the problem, being an economic one, is a very difficult one to solve. The class of tenants living in these houses are usually low wage earners and cannot afford a high rent, while some are economically crippled by disease such as tuberculosis. If these houses are closed under the Housing Acts there are no houses they can go into at any rent they can afford to pay.

While the solution must be gradual, there is everything to be said for Local Authorities having a proper record of their unfit houses so that they may know the housing conditions in their area. These houses can then be closed as occasion offers and should never be allowed to be occupied by a fresh tenant. The owner should be informed they are scheduled as unfit. It may be mentioned that it is the statutory duty of every Local Authority to cause systematic housing inspection to be made in their area while Section 9 of the Consolidated Housing Act, 1925, states:—

"It shall be the duty of the Medical Officer of Health of every district to represent to the Local Authority of that district any dwelling house which appears to him to be in a state so dangerous or injurious to health as to be unfit for human habitation."

*Housing (Rural Workers) Act, 1926.*

The object of this Act is, in the words of the Ministry of Health "to secure a contribution to the improvement of housing conditions for agricultural labourers and other country workers by facilitating the reconditioning of old houses in such a way as to bring them up to modern standards of comfort and sanitation and by the conversion into dwellings of buildings not previously used for that purpose."

The Act is administered by the County Council and financial assistance is by grant or loan. Such financial assistance is only granted on certain specified conditions and with restrictions as to the rents to be charged, type of tenants to occupy, etc., which ensure that the houses shall be occupied by the right persons.

During 1927 only the steps necessary to bring the Act into force and arrange for its administrative working were carried out and no grants or loans were made during the year.

The aims of the Act are excellent and a good many rural houses could be brought under its operation. At the same time I think that not nearly so many old houses can be reconditioned as many people imagine. When the individual houses are examined, so many possess defects which cannot be remedied. They may have no proper water supply but have to fetch the water considerable distances, the bedroom windows may be so arranged that they cannot ventilate the rooms, unremovable causes of dampness remain, etc. The perpetuation of these houses is not desirable and many are literally worn out. A condition of the Act is that "the dwelling will after the completion of the works be in all respects fit for habitation as a dwelling by persons of the working classes."



It is a matter of some difficulty to say what standards should be required before this condition can be considered to be complied with. For the guidance of the officers inspecting, I have drawn up a memorandum of requirements to be met, which has been approved by the Special Sub-Committee dealing with the Act. As the question of standards is important, this memorandum is reproduced.

*Memorandum as to the requirements to be met for Houses reconstructed under the Housing (Rural Workers) Act.*

The guiding principle is not that these houses when reconstructed are to be as good as the average labourer's house in the district but that "this dwelling will, after the completion of the works, be in all respects fit for habitation as a dwelling by persons of the working classes."

We cannot regard a house as in all respects fit for habitation unless the reconditioned house meets the following requirements :—

Certain matters are essential apart from health fitness. For example, it is not worth while giving grants unless :—

- (a) The house is constructed of good material and of sufficient stability.
- (b) There is an adequate garden in all rural cases.
- (c) There is reasonable road access.
- (d) The reconstructed house is in good repair in every part.

The more special requirements of a fit house are :—

1. *Freedom from serious dampness.* I do not think the provision of a damp course can be insisted upon for reconditioned houses, but where there is no damp course any bad effects should be minimised by seeing that all rain water, drainage, etc., is taken well away from the foundations. Complete shutting and down pipes for rain water are an essential requirement, so is complete absence of any earth banking against the house.

2. *Satisfactory lighting, ventilation and air space.* No grants should be passed for houses which have not abundance of air space round, and for which all the rooms receive plenty of light. There must be through ventilation both downstairs and in the bedrooms.

The condition of the ventilation in each bedroom requires careful consideration. For instance, if the door and window are on the same side of the room the rest of the room is a pocket of unventilated air and cannot be allowed. The height of the window sills is important. In many old cottages they are only a foot or so above the level of the floor. This means they will rarely be used for ventilation. Any reconstruction must include alteration to such windows so that they can be used to ventilate properly. Every window must open top and bottom, and the area must not be less than 1-10th of the floor space. If less the reconstruction must include enlargement of the windows.

3. *Proper and adequate drainage and sanitary conveniences.* A water closet or a properly made earth closet can be accepted. If an earth closet there must be a boarded front and a hinged top (to keep out flies), there must be a separate receptacle for dry earth, and there must be adequate ventilation. The position must be suitable and every earth closet must be outside the house.

A sink in the scullery should be provided discharging over a gully and with the area immediately round the gully of impervious material to prevent ground contamination. Adequate arrangements for disposal of the slop water as well as from any sanitary conveniences are necessary.

In no case can two houses be allowed to share one sanitary convenience.

4. *A satisfactory water supply.* This must be pure, adequate and available. Permission to obtain water from the well of another house several hundred yards away cannot be accepted as giving an available supply.



5. *Adequate washing accommodation.* There must be, at the least, a copper, if possible in a separate washhouse. If in the scullery the latter must be large enough to accommodate it properly.

6. *Adequate facilities for preparing and cooking food.* This I think is a primary requisite and an ordinary open fire does not meet it.

7. *A separate larder.* This must be a separate place although it may be small, and have a window opening directly to the open air. It should not be in the living room itself or cut off as a part of it.

Other points demanding consideration are :—

*Bathroom.* While highly desirable I do not consider this as a requirement which can be insisted upon for houses reconditioned under this Act.

*Number of bedrooms.* Each case must be decided on its merits. I do not consider that a proposal should, of necessity, be turned down because the completed house only provides two bedrooms.



# 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 XXVIII.  
SLAUGHTER HOUSES.

Sanitary Area. (Urban).	Licensed.	Registered.	Total.	Sanitary Area. (Rural).	Licensed.	Registered.	Total.
Bridgwater	3	10	13	Axbridge	21	8	29
Burnham	2	0	2	Bath	1	11	12
Chard	3	1	4	Bridgwater	14	7	21
Clevedon	—	—	P	Chard	8	24	32
Crewkerne	0	4	4	Clutton	8	15	23
Frome	1	6	7	Dulverton	0	5	5
Glastonbury	1	4	5	Frome	12	0	12
Highbridge	5	1	6	Keynsham	4	8	12
Ilminster	2	3	5	Langport	12	2	14
Midsomer Norton	2	2	4	Long Ashton	1	11	12
Minehead	—	—	P	Shepton Mallet	15	0	15
Portishead	2	2	4	Taunton	33	0	33
Radstock	3	3	6	Wellington	2	3	5
Shepton Mallet	4	2	6	Wells	15	2	17
Street	5	0	5	Williton	5	6	11
Taunton	5	6	11	Wincanton	0	15	15
Watchet	1	2	3	Yeovil	29	0	29
Wellington	1	8	9				
Wells	5	6	11				
Weston-super-Mare	—	—	P				
Wiveliscombe	2	0	2	Total.	180	117	297
Yeovil	8	0	8				
Total.	55	60	115	County Total.	235	177	412

P = Public Slaughter-house.

Table XXIX records the meat condemned during 1927. It will be noted that in a number of areas none was condemned at all. This applies more particularly to some of the Rural districts. In spite of the 1924 Regulations it is not difficult for diseased animals to be killed and unsound meat to be sold for human consumption. Until all slaughter and preparation for sale is carried out in a few properly supervised public abattoirs this possibility will exist.



TABLE XXIX.  
MEAT CONDEMNED DURING 1927.

AREA.	Animals and parts condemned.										
	Pigs.			Oxen and Calves.				Sheep.		Other Animals.	
URBAN.	Whole Carcase.	Head.	Internal Organs alone.	Whole Carcase.	Fore or Hind Quarters alone.	Head.	Internal Organs alone.	Whole Carcase.	Organs alone.	Whole Carcase.	Organs alone.
Bridgwater	8	24	70	1	4	7	77	11	128	28	0†
Burnham	0	0	0	0	0	0	0	0	0	0	0
Chard	1	2	0	1	1	0	0	1	0	0	0
Clevedon	0	0	0	0	1	0	1	0	0	0	0
Crewkerne	0	0	0	0	0	0	0	0	0	0	0
Frome	10	95	68	2	2	4	21	0	13	0	0
Glastonbury	0	3	0	0	0	0	5	0	7	0	0
Highbridge	29	55	3574	0	0	0	0	0	0	0	0
Ilminster	0	0	0	0	0	0	0	0	0	0	0
Midsomer Norton	0	0	0	1	0	0	0	0	0	0	0
Minehead	0*	0	0	0	0	0	1	0	1	0	0
Portishead	0	0	0	0	0	0	0	0	0	0	0
Radstock	0	0	0	0	0	0	0	0	0	0	0
Shepton Mallet	0	19	15	0	0	0	4	0	2	0	0
Street	1	30	15	0	0	1	7	0	10	1	0
Taunton	28	202	156	6	7	5	9	3	11	0	0
Watchet	0	0	0	0	0	0	0	0	0	0	0
Wellington	0	2	1	1	4	3	2	1	6	0	0
Wells	0	0	0	0	0	0	0	0	0	0	0
Weston-super-Mare	6	175	197	3	0	31	284	5	131	0	0
Wiveliscombe	0	0	0	1	0	0	0	0	0	0	0
Yeovil	5	46	7	0	3	3	57	5	14	0	0
RURAL.											
Axbridge	0	0	8	7	2	1	13	1	15	0	0
Bath	1	0	0	2	0	0	4	1	0	0	0
Bridgwater	2	8	3	7	1	0	11	4	8	0	0
Chard	0	0	0	0	0	0	0	0	0	0	0
Clutton	1	0	2	1	6	3	3	0	0	0	0
Dulverton	0	0	0	3	0	0	0	0	0	0	0
Frome	0	0	0	0	0	0	0	0	0	0	0
Keynsham	2	0	3	1	7	4	158	3	56	0	0
Langport	13	8	9	0	3	7	92	4	76	0	0
Long Ashton	0	0	0	0	0	0	0	0	0	0	0
Shepton Mallet	7	14	11	8	1	0	2	0	0	0	0
Taunton	9	47	29	12	1	8	22	3	44	0	0
Wellington	0	0	0	0	0	1	0	0	0	0	0
Wells	11	1	10	3	0	0	2	0	1	0	0
Williton	0	0	0	9	0	0	0	0	0	0	0
Wincanton	0	0	0	1	0	0	1	6	0	0	0
Yeovil	5	27	55	0	0	0	22	0	8	0	0

\*13 hams condemned.

†130 Picnic hams.



TABLE XXX.  
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	4	4	59	63	Axbridge	929	89	23	112
Burnham	18	4	8	12	Bath	157	54	14	68
Chard	12	4	8	12	Bridgwater	684	167	6	173
Clevedon	20	3	9	12	Chard	519	51	2	53
Crewkerne	10	10	2	12	Clutton	415	96	7	103
Frome	16	17	13	30	Dulverton	135	135	0	135
Glastonbury	65	9	7	16	Frome	324	65	0	65
Highbridge	11	0	2	2	Keynsham	114	24	12	36
Ilminster	17	7	2	9	Langport	427	112	1	113
Midsomer Norton	36	9	8	17	Long Ashton	406	47	25	72
Minehead	5	8	3	11	Shepton Mallet	374	31	1	32
Portishead	14	9	6	15	Taunton	408	22	46	68
Radstock	9	8	8	16	Wellington	185	35	0	35
Shepton Mallet	35	7	4	11	Wells	530	147	6	153
Street	26	11	3	14	Williton	300	45	4	49
Taunton	4	22	29	51	Wincanton	511	19	27	46
Watchet	3	0	5	5	Yeovil	416	35	7	42
Wellington	62	17	8	25					
Wells	0	0	5	5					
Weston-super-Mare	6	4	71	75					
Wiveliscombe	2	2	0	2					
Yeovil	4	1	23	24					
					Total	6,834	1,174	181	1,355
Total	379	156	283	439	County Total	7,213	1,330	464	1,794



B. **Milk Supply.** Table XXX 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 last year's Report. Considerable improvements are being effected as the result of the working of the Order, but only very slowly. The educational work also goes on and is making itself felt and this is resulting in much higher standards. During the year 50 Clean Milk Demonstrations were given at farms in various parts of the County. Another Clean Milk Competition, divided into several classes, was held in 1927—28, with considerable influence on clean milk production.

During the year a course of 7 lectures and practical demonstrations in connections with the supervision and control of milk was given in the County at various centres. Three were given by the staff of the Cannington Institute, the other four by myself. They were well attended and were considered by those present to be very helpful.

No steps were taken during the year to provide for veterinary inspection of cows, but a number of animals were inspected in connection with herds from which tubercle bacilli were found in the milk.

During the year 250 samples of mixed milk, collected at the cowsheds, were examined for tubercle bacilli: of these 20 must be excluded as useless, the guineapigs dying too early for an opinion to be given. Of the remaining 230, virulent tubercle bacilli were found in 5, a percentage of 2.18, or almost identical with the percentage of 2.2 for 215 samples collected the previous year. This is a much lower percentage than is usually reported, (6 to 10 per cent.) from samples taken in large towns as the milk arrives.

In addition to these cases reports on milk derived from Somerset but found to be tuberculous by outside authorities, have been received in 3 cases, one being from Bristol and two from London. In connection with these 8 cases, five cows with tuberculosis of the udder were detected during the subsequent examinations and slaughtered under the Tuberculosis Order. In the 3 other cases, on two farms cows with advanced tuberculosis were found and slaughtered under the Tuberculosis Order and were probably the source of the tubercle bacilli, although no tuberculosis of the udder was found; in the third case the affected animal could not be traced.

Tuberculosis in cattle is mainly being dealt with under the Tuberculosis Order, 1925. This Order aims at eliminating the most dangerous types of tuberculous bovines. It should get rid of cows suffering from tuberculous udders. As worked during the year it was doing little more than eliminate advanced cases of tuberculosis, many of which are only notified a short stage before their passage to the knackers and when all the harm they are likely to do as regards infecting the rest of the herd has been done. Very few primary cases of udder tuberculosis are being detected.

The figures for the 593 cases reported to the end of 1927 are :—

Classed as "advanced" tuberculosis .....	331
Classed as "not-advanced" tuberculosis .....	241
Classed as udder tuberculosis (entirely or mainly) .....	21

*Graded Milks.* The number of producers supplying graded milks is slowly increasing. The following shows the figures at the end of the years referred to.

	1924.	1925.	1926.	1927.
Certified Milk .....	1	4	3	6
Grade A (tuberculin tested).....	1	5	7	9
Grade A. ....	2	4	6	11



C. **Administration of the Sale of Foods and Drugs Acts.** During the year 1,106 samples were examined. Of these, 26 were submitted by private individuals and firms, and 13 were "Appeal to cow" samples. The following Table shows the nature of the 1,067 samples submitted by the police, excluding the 13 "appeal to cow" samples.

TABLE XXXI.

Article.	Number examined.	Number genuine.	Number suspicious.	Number adulterated.	Per cent. adulterated.
Dairy Products —Milk	519	474	12	33	6.4
Cream	12	12	0	0	0
Cheese	12	12	0	0	0
Butter	57	54	0	3	5.3
Condensed Milk	19	19	0	0	0
Dried Milk	14	14	0	0	0
Edible Fats	25	25	0	0	0
Cereals	26	26	0	0	0
Meat and Fish Products	36	36	0	0	0
Tea, Coffee, Cocoa	26	26	0	0	0
Condiments	31	31	0	0	0
Saccharine Products	24	24	0	0	0
Miscellaneous Groceries	82	80	0	2	2.5
Beer, Spirits and Wine	100	99	0	1	1.0
Drugs	59	59	0	0	0
Imported Apples	25	25	0	0	0
Total	1,067	1,016	12	39	3.6

The samples adulterated, as shown in the Table, were mostly milk, the adulteration of other products being very few. 33 milk samples were reported as adulterated. No legal proceedings were taken in 19, four were dismissed, while in the remaining 10 convictions were obtained. The legal position as regards chemical milk adulteration remains extremely unsatisfactory.

TABLE XXXII.

The number of samples analysed and the number adulterated during the past 7 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	1,142	37	3.5
"	1926	1,044	29	2.8
"	1927	1,067	39	3.6
England and Wales	1926	120,617	7,044	5.8



**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 7,810 samples have been examined (excluding all food and drug samples) as follows :—

Drinking Water—				
Bacteriological examinations	.....	.....	.....	685
Chemical analysis	.....	.....	.....	22
Sewage, sewage effluents, rivers and streams	.....	.....	.....	53
Swabs for diphtheria bacilli	.....	.....	.....	3190
Sputum for tubercle bacilli	.....	.....	.....	1795
Blood for typhoid, paratyphoid, etc.	.....	.....	.....	157
Hairs and skin for ringworm	.....	.....	.....	527
Specimens for Venereal Disease	.....	.....	.....	684
Urine for tubercle bacilli, B. coli, sugar, albumin, casts, etc.	.....	.....	.....	122
Faeces for typhoid and dysentery	.....	.....	.....	51
Milk for tubercle bacilli	.....	.....	.....	295
Milk for bacteriological examination (general)	.....	.....	.....	68
Milk Grade A, Grade A (T.T.), etc.	.....	.....	.....	63
Cerebro-spinal fluid and Post-nasal swabs	.....	.....	.....	14
Other specimens	.....	.....	.....	84
Total				<hr/> 7810 <hr/>

Of the 3,190 swabs examined, 467 showed the presence of diphtheria bacilli ; of the 1,795 specimens of sputum, 433 contained tubercle bacilli ; of the 157 specimens of blood, 46 gave a positive Widal reaction ; of the 527 specimens of hair, 236 contained ringworm fungi ; and of the 684 specimens for venereal disease, 79 contained gonococci.



TABLE A.

## Causes of, and Ages at Death during the Year 1927.

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.
Enteric Fever	8	0	0	0	0	1	4	3	0
Small-pox	0	0	0	0	0	0	0	0	0
Measles	4	0	3	1	0	0	0	0	0
Scarlet Fever	6	0	2	1	2	1	0	0	0
Whooping Cough	10	5	3	2	0	0	0	0	0
Diphtheria and Croup	13	0	3	1	6	0	3	0	0
Influenza	375	8	9	4	1	7	37	97	212
Encephalitis Lethargica	13	0	0	0	1	0	7	1	4
Meningococcal Meningitis	5	0	0	1	2	1	1	0	0
Tuberculosis of respiratory system	235	0	0	0	7	49	103	64	12
Other Tuberculous Diseases	52	4	5	4	4	10	14	11	0
Cancer, Malignant Disease	600	0	0	0	2	5	31	247	315
Rheumatic Fever	7	0	0	0	0	3	1	3	0
Diabetes	69	0	0	0	3	2	3	22	39
Cerebral Haemorrhage, etc.	319	0	0	0	0	0	5	60	254
Heart Diseases	846	0	0	0	6	9	37	214	580
Arterio-sclerosis	205	0	0	0	0	0	0	36	169
Bronchitis	310	12	2	0	0	0	7	21	268
Pneumonia (all forms)	219	34	12	8	4	8	22	51	80
Other Respiratory Diseases	63	1	0	0	2	2	5	20	33
Ulcer of Stomach or Duodenum	39	0	0	0	0	2	4	24	9
Diarrhoea, etc.	36	19	3	0	0	0	3	2	9
Appendicitis and Typhilitis	32	0	0	1	4	1	9	10	7
Cirrhosis of Liver	23	0	0	0	0	0	2	15	6
Acute and Chronic Nephritis	156	0	1	0	3	4	14	45	89
Puerperal Sepsis	12	0	0	0	0	1	11	0	0
Other Accidents and Diseases of Pregnancy and Parturition	11	0	0	0	0	0	11	0	0
Congenital Debility and Malformation, including Premature Birth	132	124	1	0	3	1	1	2	0
Suicides	56	0	0	0	0	6	14	22	14
Other Deaths from Violence	145	9	5	10	9	15	26	34	37
Other Defined Diseases	990	49	8	14	15	16	65	170	653
Diseases ill-defined or unknown	10	0	2	0	0	0	3	1	4
	5001	265	59	47	74	144	443	1175	2794



TABLE B.

## Causes of Death at all Ages in each District during the Year 1927.

## RURAL DISTRICTS.

## URBAN DISTRICTS.

CAUSES OF DEATH.	AXBRIDGE.	BATH.	BRIDGWATER.	CHARD.	CLUTTON.	DULVERTON.	FROME.	KEYNSHAM.	LANGPORT.	LONG ASHTON.	SHEPTON MALLET.	TAUNTON.	WELLINGTON.	WELLS.	WILLITON.	WINCANTON.	YEovil.	TOTAL RURAL DISTRICTS	BRIDGWATER.	BURNHAM.	CHARD.	CLEVEDON.	CREWKERNE.	FROME.	GLASTONBURY.	HIGHBRIDGE.	ILMINSTER.	MIDSOMER NORTON.	MINEHEAD.	PORTISHEAD.	RADSTOCK.	SHEPTON MALLET.	STREET.	TAUNTON.	WATCHET.	WELLINGTON.	WELLS.	WESTON-SUPER-MARE.	WIVELISCOMBE.	YEovil.	TOTAL URBAN DISTRICTS	COUNTY TOTAL.			
Enteric Fever	1	0	0	0	0	0	0	0	0	1	1	0	0	3	0	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	8		
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	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	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	0	0	2	0	1	0	1	0	1	0	0	0	0	1	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	
Whooping Cough	1	0	0	0	0	0	1	2	0	1	0	0	0	0	0	0	0	2	0	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	
Diphtheria	2	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Influenza	17	11	22	15	9	4	9	9	17	17	8	27	7	13	8	19	25	237	17	1	3	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Encephalitis Lethargica	0	0	1	0	0	0	1	0	0	0	0	2	0	0	1	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	0	0	0	0	
Meningococcal Meningitis	0	0	0	0	1	0	0	0	0	0	1	0	1	1	0	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	0	0	
Tuberculosis of respiratory system	15	6	9	4	5	0	5	7	7	16	4	9	6	2	9	9	14	127	15	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Other Tuberculous Diseases	3	3	2	2	1	1	2	1	2	4	0	0	0	0	1	4	2	30	4	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	
Cancer, Malignant Disease	34	22	35	26	5	16	13	20	28	11	18	5	18	16	28	29	34	14	12	10	8	8	11	8	7	2	7	9	9	7	5	8	39	310	12	42	2	18	251	600	1	22	52		
Rheumatic Fever	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Diabetes	3	2	1	2	3	0	0	1	3	2	1	3	1	1	2	5	1	31	5	0	2	3	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cerebral Haemorrhage, etc.	23	5	20	13	4	4	6	13	12	17	9	17	8	6	10	10	17	194	10	6	3	7	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Heart Disease	56	27	33	25	42	9	19	29	17	20	21	36	11	30	32	24	42	473	39	13	8	16	15	28	16	3	3	13	19	6	2	9	12	50	311	12	54	4	37	373	846	1	87	205	
Arterio-sclerosis	15	16	9	8	12	2	4	3	4	7	5	8	2	6	6	5	6	118	19	4	0	10	1	8	5	1	0	3	9	2	0	1	0	7	2	1	3	8	2	1	87	205	1	87	205
Bronchitis	9	18	24	9	18	4	9	5	2	7	5	13	4	3	12	7	13	162	20	2	5	6	4	5	4	3	2	5	2	3	5	6	4	36	3	9	7	9	2	6	148	310	1	97	219
Pneumonia (all forms)	16	11	12	2	10	1	12	1	8	11	5	6	3	6	5	9	4	122	9	4	0	2	1	6	2	3	4	1	1	2	2	4	2	17	1	2	1	22	4	5	97	219	1	28	63
Other Respiratory Diseases	4	0	0	1	4	0	2	2	4	3	1	2	1	3	3	2	3	35	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	8	1	3	0	4	0	2	28	63		
Ulcer of Stomach or Duodenum	1	1	2	0	3	0	0	0	0	0	2	2	0	1	4	1	1	19	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	4	0	2	0	4	1	0	20	39		
Diarrhoea, etc. (under 2 years)	1	2	0	0	1	0	0	1	0	0	3	1	0	1	0	0	0	12	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Appendicitis and Typhilitis	5	3	1	1	3	1	1	0	1	3	1	1	0	1	1	0	0	23	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
Cirrhosis of Liver	3	0	0	0	0	0	2	0	0	1	0	0	0	2	0	3	1	12	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Acute and Chronic Nephritis	9	9	6	2	2	3	4	3	8	3	7	2	2	3	6	11	6	86	5	4	0	9	0	7	2	1	1	1	1	1	1	0	2	8	1	0	4	19	0	4	70	156	1	11	23
Puerperal Sepsis	1	1	1	0	2	0	0	0	0	1	0	1	0	0	0	0	1	9	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
Other accidents and diseases of pregnancy and parturition	2	1	1	0	0	0	1	1	0	2	0	0	0	0	1	1	1	11	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
Congenital Debility and malformation, premature birth	7	1	6	7	7	6	3	2	0	6	6	7	8	5	4	4	9	88	4	0	1	0	3	0	2	0	0	0	0	0	0	0	0	0	7	0	2	4	6	0	1	44	132		
Suicides	4	1	3	1	2	1	3	0	1	3	1	4	3	2	1	2	0	32	3	0	1	0	0	2	0	0	1	0	0	0	0	0	0	2	0	3	0	4	1	5	24	56			
Other deaths from violence	10	5	8	6	8	0	5	7	5	6	4	9	4	4	2	4	6	93	3	0	1	3	0	2	2	1	2	5	3	1	0	0	2	7	0	1	3	8	0	8	52	145			
Other defined diseases	68	25	61	32	34	4	31	16	39	50	28	34	13	17	30	43	60	585	41	9	7	27	5	39	5	3	2	18	7	11	10	10	13	77	7	24	10	61	1	32	419	1004			
Causes ill-defined or unknown	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	6	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
All causes	311	172	261	156	199	45	139	116	151	210	125	202	79	131	155	193	246	2891	216	66	43	101	49	137	58	30	23	70	71	46	35	57	57	339	27	93	72	320	20	180	2110	5001	1	4	10



TABLE 1.

RESULTS OF TREATMENT

PATIENTS										RESULTS									
No.	Age	Sex	Initial	Final	Initial	Final	Initial	Final	Initial	No.	Age	Sex	Initial	Final	Initial	Final	Initial	Final	Initial
1	25	M	100	100	100	100	100	100	100	11	35	F	100	100	100	100	100	100	100
2	30	F	100	100	100	100	100	100	100	12	40	M	100	100	100	100	100	100	100
3	35	M	100	100	100	100	100	100	100	13	45	F	100	100	100	100	100	100	100
4	40	F	100	100	100	100	100	100	100	14	50	M	100	100	100	100	100	100	100
5	45	M	100	100	100	100	100	100	100	15	55	F	100	100	100	100	100	100	100
6	50	F	100	100	100	100	100	100	100	16	60	M	100	100	100	100	100	100	100
7	55	M	100	100	100	100	100	100	100	17	65	F	100	100	100	100	100	100	100
8	60	F	100	100	100	100	100	100	100	18	70	M	100	100	100	100	100	100	100
9	65	M	100	100	100	100	100	100	100	19	75	F	100	100	100	100	100	100	100
10	70	F	100	100	100	100	100	100	100	20	80	M	100	100	100	100	100	100	100

