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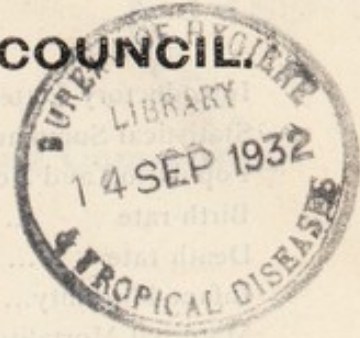
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1932.

HERTFORDSHIRE COUNTY COUNCIL



THIRTY-THIRD ANNUAL REPORT ON THE

PUBLIC HEALTH

OF

HERTFORDSHIRE

BEING THAT FOR THE YEAR

1931

BY

H. HYSLOP THOMSON

M.D.; D.P.H.

County Medical Officer of Health.

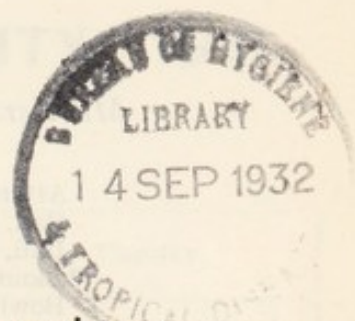
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THE HEALTH OF THE COUNTY
Public Health and Housing Committee

**To the Chairman and Members of
the Public Health and Housing Committee.**



LADIES AND GENTLEMEN,

I have the honour of presenting to you the Annual Report on the Public Health of the County during the year 1931, being the thirty-third you have received.

The statistics for the year indicate that the general standard of health in the County during 1931 has been satisfactory and that with the exception of influenza the incidence of epidemic disease has been less marked than during 1930.

I am, Ladies and Gentlemen,

Your obedient servant,

H. HYSLOP THOMSON,

County Medical Officer of Health.

HERTFORD.

June, 1932.

Members of the Public Health and Housing Committee.

Chairman : Fern, H. E.

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Fordham, Mrs. P.	*Stacey, W.
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Goulding, A.	Wiggs, A. W.

Those marked * are members of the Sub-Committee as to County Medical Officer of Health's Reports.

THE HEALTH OF THE COUNTY, 1931.

TABLE I.
STATISTICAL SUMMARY.
(For each District see Table at end of Report.)

	URBAN.			RURAL.			COUNTY.		
	1931. <i>a</i>	1930. <i>b</i>	10 years † <i>c</i>	1931. <i>d</i>	1930. <i>e</i>	10 years † <i>f</i>	1931. <i>g</i>	1930. <i>h</i>	10 years † <i>i</i>
I. Population	281,000	268,700	212,118	120,900	115,400	109,049	401,900	384,100	331,857
II. Birth-rate ...	14·6	15·4	18·0	14·7	15·2	18·2	14·6	15·3	18·1
III. Death-rate	10·4	10·3	11·6	10·2	9·9	11·6	10·3	10·2	11·6
IV. Infant Mor- tality *	51	44	67	36	38	58	46	42	64
V. Epidemic Death-rate	·12	·20	—	·19	·16	—	·11	·19	—
VI. Phthisis Death-rate	·5	·5	·8	·3	·5	·7	·4	·5	·7
VII. Cancer Death-rate	1·6	1·4	1·2	1·4	1·4	1·2	1·5	1·4	1·2

† 1911-1920.

* Per 1,000 Births.

The above figures give a summary of the vital statistics for the County during 1931. The estimated population for the year was 401,900, compared with the census population of 401,159. A study of the above table shows that there is little change in the general death-rate, which was 10·3, compared with 10·2 for the previous year. There is a distinct fall in the birth-rate, which was 14·6, compared with 15·3 for 1930 and 14·8 for 1929.

There is a slight increase in the infant mortality, which was 46, compared with 42 for 1930. The previous lowest infant mortality attained was 42·2 in 1924. There is a fall in the maternal mortality, which was 3·8, compared with 4·5 last year. There is a further fall in the death-rate from pulmonary tuberculosis, namely, 0·48, compared with 0·55 for 1930. This is the lowest death-rate from pulmonary tuberculosis which has so far been reached and it is the first occasion on which it has been below 0·5 per 1,000. On the other hand, the death-rate from non-pulmonary tuberculosis shows an increase, being 0·11, compared with 0·08. There is a decrease in the epidemic death-rate, which was 0·11, compared with 0·19 for the previous year. The death-rate from malignant disease again shows a slight increase, 1·5 compared with 1·4 in 1930.

TABLE 2.
POPULATION AND ACREAGE.

(For each District see fly-leaf at end of Report.)

District	Acreage (land and water).	POPULATION.			
		Census 1911.	Census 1921.	Census 1931.	Estimate 1932.
Urban Districts ...	70,048	194,263	229,059	280,945	281,000
Rural Districts ...	334,472	117,058	104,136	120,214	120,900
County ...	404,520	311,321	333,195	401,159	401,900
England & Wales ...	37,339,215	36,070,492	37,885,242	39,947,931	—

The 1931 census population for the County was 401,159, and the estimated population for the year was 401,900.

The census figures for 1931 show a considerable increase of the population in certain parts of the County which have rapidly developed during the last ten years. In the rural districts of Ashwell, Buntingford, and Hadham, on the other hand, the figures show a diminished population.

TABLE 3.
BIRTH-RATE.

(For each District see fly-leaf at end of Report. For number of births, legitimate and illegitimate, in each district, see Table 6.)

	Hertfordshire.						England and Wales.
	Urban.		Rural.		County.		
	Rate.	Number.	Rate.	Number.	Rate.	Number.	
1901-10 .	23·6	—	22·6	—	22·9	—	27·2
1911-20 .	18·0	—	18·2	—	18·1	—	21·8
1930 .	15·4	4,154	15·2	1,758	15·3	5,912	16·3
1931 .	14·6	4,118	14·7	1,781	14·6	5,899	15·8

The birth-rate for 1931 shows a decrease, being 14·6, compared with 15·3, the rate for the urban districts being 14·6 and for the rural 14·7. The highest birth-rate in the urban districts was 21·8 (Welwyn Garden City), which was also the highest last year, and the lowest 10·1 (Harpenden). In the rural districts the highest birth-rate was 19·8 (Welwyn), which was also the highest last year, and the lowest 11·3 (Ware).

In the following districts the death-rate has exceeded the birth-rate during the year :—the urban districts of Harpenden, Royston, Sawbridgeworth, Stevenage, and Tring; and the rural districts of Ashwell, Buntingford, and Hadham.

TABLE 4.

DEATH-RATE.

(For each district see fly-leaf at end of Report. For causes see Tables 6 and 7.)

	Hertfordshire.						England and Wales.
	Urban.		Rural		County.		
	Rate.	Number.	Rate.	Number.	Rate.	Number.	
1901-10 .	11.8	—	12.0	—	11.7	—	15.4
1911-20 .	11.6	—	11.6	—	11.6	—	14.3
1930 .	10.3	2,771	9.9	1,151	10.2	3,922	11.4
1931 .	10.4	2,937	10.2	1,236	10.3	4,173	—

The death-rate shows a slight increase for 1931, being 10.3, compared with 10.2 for the previous year. The death-rate was higher in the urban districts, 10.4 compared with 10.2 for the rural districts. In the urban districts the highest death-rate was 16.3 (Royston) and the lowest 5.1 (Welwyn Garden City), which was the lowest last year. In the rural districts the highest death-rate was 17.2 (Ashwell) and the lowest 8.2 (Hemel Hempstead).

The slight rise in the general death-rate is due to some increase in the number of deaths from certain diseases such as malignant diseases, influenza, pneumonia, and cardiac disease; reference is made elsewhere to the increase in the number of deaths from malignant disease and in infants from prematurity and congenital debility.

TABLE 5.

INFANT-MORTALITY.

	Hertfordshire.						England. and Wales.
	Urban.		Rural.		County.		
	Rate.	Number.	Rate.	Number.	Rate.	Number.	
1901-10 .	90	—	83	—	88	—	127
1911-20 .	67	—	58	—	64	—	100
1930 .	44	182	38	66	42	248	60
1931 .	51	209	36	65	46	274	—

The infant-mortality, which is the number of deaths under twelve months per 1,000 births, shows a slight rise from 42 to 46, the actual number of deaths being 274, compared with 248 for 1930. This increase affects the urban districts only, in which the infant-mortality is 51, compared with 44 last year; on the other hand, the infant-mortality has fallen in the rural districts, the rate being 36, compared with 38 for 1930. The lowest infant-mortality reached in the urban districts was 5 (Welwyn Garden City), an exceptionally low figure, and the highest was 100 (Ware). In the rural districts the lowest infant-mortality was *nil* (Ashwell) and 16 (Buntingford), and the highest was 74 (Barnet). The increase in infant-mortality during the year is chiefly due to an increase in the number of deaths from congenital debility and premature birth, the number of deaths from this cause being 170, compared with 141 last year. There was also an increase in the number of deaths from whooping-cough and pneumonia, but fewer deaths from measles and bronchitis.

The extent to which congenital debility and premature birth are responsible for infant-mortality is indicated by the fact that of the total number of deaths under one year 62 per cent were due to this cause, and it is obvious that to secure any further definite decrease in the infant death-rate the conditions which are responsible for congenital debility and premature birth must be studied and eliminated as far as is practicable.

There has been an increase in the mortality amongst illegitimate infants, which was 78.2 during 1931, compared with 51.0 during 1930. The death-rate in the urban districts was 98.7, compared with 29.4 in the rural districts. It will be observed that while the death-rate of illegitimate infants is considerably higher than that of legitimate infants in urban districts, the converse is the case in rural districts.

There has been a considerable decrease in the number of deaths from diarrhoea under the age of twelve months, the figure being 10, compared with 22 last year. The deaths from tuberculosis have increased, the number being 4, as against 1 last year; of the four deaths there was only one of tuberculosis of the respiratory system.

For the prevention of epidemic diarrhoea in infants and young children efforts must be continued in the following directions: (1) The encouragement of the breast-feeding of infants, (2) the provision of a clean milk supply, (3) the attaining of a satisfactory standard of domiciliary cleanliness, (4) the abolition of refuse and flies, and (5) the protection of all milk in the home from contamination by dust and flies. The main precaution is cleanliness in regard to food utensils, food, and milk.

TABLE 6.
BIRTHS, DEATHS, AND INFANT DEATHS IN 1931.

Districts.	Popula- tion.	Deaths at all ages.	Births.			Number of infant deaths in first year.			Infant death- rates per 1,000 births.
			Legi- timate	Illegi- timate	Total.	Legi- timate	Illegi- timate	Total.	
<i>Urban.</i>									
1 Baldock	3,161	43	52	—	52	1	—	1	19·23
2 Barnet	14,510	177	184	7	191	12	—	12	62·82
3 Berkhamstead	8,431	85	96	3	99	—	1	1	10·10
4 Bishop's Stortford	9,735	102	127	6	133	9	—	9	67·66
5 Bushey	11,460	102	156	11	161	4	1	5	31·05
6 Cheshunt	14,720	167	214	10	224	12	2	14	62·50
7 Chorleywood	3,192	27	36	2	38	1	—	1	26·31
8 East Barnet Valley	18,600	193	278	7	285	21	2	23	80·70
9 Harpenden	8,349	92	83	2	85	7	—	7	82·35
10 Hemel Hempstead	15,120	156	208	9	217	9	—	9	41·47
11 Hertford	11,610	131	170	11	181	6	—	6	33·14
12 Hitchin	14,350	138	204	10	214	11	—	11	51·40
13 Hoddesdon	6,759	68	116	6	122	6	—	6	49·18
14 Letchworth	14,430	105	210	7	217	7	2	9	41·47
15 Rickmansworth	10,740	109	187	2	189	8	1	9	47·61
16 Royston	3,793	62	46	1	47	2	1	3	63·82
17 St. Albans	28,460	343	360	21	381	18	2	20	52·49
18 Sawbridgeworth	2,565	33	28	1	29	2	—	2	68·96
19 Stevenage	5,515	84	79	3	82	4	—	4	48·78
20 Tring	4,329	65	62	2	64	3	1	4	62·50
21 Ware	6,070	86	89	1	90	9	—	9	100·00
22 Watford	56,500	525	793	36	829	40	3	43	51·86
23 Welwyn Gdn. City	8,601	44	184	4	188	1	—	1	5·31
Total Urban	281,000	2,937	3,956	162	4,118	193	16	209	50·75
<i>Rural.</i>									
1 Ashwell	3,488	60	47	1	48	—	—	—	—
2 Barnet	6,312	57	121	1	122	9	—	9	73·77
3 Berkhamstead	5,252	58	78	3	81	4	—	4	49·38
4 Buntingford	4,582	66	60	4	64	1	—	1	15·62
5 Hadham	5,426	80	59	3	62	4	—	4	64·51
6 Hatfield	11,260	106	195	9	204	4	1	5	24·50
7 Hemel Hempstead	8,276	68	126	4	130	3	—	3	23·07
8 Hertford	7,581	83	92	4	96	2	—	2	20·83
9 Hitchin	14,590	151	201	10	211	6	—	6	28·43
10 St. Albans	19,630	180	296	12	308	12	1	13	42·20
11 Ware	12,290	140	132	8	140	6	—	6	42·85
12 Watford	18,530	155	236	6	242	10	—	10	41·32
13 Welwyn	3,683	32	70	3	73	2	—	2	27·39
Total Rural	120,900	1,236	1,713	68	1,781	63	2	65	36·49
„ Urban	281,000	2,937	3,956	162	4,118	193	16	209	50·75
Total County	401,900	4,173	5,669	230	5,899	256	18	274	46·44

Death-rate of Legitimate and Illegitimate Infants per 1,000 Legitimate and Illegitimate Births is:—

	<i>Legitimate.</i>	<i>Illegitimate.</i>
Urban Districts	48·78	Urban Districts 98·76
Rural	36·77	Rural 29·41
County	45·15	County 78·26

MATERNAL MORTALITY.

NUMBER OF DEATHS OF MOTHERS PER 1,000 BIRTHS.

The number of maternal deaths during the year was 23, compared with 27 last year and 24 in 1929. The maternal mortality was 3·8, compared with 4·5 last year, and 4·2 in 1929. Of the 23 maternal deaths 11 were due to puerperal sepsis and 12 were due to other accidents and diseases of pregnancy and parturition, compared with 13 and 14 respectively for last year.

There were 25 cases of puerperal fever notified during the year, 20 from urban districts and five from rural districts. The largest number of cases notified from one district was six, but there were no deaths reported from this district. Similarly, in the case of the next highest figure of notifications, namely, five, there were no deaths from sepsis. On the other hand, in some districts the notifications are fewer than the deaths.

There were 66 notifications of puerperal pyrexia received during the year.

Sixteen of the 23 maternal deaths occurred in urban districts and seven in rural districts. Of the 11 deaths due to puerperal sepsis six occurred in urban districts and five in rural districts. The following are the districts in which deaths from sepsis occurred: Berkhamstead Urban (1), Hitchin Urban (1), Letchworth Urban (3), and Stevenage Urban (1), Berkhamstead Rural (2), Hatfield Rural (1), and Hertford Rural (2).

The twelve deaths from causes other than puerperal sepsis occurred in the following districts: Bishop's Stortford Urban (1), Bushey Urban (1), Hitchin Urban (1), Letchworth Urban (1), St. Albans City Urban (2), Sawbridgeworth Urban (1), Stevenage Urban (1), Watford Borough (1), Welwyn Garden City Urban (1), Hatfield Rural (1), and Hemel Hempstead Rural (1). Of the 12 deaths due to causes other than sepsis 10 occurred in urban districts and only two in rural districts, a very different ratio to that in deaths from sepsis, which was six to five.

The figures given above show that there has been a decrease in the maternal mortality during the year, and that the number of maternal deaths has decreased by four. The number of deaths from puerperal sepsis in rural districts has remained unchanged. During the year investigations have been made regarding the causes of maternal deaths, the results of which have emphasized the importance of the treatment of pre-natal

septic foci, the protection of the mother from contact with carriers of virulent organisms, and the early diagnosis and efficient treatment of associated toxic conditions. The early detection of toxæmias associated with pregnancy and their appropriate treatment can only be secured by regular ante-natal care and supervision. It is satisfactory to note from the reports of the Medical Officers of the ante-natal clinics that the number of expectant mothers attending has increased.

The special measures which are adopted in the County include the services of an obstetric specialist in complicated cases, nursing services, hospital treatment, special sera, and help towards obtaining sterilized outfits in special cases. The provision for the hospital treatment of cases of puerperal sepsis include arrangements with several of the voluntary hospitals in the County.

TABLE 7.

CANCER OR MALIGNANT DISEASE.

(Including carcinoma and rodent ulcer. For each district see fly-leaf at end of Report.)

	Hertfordshire.						England and Wales.
	Urban.		Rural		County.		
	Rate.	Number.	Rate	Number.	Rate.	Number.	
1901-10 .	0.9	—	0.9	—	0.9	—	(1906-10) 0.9
1911-20 .	1.2	—	1.2	—	1.2	—	1.2
1930 .	1.4	402	1.4	171	1.4	573	1.4
1931 .	1.6	451	1.4	177	1.5	628	—

The total number of deaths from malignant disease during the year was 628, compared with 573 for the previous year, which gives a death-rate of 1.5, compared with 1.4. Of the total number of deaths 451 were in urban districts and 177 in rural districts, and 277 were males and 351 were females.

A study of the sex incidence of the disease shows that the increase in deaths recorded above has been chiefly in females; thus, while the increase in males is only five, in females it is ten times that number, namely, 50. Of the total number of deaths 338 or 53.8 per cent occurred in persons over the age of 65.

The ratio of female to male deaths varies considerably in different age groups. In the 35-45 age group the deaths in urban districts are, males nine and females 17, whereas in the rural districts the deaths are males four and females two; in the next age group, 45-55, the deaths in females considerably exceed the deaths in males in both urban and rural districts. In the 55-65 age group the characteristics of the first group are maintained, namely, the preponderance of deaths in females in urban districts and in males in rural districts. In the 65-75 group there is little difference between the sexes in the two areas, but in the last group, over 75, the female deaths again predominate in urban districts.

TABLE 8.

TUBERCULOSIS.

CRUDE DEATH-RATES FROM PULMONARY TUBERCULOSIS.

(For each District see Fly-leaf at end of Report.)

	Hertfordshire.						England and Wales.
	Urban.		Rural.		County.		
	Rate.	Number.	Rate.	Number.	Rate.	Number.	
1901-10 .	.8	—	.7	—	.8	—	(1906-10) 1.3
1911-20 .	.8	—	.7	—	.7	—	1.0
1930 .	.57	155	.51	60	.55	215	.73
1931 .	.55	155	.33	40	.48	195	—

TABLE 9.

CRUDE DEATH-RATES FROM NON-PULMONARY TUBERCULOSIS

	Hertfordshire.		
	Urban.	Rural.	County.
1925 . . . . .	.15	.13	.14
1926 . . . . .	.18	.15	.17
1927 . . . . .	.14	.17	.15
1928 . . . . .	.15	.10	.13
1929 . . . . .	.16	.09	.14
1930 . . . . .	.10	.05	.08
1931 . . . . .	.11	.12	.11
Number, 1931	32	15	47

TABLE IO.

NEW CASES OF TUBERCULOSIS AND MORTALITY DURING 1931.

Age Periods.	New Cases.				Age Periods.	Deaths.			
	Pulmonary.		Non-Pulmonary.			Pulmonary.		Non-Pulmonary.	
	Male.	Female.	Male.	Female.		Male.	Female.	Male.	Female.
0	—	—	5	2	0	—	1	3	—
1	1	—	19	12	1	—	—	1	2
5	21	15	12	10	2	—	—	2	7
10	9	4	10	4	5	3	3	6	4
15	19	24	9	7	15	19	14	4	2
20	31	36	8	6	25	27	27	3	2
25	60	53	9	9	35	24	17	4	1
35	48	23	5	5	45	18	14	1	—
45	29	21	6	5	55	10	8	1	1
55	21	15	—	3	65	5	4	1	2
65 & Upwards	5	9	—	2	75	1	—	—	—
Total.	244	200	83	65	Total.	107	88	26	21

The number of cases of tuberculosis notified during the year is slightly less than last year, being 592, compared with 601.

The number of deaths from pulmonary tuberculosis during the year was 195, compared with 215 for the previous year, and the number of deaths from non-pulmonary tuberculosis has increased from 33 to 47. The death-rates from both forms of the disease are 0·48 and 0·11 respectively, compared with 0·55 and 0·08 for 1930.

The comparative death-rates from pulmonary and non-pulmonary tuberculosis during the past nine years are given in the following table :—

TABLE II.

COMPARATIVE DEATH-RATES FROM TUBERCULOSIS.

	1931.	1930.	1929.	1928.	1927.	1926.	1925.	1924.	1923.
Pulmonary Tuberculosis	0·48	0·55	0·58	0·51	0·67	0·65	0·69	0·61	0·59
Non-Pulmonary Tuberculosis	0·11	0·08	0·14	0·13	0·15	0·17	0·14	0·13	0·14

Of the deaths from pulmonary tuberculosis, 155 occurred in urban districts, the same as last year, and 40 in rural districts, compared with 60 last year; of the total number 107 were males and 88 were females. The largest number of deaths namely, 54, occurred in the 25-35 age group, in which the number of deaths was equal in both sexes, but in all other age groups the deaths amongst males predominated. In the 15-25 age group the number of deaths was 33, compared with 41 for 1930, and this fall is due entirely to a decrease in the female deaths, the number of which was 14, compared with 26, whereas the deaths in males show an increase from 15 to 19. It is satisfactory to note that for the first time in some years there has been a considerable fall in the female deaths in this age group.

Of the deaths from non-pulmonary tuberculosis, 32 occurred in urban districts and 15 in rural districts and 26 were males and 21 females. The increase in the deaths from non-pulmonary tuberculosis was greater in the rural than in the urban districts. In the rural districts the death-rate was 0.12, compared with 0.05 for the previous year, whereas the death-rate in the urban districts was 0.11, compared with 0.10 for 1930. Of the 47 deaths during the year from the non-pulmonary form of tuberculosis 18 or 38 per cent were returned as due to tuberculous meningitis. Of this number 11 were males and seven were females. The number of deaths from tuberculous meningitis in the urban districts was 12 and in the rural districts six.

Preventive Measures.—The comparatively low death-rate from pulmonary tuberculosis during the year indicates that the measures, both curative and preventive, which are being carried out are yielding definite results. The increased knowledge of the principles of hygiene and its practical application in everyday life are securing a higher standard of health and greater resistance to attack by the virus of tuberculosis. The open air and the open window are much more appreciated in relation to the maintenance of health than they were twenty or thirty years ago. In certain directions, however, increased preventive action is called for if a further reduction in the death-rate from both forms of the disease is to be secured. Although the disease is now diagnosed at a much earlier stage than it formerly was there are still too many cases which are not treated and segregated until the disease is well advanced. The examination of the sputum should be adopted as a routine measure in the case of all persons, especially young persons

who have any suspicious signs or symptoms. The routine examination of contacts of open cases of the disease is also a very necessary step to secure the early diagnosis of the disease. Lastly, the increase in the death-rate from non-pulmonary tuberculosis emphasizes the necessity for further effort to eliminate the danger of bovine infection through milk.

The prevention of pulmonary tuberculosis may be summed up in a few words—food including fats, fresh air, cleanliness, and the removal of open cases to hospital or sanatorium. The avoidance of industrial strain, especially when associated with insufficient food, is also important. In the home, cleanliness and the avoidance of overcrowding have repeatedly been emphasized as important precautionary measures.

The following steps are taken with a view to closer co-operation in preventive effort between the County Council and Local Sanitary Authorities. Information of all cases of pulmonary tuberculosis with tubercle bacilli in the sputum is sent to the District Medical Officer of Health. This supplements the information from notification and provides more accurate information regarding open cases of the disease.

Information is sent to the District Medical Officer of Health regarding the death of a patient and of removal of a patient to hospital or sanatorium so that disinfection may be carried out. The reports regarding the home conditions of patients forwarded by the health visitors and nurses contain from time to time references to insanitary conditions, structural defects, overcrowding, etc. The information thus obtained is forwarded to the District Medical Officer of Health with a request that such action may be taken as may be considered necessary.

With a view to securing the co-operation of the Medical Practitioner a special form is sent giving particulars regarding the result of examination by the Tuberculosis Officer, the result of the examination of the sputum and the treatment which has been recommended. Subsequent reports giving particulars of any special alteration in treatment are also sent.

During the year 382 home conditions forms were forwarded by the Health Visitors, from which the following particulars have been obtained.

TABLE 12.
HOME CONDITIONS.

	Good.	Indifferent.	Bad.
Insured	76·4	16·6	7·0
Uninsured	71·0	20·8	8·2
Total	73·8	18·6	7·6

NUMBER OF PERSONS PER BEDROOM.

	Two or less.	Three.	Four.	Over Four.
Insured	76·9	20·6	2·5	—
Uninsured	81·4	13·1	4·4	1·1
Total	79·1	17·0	3·4	0·5

Summary of New Work during the Year.—In the following tables particulars are given of the work carried out during the year in connection with tuberculosis, including recommendations for treatment in the case of new patients.

Number of cases examined	991
Cases treated in sanatoria	375
Cases treated in hospitals	86
Cases treated at home	222
Cases treated at dispensaries	91
Cases under observation	203
Contacts examined	230
Cases recommended milk	37
Shelters issued	16
Specimens of sputum examined	1,494
Tubercle bacilli present	513

Further particulars of the work carried out in connection with tuberculosis are given in the Annual Report on Tuberculosis for 1931.

VENEREAL DISEASES.

The number of new patients from Hertfordshire attending clinics in London during 1931 was 257, compared with 303 for 1930 and 281 for 1929. Of this number 171 were cases of venereal disease, and 86 were found not to be suffering from this disease. The total attendances for the year were 6,824, compared with 6,090 for 1930. The number of in-patient days was 937, and the number of doses of salvarsan or its substitutes given during the year was 744, compared with 371.

These figures of the work carried out during the year are to be regarded as satisfactory. They indicate that fewer new patients attended for treatment but that a larger number of attendances were made and an increased amount of treatment was given during the year.

The amount of work carried out during the year is shown in the following table :—

TABLE 13.
ANNUAL SUMMARY FOR 1931.

Hospitals.	New Patients.					Total Attendances.	In-patient days.	Salvarsan. No. of doses.
	Syp.	S.C.	Gon.	Not V.D.	Total.			
Albert Dock	—	—	—	—	—	—	—	—
Royal Northern	9	—	20	10	39	964	—	78
Hospital for Sick Children, Gt. Ormond Street	3	—	—	18	21	68	27	14
Guy's	5	—	11	10	26	626	—	97
King's College	—	—	—	—	—	6	—	—
Metropolitan	1	—	1	—	2	2	26	—
Middlesex	4	—	7	1	12	378	277	121
Miller General	—	—	—	—	—	—	—	—
Royal Free	2	—	15	11	28	525	—	15
Royal London Ophthalmic	3	—	1	—	4	80	—	17
St. George's	—	—	5	—	5	73	—	11
St. John's, Lewisham	—	—	—	—	—	—	—	—
St. Mary's	2	—	4	2	8	126	11	11
St. Paul's	3	—	6	8	17	693	50	42
St. Thomas'	9	2	11	19	41	1057	72	130
Seamen's	—	—	—	—	—	—	—	—
S. London for Women	—	—	—	—	—	—	—	—
University College	13	—	16	1	30	1619	—	115
West London	1	—	1	3	5	60	48	—
Westminster	1	—	1	1	3	124	—	16
S. Army Mothers' Hospital	—	—	7	—	7	98	291	—
Children's Medical Home	—	—	1	—	1	—	135	—
Whitechapel Clinic	2	1	3	2	8	325	—	77
Total	58	3	110	86	257	6824	937	744

The total number of pathological examinations made for private practitioners in the County during the year is 148.

The number of pathological examinations carried out for practitioners was 148, compared with 156 for the previous year, while the number of pathological examinations carried out for or at the centres in London was 1,443. Of these examinations, 14 were for spirochaetes, 838 for gonococci, 420 for Wassermann reaction, and 171 for other reasons.

BLIND PERSONS.

Under "The Blind Persons Act, 1920", the County Council prepared a scheme for promoting the welfare of blind persons ordinarily resident within their area, which came into operation on the 1st April, 1923.

A new scheme has, however, may come into force which revokes the previous scheme : it is as follows :—

Administrative Scheme.

(Submitted by the Blind Persons Act Committee to the County Council for approval on the 15th February, 1932).

Area.—The area to be covered for the purposes of this Scheme is the Administrative County of Hertford.

Date of Commencement.—The Scheme to come into operation on the first day of the month following its approval by the Minister of Health and on that day all previous schemes to be revoked.

Objects.—To provide in approved cases for :—

- (a) Children under School age.
- (b) Employment.
- (c) Home Workers.
- (d) Home Teachers.
- (e) Maintenance Grants in Homes.
- (f) Maintenance Grants in Hostels.
- (g) Assistance to unemployable or other destitute blind persons.
- (h) Registration.
- (j) General Social Welfare
- (k) Miscellaneous.

Arrangements for carrying out the various objects of the Scheme.

The County Council to avail themselves as far as they may deem necessary of the assistance of the Hertfordshire Society for the Blind, but no arrangements to be carried out under this scheme with respect to any blind persons unless such arrange-

ments shall have received the sanction of the County Council, or a Committee of the Council to whom the Council shall have delegated their powers, and to be within the financial limits fixed by the Council.

(a) *Children under School Age.*

To consider cases of infants born blind, or with sight so defective as to be unable to distinguish common objects. When considered necessary by the County Council arrangements to be made for such children to be boarded out or sent to a residential home for blinded babies. Parents to contribute according to means.

This work will be carried out direct by the County Council.

(b) *Employment.*

Provision to be made as far as the Council may deem necessary, for the employment of suitable blind persons in workshops for the blind or elsewhere, and for the payment to them of augmentation of earnings on a scale approved by the Council.

(c) *Home Workers.*

Arrangements to be made for the employment of suitable blind persons in the Home Workers' Scheme, conducted by the London Society for Teaching and Training the Blind, Swiss Cottage, or any other Society for the Blind performing similar functions approved by the Council from time to time; the general conditions of employment, including the rate of augmentation, to be subject to the approval of the Council.

(d) *Home Teachers.*

Arrangements to be made for the Home teaching and visiting of the blind, and for this purpose the Hertfordshire Society for the Blind shall appoint such Home Teachers as may be approved by the Council.

(e) *Maintenance Grants in Homes.*

The County Council to make arrangements for the maintenance of blind persons whom it may be considered desirable to send to a Home for the Blind, which is approved by the Council.

(f) *Maintenance Grants in Hostels.*

The County Council to make arrangements for the maintenance of blind persons employed in approved workshops and

resident in a hostel, approved by the Council, who, for lack of housing or for some other satisfactory reason, may require such provision.

(g) Assistance to Unemployable or other Destitute Blind Persons.

(i) In conjunction with the Public Assistance Committee, to consider the cases of unemployable or other destitute blind persons who are in need of institutional or other non-domiciliary assistance, and to render such assistance as may be desirable in each case, either by payment of recognized fees at approved homes for the blind, by boarding out or otherwise.

(ii) To provide such domiciliary assistance as may be necessary to any blind person who, in accordance with the declaration made with regard to the domiciliary assistance of blind persons in the Council's Administrative Scheme under Part I of the Local Government Act, 1929, must be dealt with under the Blind Persons Act, 1920.

(h) Registration.

To provide a system of registration of all blind persons living within the area, to be carried out by the County Medical Officer of Health.

(j) General Social Welfare.

To make provision for the general social welfare of the blind.

(k) Miscellaneous.

To exercise any of the powers and duties of the County Council under Section 2 (1) of the Blind Persons Act, 1920.

Expenditure.

The expenditure to be incurred by the County Council in any financial year shall be limited to the amount provided by them in their Estimates for each financial year.

SCHEME FOR ADMINISTRATION OF DOMICILIARY ASSISTANCE TO NECESSITOUS BLIND PERSONS.

(a) All applications for domiciliary assistance under the Blind Persons Act, 1920, shall be addressed to the Clerk of the County Council.

(b) Such applications for assistance shall be investigated by an officer of the County Council.

(c) The amount of domiciliary assistance to be given to necessitous blind persons shall be determined by the appropriate Committee upon the merits of each individual case, and after taking into account the existing means of the blind person.

(d) All cases granted domiciliary assistance shall be reviewed in detail at least once in twelve months.

(e) The domiciliary grants shall be paid through the Hertfordshire Society for the Blind weekly at the home of the recipients and the Society shall obtain a receipt for such payments on the prescribed form.

(f) This Scheme shall come into operation on the 1st day of the month following its approval by the Minister of Health.

Prevention and Treatment.—The causes of blindness are well known; in infants ophthalmia neonatorum is the chief cause and in adults, injury and certain diseases of the eye are mainly responsible. Special measures are adopted at birth by the midwives to minimize the risk of ophthalmic infection and during the year only seven cases of ophthalmia were notified out of 5,899 infants born. The early and appropriate treatment of diseases of the eye which if neglected may lead to total blindness is of the greatest importance. When assistance to secure the necessary treatment is required the case can be dealt with by the Public Assistance Authority; active measures to prevent blindness and to cure those forms of partial blindness which are amenable to operative treatment constitute an important supplementary part of the scheme.

Registration.—A system of registration of all blind persons living within the area is carried out by the County Medical Officer of Health.

In carrying out the scheme described above, the County Council have secured the help and co-operation of the County Nursing Association and the Hertfordshire Association for the Blind. The register of blind persons in the County which has been prepared contained:—

	Males.	Females.	Total.
At 31st March, 1923 .	143	162	305
" " 1924 .	147	166	313
" " 1925 .	168	186	354
" " 1926 .	188	203	391
" " 1927 .	191	226	417
" " 1928 .	211	249	460
" " 1929 .	213	255	468
" " 1930 .	207	255	462
" " 1931 .	212	254	466

During 1931 there were added to the register 51 blind persons, compared with 51 last year, 23 males and 28 females. The number removed from the register during the year was 47, of which 18 were males and 29 were females; 101 cases are at present receiving grants from the County Council, 51 males and 50 females.

MENTAL DEFICIENCY.

The number of cases reported to the County Medical Officer during the year for examination as to their mental condition was 166, compared with 111 for the previous year. Of this number 124 were found to be mentally defective, four were epileptic, two were of unsound mind, two were epileptic and feeble-minded, one was an epileptic imbecile and the remainder either dull and backward or suffering from some form of physical defect associated with backwardness.

Of the 166 cases reported upon, 83 were males and 83 were females, while 57 were above the age of 21, and 109 were below that age; of these cases 137 were from urban districts, and 29 were from rural districts.

The classification of the 124 cases found to be mentally defective within the meaning of the Act was as follows: Feeble-minded, 87; imbeciles, 32; idiots, 5. Of the total number examined, 8 were classified as physically defective, 22 as dull and backward, three doubtful, two as of unsound mind, two epileptic and feeble-minded, one epileptic imbecile, four epileptic.

During the year 22 cases were sent to certified institutions or were placed under guardianship, as against 18 in 1930. Of the 22 cases, 14 were feeble-minded, and 6 were imbeciles, one a moral imbecile and one an idiot. Eight cases were sent to special residential institutions and 14 were placed under guardianship. With five exceptions, all the cases were over 16 years of age, the oldest being 56, and the youngest 4 years.

At the end of the year there were 259 mental defectives in certified institutions or places of safety. At the present time there are about 108 defectives on the waiting list for admission to certified institutions, in addition to many others who would be sent to certified institutions if accommodation were available.

During the year 31 children were admitted to Kingsmead School, and of these 23 were County children and 8 out-county children. The number of children discharged during the year was 41, of which 26 were County cases. At the end of the year there were in residence in the school 109 children under the age of 16 and 10 feeble-minded girls over 16, making a total of 119 in residence.

During the year building operations have commenced at Cell Barnes, and it is expected that the Colony will be open for the admission of the first group of defectives in October of the

present year. The low grade block will be completed first, and it is proposed to admit in the first place mainly low grade cases with some high grade defectives who will be able to undertake domestic and outdoor duties. As the various buildings are completed and more accommodation is available, the medium and higher grade cases will be admitted in groups. The most urgent cases, however, are those of low grade type who require constant attention, and who present such a difficult problem especially in small crowded homes. Frequent application is made for the removal of such cases. The first cases to be admitted to the new Colony will, however, be the defectives who are at present provided for in institutions belonging to the London County Council, as an undertaking has been given to remove such cases when accommodation in the new Colony became available.

Owing to the absence of adequate accommodation in certified institutions it has been necessary to utilize "Guardianship" as far as is practicable to deal with certain types of defectives, although this is not a method which can satisfactorily be used in dealing with the low-grade, helpless type. The Central Association for Mental Welfare now arranges to deal with certain cases under guardianship by placing them where they obtain training at a training centre. Arrangements are now made for the payment of an annual fee of £15 in the case of a defective placed under guardianship in a district in which a training centre is available in order that the defective may benefit by instruction.

At the present time there are 91 mental defectives under guardianship in the County of whom 46 are County cases and 45 out-county cases.

Visits are made by your County Medical Officer to Hertfordshire cases under guardianship in the County. The cases seen during the year appeared on the whole to be well cared for, although in one or two cases greater care as regards supervision requires to be exercised. Each guardian has a special register in which the date of the visit and notes regarding the condition of the home and the defective are recorded. Statutory supervision is carried out by the nurses of the District Nursing Association in the County. In respect of each defective placed under statutory supervision a certificate is sent with a recommendation as to the number of visits to be made by the nurse.

The number of defectives to whom visits were paid by the nurses during 1931 was 357, and the number of visits paid was

make provision for infirm and chronic cases. There are three institutions of this class in the County, namely, Oster House, St. Albans, Haymeads, Bishop's Stortford, and Chalkdell House, Hitchin. Included in Class C are the remaining institutions in the County which provide accommodation for infirm, chronic, and incurable cases. Special reference should be made to the public Institution at Hatfield, which has been specially adapted for old and infirm females and which now provides accommodation for fifty-three cases of this type. The alterations which have been carried out in this Institution have made it in every way suitable for the purpose it is intended to serve.

The following table shows the existing accommodation in the County Institutions :—

Guardians Committee Area.	Institution.	SICK WARDS.			OTHER WARDS.			Total.
		Men.	Women.	Children.	Men.	Women.	Children.	
Barnet .	Barnet	—	—	—	110	81	30	221
	„ Wellhouse Hospital	85	160	32	—	—	—	277
Bishop's Stortford	Hatfield	—	53	—	3	17	—	73
	Bishop's Stortford	48	61	8	66	67	14	264
	Buntingford	10	10	—	9	8	7	44
Dacorum .	Hemel Hempstead	23	29	4	57	26	7	146
	Berkhamsted	16	23	2	14	21	7	83
East Herts	Ware	22	16	2	78	62	10	190
Hitchin .	Hitchin	34	38	—	89	48	18	227
St. Albans	St. Albans	58	80	—	61	49	18	266
Watford .	Watford	111	127	19	160	99	30	546
Total		407	597	67	647	478	141	2,337

During the year various improvements or extensions have been commenced or approved in connection with some of the County Institutions. A new operating unit which embodies all the latest improvements was opened at the Wellhouse Hospital, Barnet, where a considerable amount of major surgical work is now being carried out. At the Public Institution, Watford, some extension is now being made to provide additional accommodation for chronic cases. A scheme for the provision of a nurses' home and of increased accommodation for chronic cases at Haymeads, Bishop's Stortford, has been approved. At Hitchin proposals for the provision of a separate children's block and for certain much-required sanitary alterations have also been approved. The Public

Assistance Institution at Royston has been closed except for the use of casuals.

Consideration has been given during the year to the appointment of a small consulting staff for County Institutions. No doubt can possibly exist as to the value of such an appointment as regards efficiency of treatment. The services of a consultant should be available when required in surgical, medical, and mental cases. The occasional visit to a Public Institution of a consultant who is in a position to view a patient from an entirely different angle must obviously be in the best interests of the patient and will tend to prevent treatment becoming too stereotyped.

District Medical Work.—The duties of the district medical officer include attendance on destitute sick persons in their homes and when the home conditions are such as to make home treatment practicable, and when such nursing services as are necessary are available. Old and somewhat infirm persons are frequently sent to Public Assistance Institutions when they might quite reasonably be looked after at home. The nursing of patients in receipt of outdoor relief is carried out by the nurses of the District Nursing Associations. It is seldom that the services of the nurse are required for patients who are acutely ill as such cases are transferred to hospital or Public Assistance Institution. Old persons, however, require some special attention and the local nurse can be of great assistance in cases of this kind.

EPIDEMIC DISEASES.

The death-rate from epidemic disease shows a further decrease from 0·19 to 0·11. The total number of deaths from epidemic disease for 1931 was 47, compared with 74 for 1930, fewer deaths being recorded for both the urban and rural districts.

TABLE 14.

DEATH-RATES FROM EPIDEMIC DISEASES.

(For each District see Fly-leaf at end of Report.)

TABLE 10.	Hertfordshire.					
	Urban.		Rural.		County.	
	Rate.	Number.	Rate.	Number.	Rate.	Number.
1929	·23	62	·22	26	·22	88
1930	·20	55	·16	19	·19	74
1931	·12	34	·10	13	·11	47

The death-rate from epidemic disease was slightly higher in the urban districts; the highest rate reached being 0.9 (Stevenage). In three urban districts the death-rate was over 0.2 per 1,000 and in twelve urban districts there were no deaths from epidemic disease. In the rural districts the highest rate was 0.31 (Barnet); in two districts the rate was over 0.2 per 1,000 and in eight rural districts there were no deaths. These figures indicate a low incidence of infectious disease of a virulent type during the year.

Smallpox.—There was one case of smallpox notified during the year, compared with four last year. The case was that of a man living in Stevenage who was employed in London; the infection had been contracted at the factory where he worked. There were no deaths from the disease.

Measles and Whooping-cough.—The number of deaths from measles during the year was four, compared with 27 last year, three in urban districts and one in rural districts. Two of the deaths were in infants under twelve months. There were seven deaths from whooping-cough, four of which under the age of one year, compared with four last year.

Scarlet Fever.—There were 561 notifications of scarlet fever during the year, compared with 809 notifications last year. There were no deaths from scarlet fever during the year, which indicates that this disease is of a progressively mild type as during the previous year it was responsible for 11 deaths.

Influenza.—The number of deaths from this disease was 89, compared with 29 during 1930. Of this number 62 occurred in urban districts and 27 in rural districts. In the urban districts the largest number of deaths occurred amongst females over 75 years of age. The disease was most fatal in old people, the total number of deaths in persons over the age of 65 being 43. The districts in which the largest number of deaths occurred were Watford, St. Albans, and East Barnet Valley, and the rural districts of Hitchin and St. Albans.

Diphtheria.—There were 290 cases of diphtheria notified during the year, compared with 460 in 1930, 233 in the urban districts and 57 in the rural districts. The highest number of notifications was received from Watford (95), Hitchin (21), Cheshunt (19), and Barnet (17). There were 17 deaths from this disease, compared with 23 last year, 12 in urban districts

and five in rural districts. The largest number of deaths occurred in Watford (six) and in the rural district of St. Albans (three).

Enteric Fever and Paratyphoid Fever.—The total number of cases of enteric fever including typhoid and paratyphoid fever notified during the year was 27, compared with 36 last year; of this number, 12 were cases of enteric fever and 15 were cases of paratyphoid fever. Of the cases of typhoid fever, five were notified from urban districts and seven from rural districts. The largest number of cases of enteric fever notified in one district was three (St. Albans Rural) and two (Watford Rural). There was only one death from enteric fever during the year, which occurred in the rural district of Watford.

Puerperal Fever.—There were 25 cases of puerperal fever notified during the year, the same as last year, 20 in urban districts and five in rural districts. Sixty-six cases of puerperal pyrexia were notified, compared with 52 last year, 56 in urban districts and 10 in rural districts. The largest number of cases of puerperal fever notified in urban districts was four (Barnet and East Barnet Valley). The largest number of cases of puerperal pyrexia notified in urban districts was six (Barnet) and five (Hemel Hempstead). The difference in the number of cases of puerperal pyrexia notified in some of the urban districts of equal size is somewhat striking and can only be explained by the fact that the notification of this milder form of puerperal infection is not uniformly carried out.

Erysipelas.—There were 105 cases of erysipelas notified during the year, 74 in urban districts and 31 in rural districts, compared with 94 for the previous year, but no information is available regarding the actual number of deaths in the County from this cause. The largest number notified in the urban districts was 18 (Barnet), 14 (Watford), and 10 (Letchworth), and in the rural districts 15 (Watford) and 5 (Barnet).

Meningococcal Meningitis and Encephalitis Lethargica.—There were seven notifications of meningococcal meningitis, the same as last year, five in the urban and two in the rural districts. There were six deaths from this disease, compared with five last year, two in Hitchin, one in Stevenage, one in Watford and two in the Watford Rural District. There were six notifications of encephalitis lethargica all in urban districts, and there were nine deaths from this disease of which six were males and three were females.

Polioencephalitis and Poliomyelitis.—There was one case of polioencephalitis notified during the year; no case of poliomyelitis was notified.

Pneumonia and Broncho-pneumonia.—There were 279 cases of pneumonia notified during the year, compared with 193 last year, the number of deaths from this cause being 239, compared with 139 last year. There were 173 deaths in urban districts and 66 in rural districts. In the urban districts the largest number of deaths occurred in Watford (29), St. Albans (19), and East Barnet Valley (13). In the rural districts the largest number occurred in the St. Albans Rural District (14).

Bronchitis.—The number of deaths from bronchitis was 177, compared with 136 last year. The number of deaths in urban districts was 115 and in rural districts 62, compared with 82 and 54 last year. Of the total number of deaths from bronchitis 85 were males and 92 were females. There were five deaths from bronchitis under the age of twelve months, compared with nine last year.

Heart Disease.—There is an increase in the number of deaths from heart disease, which was 959, compared with 881 for 1930. Of the total number 652 were in urban and 305 in rural districts, and 438 were males and 465 were females. Of the total number of deaths from cardiac disease 706 or 80 per cent were above the age of 65. Under the age of 45 there were 57 deaths from heart disease, 39 in urban districts, and 18 in rural districts, and of these 23 were males and 34 females.

Other Diseases.—The number of deaths from acute and chronic Bright's disease was 177, compared with 138 last year. The number of deaths from cerebral hæmorrhage was 196, compared with 260. The number of deaths from cirrhosis of the liver was 15, as compared with 12 last year. The deaths from appendicitis were 32, as compared with 31 last year. There were 42 deaths from diabetes during the year, 35 in urban districts and seven in rural districts. The largest number of deaths, namely, 24, occurred in females in urban districts. Of the total number of deaths there were 27 in persons over the age of 65.

Other Notifiable Diseases.—During the year 23 cases of dysentery were notified, compared with three last year. The

LIFE IN THE ADMINISTRATIVE COUNTY OF HERTFORD, 1931.

AGGREGATE OF RURAL DISTRICTS.													
65—	75—	All ages.	0—	1—	2—	5—	15—	25—	35—	45—	55—	65—	75—
325	346	622	39	6	7	16	17	21	39	44	94	136	203
324	507	614	26	9	12	21	8	23	21	53	64	141	236
—	—	1	—	—	—	—	—	1	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	1	—	—	1	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	2	2	—	—	—	—	—	—	—	—	—	—
—	—	1	—	1	—	—	—	—	—	—	—	—	—
—	—	2	—	—	1	—	1	—	—	—	—	—	—
—	—	3	—	—	—	2	—	—	—	1	—	—	—
8	6	18	—	1	—	2	—	—	1	4	5	1	4
8	12	9	—	1	—	—	—	—	—	3	1	3	1
2	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	1	—	—	—	—	—	—	—	—	1	—	—
—	—	1	—	—	—	1	—	—	—	—	—	—	—
3	1	22	—	—	—	—	3	5	5	5	2	2	—
4	—	18	—	—	—	—	2	7	4	3	2	—	—
1	—	9	—	1	1	2	2	—	2	1	—	—	—
2	—	6	—	1	3	1	—	1	—	—	—	—	—
1	1	2	—	—	—	—	—	1	—	—	1	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	1	5	—	—	—	—	—	—	2	1	2	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
68	30	86	—	—	—	—	1	—	4	6	16	33	26
65	58	91	—	—	—	—	1	1	2	18	10	33	25
3	3	2	—	—	—	—	—	1	—	—	—	—	1
10	7	5	—	—	—	—	—	—	—	—	2	2	1
24	21	27	—	—	—	—	—	—	1	1	4	6	15
25	44	28	—	—	—	—	—	—	—	3	3	6	16
89	121	133	—	—	—	—	—	3	5	5	19	38	62
89	175	172	—	—	1	1	1	3	3	7	24	46	86
—	—	3	—	—	—	—	—	—	—	1	1	1	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
23	35	26	—	—	—	—	—	—	—	—	4	9	13
19	46	28	—	—	—	—	—	—	—	—	2	9	17
12	33	30	—	—	—	—	—	—	1	1	1	6	21
14	38	32	1	—	1	—	—	—	—	1	—	6	23
16	10	37	5	2	4	1	1	—	2	—	7	10	5
10	18	29	3	3	1	5	—	—	1	3	3	4	6
2	3	9	—	—	—	—	—	—	—	—	2	2	5
8	3	7	—	—	1	—	—	—	—	—	1	4	1
2	2	9	1	—	—	—	—	2	1	2	1	2	—
4	2	1	—	—	—	—	—	—	—	1	—	—	—
2	1	2	2	—	—	—	—	—	—	—	—	—	—
1	—	7	—	—	—	1	1	—	2	—	—	1	2
—	—	4	—	—	—	—	—	—	1	—	2	—	1
—	—	8	—	—	—	2	—	2	—	1	2	1	—
3	—	2	—	—	—	—	—	—	—	—	1	1	—
1	—	2	—	—	—	—	—	—	—	1	1	—	—
4	—	—	—	—	—	—	—	—	—	—	—	—	—
3	5	6	—	—	—	—	—	—	2	1	1	1	3
6	6	10	1	—	1	—	—	—	2	—	1	1	4
4	8	16	1	—	—	2	—	1	2	—	2	3	5
5	5	18	—	—	—	—	1	—	—	4	3	4	6
11	7	11	—	—	—	—	—	—	1	2	2	2	3
—	—	5	—	—	—	—	—	2	3	—	—	—	—
—	—	2	—	—	—	—	—	2	—	—	—	—	—
—	—	18	18	—	—	—	—	—	—	—	—	—	—
—	—	21	19	2	—	—	—	—	—	—	—	—	—
4	25	13	—	—	—	—	—	—	—	—	1	1	11
11	48	34	—	—	—	—	—	—	—	—	—	7	27
—	1	10	—	—	—	—	—	—	2	2	4	2	—
1	1	3	—	—	—	—	—	—	1	1	—	1	—
14	6	41	1	1	—	3	7	5	3	7	8	2	4
5	14	14	—	—	2	3	1	1	—	1	1	2	3
30	32	72	9	1	—	5	1	3	6	3	8	13	23
27	19	44	2	1	1	3	1	3	2	5	5	7	14
3	3	8	—	—	—	1	—	—	1	1	1	2	2
2	2	8	—	—	—	—	—	—	—	1	1	3	3

TABLE 17.—CAUSES OF DEATH BETWEEN SEXES

CAUSES OF DEATH.	Ashwell.		Barnet.		Berkhampstead.		Buntingford.		Hatham.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1 Typhoid and Paratyphoid Fever ...	...	...	...	...	...	...	...	...	...	...
2 Smallpox ...	...	...	...	...	...	...	...	...	...	...
3 Measles ...	...	...	...	...	...	...	...	...	...	...
4 Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...
5 Whooping-cough ...	...	...	1	...	...	...	...	...	...	...
6 Diphtheria ...	...	...	...	...	...	...	...	...	...	...
7 Influenza ...	...	...	1	...	...	...	1	...	3	...
8 Encephalitis Lethargica ...	...	...	...	1	...	...	...	...	...	...
9 Cerebo-spinal Fever ...	...	...	...	...	...	...	...	...	...	...
10 Tuberculosis of Respiratory System ...	1	...	1	...	...	1	1	1	1	...
11 Other Tuberculous Diseases ...	...	...	1	...	...	...	...	...	...	...
12 Syphilis ...	...	...	...	...	...	...	...	...	...	...
13 General Paralysis of the Insane (<i>tabes dorsalis</i>) ...	...	...	1	...	1	...	...	...	...	...
14 Cancer, Malignant Disease ...	7	2	2	5	2	7	5	7	3	5
15 Diabetes ...	...	...	1	...	...	...	2	...	...	...
16 Cerebral Hæmorrhage, etc. ...	2	...	1	...	3	1	...	3	2	2
17 Heart Disease ...	5	9	3	9	5	10	19	6	10	8
18 Aneurysm ...	...	...	...	...	...	...	...	...	...	...
19 Other Circulatory Diseases ...	1	...	...	2	2	1	1	2	5	4
20 Bronchitis ...	2	2	...	...	2	2	...	2	2	3
21 Pneumonia (all forms) ...	4	1	4	...	1	3	2	2	2	1
22 Other Respiratory Diseases ...	...	...	...	1	...	...	...	...	2	...
23 Peptic Ulcer ...	...	...	1	...	...	...	...	...	...	...
24 Diarrhoea, etc. (under two years) ...	...	...	...	...	...	...	...	...	...	...
25 Appendicitis ...	...	1	...	...	1	2	...	...	...	...
26 Cirrhosis of Liver ...	1	...	...	...	...	...	...	...	...	...
27 Other Diseases of Liver, etc. ...	...	...	...	...	...	...	...	...	...	1
28 Other Digestive Diseases ...	...	...	2	2	...	1	...	1	1	...
29 Acute and Chronic Nephritis ...	1	1	1	...	1	3	...	...	1	1
30 Puerperal Sepsis ...	...	...	...	...	...	2	...	...	...	...
31 Other Puerperal Causes ...	...	...	...	...	...	...	...	...	...	...
32 Congenital Debility and Malformation, Premature Birth ...	...	...	2	4	1	...	...	...	1	2
33 Senility ...	2	6	...	2	...	...	...	1	1	3
34 Suicide ...	...	1	1	...	...	1	...	...	1	...
35 Other Deaths from Violence ...	...	1	2	2	...	...	3	...	...	2
36 Other Defined Diseases ...	9	1	2	2	4	1	3	3	8	2
37 Cases Ill-defined or Unknown ...	...	...	...	...	...	...	1	...	1	2
All causes ...	35	25	27	30	23	35	36	30	44	36
Total ...	60		57		58		65		80	

IN RURAL DISTRICTS, 1931.

Hatfield.		Hemel Hempstead.		Hertford.		Hitchin.		St. Albans.		Ware.		Watford.		Welwyn.		TOTAL.	Causes of Death.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.&F.	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	3	5
...	...	...	1	...	...	...	...	2	1	...	...	1	...	...	...	5	6
...	3	...	...	...	...	4	3	3	2	2	...	1	1	3	...	27	7
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	8
...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	2	9
2	1	3	1	1	1	3	1	6	5	...	5	3	1	...	1	40	10
1	2	2	...	1	...	...	3	2	1	...	...	1	...	1	...	15	11
...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	2	12
...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	5	13
5	7	5	3	13	6	12	12	7	11	9	9	13	15	3	2	177	14
...	...	...	1	...	...	...	...	1	1	...	...	...	1	...	...	7	15
...	...	1	3	3	3	5	4	2	4	5	5	3	3	...	...	55	16
13	18	8	12	6	10	17	18	16	25	14	21	15	22	2	4	305	17
1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	3	18
3	2	1	...	1	3	3	3	5	2	1	2	2	4	1	3	54	19
4	4	4	2	2	2	3	4	2	1	5	5	4	4	...	1	62	20
2	1	...	2	1	3	1	2	10	4	3	5	6	3	1	2	66	21
1	...	...	...	1	1	...	...	2	1	3	2	...	1	...	1	16	22
1	1	1	...	...	...	...	...	2	...	...	...	3	...	1	...	10	23
...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2	24
...	2	...	...	...	...	1	1	...	1	...	1	2	...	...	...	12	25
...	...	...	...	...	...	1	1	...	...	...	1	...	...	...	...	4	26
...	...	...	...	...	1	...	1	...	1	...	1	...	1	...	...	6	27
3	1	1	2	1	1	1	3	...	5	1	5	...	2	...	...	33	28
4	1	...	...	...	1	1	...	3	1	2	1	3	2	1	...	29	29
...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	5	30
...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2	31
1	2	2	...	1	2	2	1	2	6	1	2	4	2	1	...	39	32
3	3	...	2	...	3	2	6	2	...	1	4	2	4	...	...	47	33
1	...	...	...	...	...	1	...	3	...	2	...	1	...	...	1	13	34
2	...	3	...	4	...	7	1	10	3	2	3	7	1	1	1	55	35
4	5	5	1	3	4	6	6	13	7	6	7	8	5	1	...	116	36
...	...	...	...	2	...	3	3	...	...	1	2	...	1	...	...	16	37
51	55	37	31	40	43	77	74	97	83	59	81	80	75	16	16	1236	
106		68		83		151		180		140		155		32			

number of cases of ophthalmia neonatorum notified during the year was seven, compared with eight last year, five in urban districts and two in rural districts. Six cases of malaria were notified during the year, compared with two last year. One case of anthrax was notified.

The increase in the number of cases of dysentery mentioned above was due to an outbreak of the disease in a residential school for boys in July ; in all nineteen cases occurred, but only the first few cases were severe in type and there were no fatal cases. Every precaution was taken by the Medical Officer of Health of the district and the outbreak was soon under control.

ISOLATION HOSPITALS.

In last year's report reference was made to the survey which had been carried out under Section 63 of The Local Government Act, 1929, and particulars were given of the character and extent of the accommodation provided in the twelve isolation hospitals in the County.

A scheme has now been prepared which aims at the provision of a limited number of isolation hospitals which are capable of extension to meet future requirements. This scheme is at present the subject of negotiations between the County Council and the authorities which administer the isolation hospitals, and it is hoped that by co-operation and the adoption of a broad-minded policy the scheme with such modifications as further consideration may show to be desirable will in due course be approved and adopted.

The information obtained during the survey of the isolation hospitals in the County has clearly indicated that the present system of providing a number of independent hospitals, several of them of small size and not well designed or equipped is neither efficient nor economical. It not infrequently happens that when one hospital has a considerable amount of vacant accommodation or, indeed, may be empty, a hospital in some other part of the County may be overcrowded. There is, therefore, everything to be said in favour of the adoption of a general scheme of "pooling" accommodation so that vacant beds would be made available for patients from any part of the County. The question of distance raises no difficulty as motor transport has reduced distance considerably.

A further difficulty which has been met with in the present system of isolation hospital accommodation is the restriction which is exercised in the admission of patients. It is now recognized that if an isolation hospital is to serve to a maximum extent a useful purpose, cases of infectious disease other than diphtheria and scarlet fever must be admitted; indeed, that for any case of infectious disease apart from those for which special provision may be made elsewhere, accommodation in the isolation hospital should be provided. For this purpose special accommodation in specially designed units is required, and this necessity is a further argument in favour of fewer and larger hospitals with "pooled" accommodation.

BACTERIOLOGICAL EXAMINATIONS.

Arrangements are now made with the laboratory at the Hill End Mental Hospital for the bacteriological examination of sputum and other specimens. These arrangements have worked extremely well and a large number of bacteriological and pathological specimens are now examined for various authorities. During the year 808 specimens were examined under the tuberculosis scheme of the County Council, and specimens and swabs are sent by local sanitary authorities, Public Assistance institutions, and Hospitals. There is evidence that the work in the laboratory at Hill End is increasing in scope and that the careful and thorough manner in which all examinations are made is mainly responsible for such increase.

The value of bacteriological examinations in the prevention and treatment of disease cannot be too strongly emphasized. In such diseases as diphtheria, tuberculosis, and puerperal sepsis early bacteriological examinations of swabs, sputum, and blood are absolutely essential for an early and accurate diagnosis and for a true appreciation of the correct lines of treatment and the prospects of recovery. In contacts and carriers, also, frequent bacteriological examination is necessary. Recent investigations into the source of infection in puerperal fever has indicated the necessity of carrying out routine bacteriological examinations of the throat and nasal passages of those in attendance on maternity cases. For this reason it is important that periodical examination of swabs of the throat and nose of members of the nursing staff of Maternity Hospitals and Homes should be carried out so as to determine when any member becomes a carrier of the hæmolytic strain of the streptococcus.

DISINFECTION.

Disinfection is carried out with a view to prevent the spread of infectious diseases. Infected clothing is most efficiently disinfected by means of steam. Most of the Isolation Hospitals and some of the County Institutions have high pressure steam disinfectors to which infected clothing and mattresses can be sent for disinfection. Rooms can be disinfected by means of vapour or spraying, but thorough cleanliness, fresh air, and sunlight are probably just as efficacious.

Steps are taken to keep in close touch with the local authorities in connection with the disinfection of premises occupied by open cases of tuberculosis. After the admission of such cases to hospital or sanatorium, or immediately it is known that death of the patient has occurred in his home, a communication is sent to the district Medical Officer of Health requesting that disinfection should be carried out. In some districts disinfectants such as Izal are given free to the householder in whose house a tuberculous patient is resident, in order that the sputum may be disinfected and the room occupied by the patient thoroughly cleaned out at intervals so as to minimize the risk of contact infection.

Some of the disinfectants which are used are of doubtful value. Recent investigation has shown that Izal and Cyllin are the most reliable. Spraying with Izal is probably the most reliable method of room disinfection.

PUBLIC VACCINATION.

The functions relating to vaccination are discharged by the County Council as functions relating to Public Health. The figures for the year show that year by year the number of children vaccinated is becoming less and that except in the event of an outbreak of smallpox it is becoming increasingly difficult to persuade parents to have their children vaccinated. From the figures given below it will be observed that there were 993 primary vaccinations in children under the age of 12 months, and as the number of births during the year was 5,899 it can be readily estimated to what extent primary vaccination under the age of one year is not carried out.

It is doubtful as to whether the present system of voluntary vaccination should be continued as the results obtained are so poor; experience has shown, however, that

when an outbreak of smallpox does occur the number of primary and secondary vaccinations in the district concerned increases rapidly, which indicates that some system of restricted compulsory vaccination is long overdue.

The duties of Vaccination Officers are laid down in the Vaccination Order, 1930, and the instructions to these officers are given in the Fourth Schedule of the Order. Every Vaccination Officer may be appointed on such terms and conditions of service as the County Council may think proper. The officers are paid according to a scale of fees, but in one district the remuneration consists of an annual salary. A uniform scale of fees has been adopted by the County Council for all appointments of public vaccinators as from 1st April, 1930.

As regards the number of vaccinations carried out, the following figures refer to the twelve months ending 31st December, 1931 :—

Primary Vaccinations	.	1,250
Revaccinations	. . .	158
		<hr/>
Total	. . .	<u>1,408</u>

Of the primary vaccinations, 993 were under one year of age, and 257 were one year and upwards. The largest number of primary vaccinations during the period stated was carried out in the following districts: Watford (111), St. Albans No. 2 District (80), Cheshunt (78), Rickmansworth (74), Bishop's Stortford (64), and Harpenden (54). The largest number of revaccinations was carried out in the Hertford District (73), where the Boys of Dr. Barnardo's Home were revaccinated.

NURSING HOMES.

The Nursing Homes Registration Act, 1927, provides for the registration and inspection of nursing homes and it is an offence under the Act for any person to carry on a nursing home without being duly registered. Application for registration has to be made to the local supervising authority and has to be accompanied by a fee of five shillings. The authority may refuse to register an applicant if they are satisfied (a) that he or any person employed by him is not a fit person to carry on or be employed at a nursing home; (b) that the premises are not fit to be used for a nursing

home owing to situation, construction, accommodation, staffing or equipment, or that the premises are used in a way unsuitable or undesirable in the case of a nursing home ; and (c) that the conditions laid down in the Act as to the qualifications of those in charge of nursing homes and maternity homes are not being complied with.

A nursing home is defined under the Act as any premises used or intended to be used for the reception of and the providing of nursing for persons suffering from any sickness, injury or infirmity, and includes a maternity home ; it does not include (a) any hospital or premises maintained or controlled by a Government department or local authority or any other body of persons constituted by Special Act of Parliament or incorporated by Royal Charter ; (b) any institution for lunatics within the meaning of the Lunacy Act, 1890 ; and (c) any certified institution, certified house or approved home within the meaning of the Mental Deficiency Act, 1913.

The County Council has made by-laws under the Act with respect to nursing homes in the County.

There are at the present time 34 nursing homes in the County registered under the Act. The majority are mixed homes, which admit both medical and surgical cases and maternity cases. The size and standard vary considerably, but there is no doubt that the registration and inspection of nursing homes have improved their administration. In a few homes quite a high standard of medical and surgical work is carried out. A few homes are reserved almost exclusively for old infirm patients who require constant care and attention ; such homes serve a definitely useful purpose.

MATERNITY AND CHILD WELFARE.

An important part of the Public Health work in the County is that carried out for the care of mothers and infants under various Acts. The infant mortality for the year was 46, compared with 42 last year, and although this shows a slight increase it is low and is to be regarded as satisfactory. Comparison with previous years shows the marked reduction which has taken place in infant mortality ; thus, for the years 1900 and 1901 the infant mortality in the County was respectively 112 and 103, whereas for the years 1930 and 1931 the corresponding rates were 42 and 46. These figures indicate the value of the scheme of maternity and child welfare in preserving the lives of infants.

The maternal mortality has not shown any corresponding reduction but it is satisfactory to be able to report that the number of maternal deaths is fewer than last year.

The scheme of Maternity and Child Welfare in the County includes both official and voluntary effort, and is summarized as follows :—(1) Thirteen County Council Maternity and Child Welfare Centres, at which consultations are held, infants are weighed, and instruction and advice are given to nursing and expectant mothers ; in addition, also, a considerable amount of voluntary work is undertaken in various directions by ladies who are interested in the work of the Centres ; (2) eight special ante-natal clinics at Barnet, Berkhamstead, East Barnet, Hertford, Hitchin, Letchworth, Tring and Waltham Cross ; ante-natal clinics are also held at the remaining five Centres : (3) Thirty Voluntary Maternity and Child Welfare Centres ; (4) Seven Weighing Centres ; (5) Provision of maternity beds in four districts in the County, namely, Hertford, Hitchin, Hemel Hempstead, and Watford ; (6) Convalescent Home at St. Leonards ; (7) attendance at orthopædic and massage clinics and dental clinics ; (8) the provision of hospital treatment in exceptional cases of infantile diarrhœa and ophthalmia neonatorum ; (9) health visiting ; (10) the granting of milk free or at half cost to necessitous mothers and young children on a medical certificate ; and (11) arrangements for the hospital treatment of cases of notifiable puerperal fever in approved institutions. Additional arrangements have also been made under the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations for consultation with an obstetric specialist, for skilled nursing and for necessary bacteriological examinations in cases of puerperal pyrexia and fever.

Infant Life Protection.—The duties under Part I of " The Children Act, 1908 ", formerly discharged by Poor Law Authorities are now discharged by the Councils of Counties and County Boroughs as duties under " The Maternity and Child Welfare Act, 1918 ", except that where the Council of a District have established a Maternity and Child Welfare Committee the said duties shall in that district be discharged by the Council of the district.

The main object of Part I of the Act is to secure that any child under seven years of age maintained " for reward " shall be notified to the Local Authority with a view to observation and supervision.

The chief duties which this Act imposes may be summarized as follows :—

(1) Written notification to Local Authority within 48 hours of particulars regarding one or more infants under seven years received and maintained " for reward " by any person when such infant is received for more than 48 hours.

(2) Written notice of any change of address or of death or removal, with necessary particulars, must be given to Local Authority within 48 hours.

(3) The chief duties of the Local Authority under the Act include the ascertainment of any persons receiving children, regarding whom notice should be given and the appointment of Infant Protection Visitors to visit such children and the premises in which they are kept, to satisfy themselves that the children are properly nursed and maintained, and to give any advice or directions which may be regarded as necessary.

As regards the work carried out by the Infant Protection Visitors, the following information has been given me by Miss Harrington for 1931 :—

Number of children under supervision	. 374
Total number of visits paid	. 2268
Number of forms giving home conditions	. 85

The reports sent in by the nurses contained information regarding the size of the house, its condition and the suitability of the mother to care for and supervise young children. Where conditions are not satisfactory, steps are taken to remedy them or to transfer the child or children to a more suitable home. If conditions are satisfactory, a certificate is issued approving the reception of a specified number of children.

With regard to the written notification to be given by the person who undertakes the nursing and maintenance of the infants in question, Section 1 of " The Children Act, 1908 ", provides that a person who undertakes for reward the nursing and maintenance of one or more infants under the age of 7 years apart from their parents, or having no parents, must, when any such infant is received for more than 48 hours, give to the Local Authority, within 48 hours from its reception, written notice stating the name, sex and date and place of birth of the infant, the name of the person receiving the infant, and the dwelling within which the infant is being kept, and the name and address of the person from whom the infant was received.

Voluntary Centres.—There are now thirty voluntary centres and seven weighing centres in the County. These centres serve a most useful purpose, especially in villages, as they reach mothers and infants living in rural districts. In the accompanying tables particulars are given of the work carried out at the voluntary centres and weighing centres during the year from which some idea of its scope and character can be obtained.

Maternity Beds.—Accommodation for maternity cases is provided at the Watford Maternity Home (21 beds), West Herts Hospital (8 beds), the Maples, Hitchin (6 beds), and the County Hospital, Hertford (4 beds). In addition there are a number of beds provided in the various County institutions. There is an excellent maternity unit at the Wellhouse Hospital, Barnet. Arrangements are also made for the admission of complicated maternity cases to the Addenbrooke's Hospital, Cambridge, from the northern part of the County.

There is an increasing demand for hospital accommodation for normal cases. While there is no question about the necessity of hospital beds for complicated maternity cases and for cases from insanitary homes there exists some doubt as to whether the best interests of the normal case are served by going into a ward in a maternity hospital or home. Indeed, the indiscriminate admission of normal maternity cases to public maternity homes has in some instances led to the overcrowding of these institutions and the bringing of the normal case into closer contact with the abnormal which is most undesirable. It is necessary to impress upon the expectant mother that, given a normal condition, a clean home, an efficient midwife, and if necessary the services of a medical practitioner, then her prospects of recovery in her own home are better than in an overcrowded maternity home.

During the year Mr. Ellison saw 25 patients in consultation with doctors in the County. Of these 17 were cases of puerperal sepsis, 14 of which were confined at home and three in Nursing Homes. Of the 17 cases of sepsis three had streptococci in both swab and blood, four had streptococci in the swab only, one in blood only, and two had streptococci elsewhere; in seven cases no swabs were taken. The other eight cases seen in consultation had the following conditions: pneumonia, encephalitis, hydramnios, cardiac weakness, two cases of toxæmia, and placenta previa.

TABLE 18.
TABLE GIVING PARTICULARS OF ATTENDANCES AT VOLUNTARY MATERNITY AND CHILD WELFARE CENTRES DURING 1931.

Centres.	No. of times Centre open.	No. of mothers attending.	No. of children attending under 1 year.	No. of children attending Centre between 1 and 5 years.	No. of children attending Centre during 1931 for first time: Under 1 year.	No. of children attending Centre during 1931 for first time: between 1 and 5 years.	Total children's attendances.	Average attendance of children.	No. of deaths of children.	No. of children who had orthopaedic treatment.	No. of infant consultations.	No. of mother's consultations.	Total No. of expectant mothers attending.	Total No. of attendances by expectant mothers.	Average attendance of expectant mothers per session.	No. of ante-natal consultations.	No. of talks given at Centre.	No. of doctor's attendances.
Aldbury	24	24	12	19	10	2	262	10.9	—	—	39	1	—	—	—	—	4	7
Apsley End	23	64	54	45	34	3	663	28.8	—	—	229	—	—	—	—	—	19	23
Baldock	51	92	74	46	42	7	1,556	30.5	—	2	533	20	8	14	—	—	—	50
Boreham Wood	24	117	90	67	31	12	1,208	50.3	1	—	351	—	—	—	—	—	—	12
Chipperfield	24	70	39	82	30	12	1,329	55.3	1	4	363	71	10	23	3.2	23	24	
Chorleywood	23	44	24	34	16	6	444	19.3	—	—	444	—	—	—	—	—	23	
Colney Heath	22	72	54	55	36	15	704	32.0	2	—	137	20	12	28	3.5	28	11	
Harpenden	33	190	84	130	47	24	2,224	67.3	1	8	509	14	86	151	13.7	137	33	
Hoddesdon	50	213	117	125	109	30	2,134	43.8	1	33	661	—	66	150	12.5	150	24	
Kimpton	24	36	21	25	13	3	371	15.4	—	—	16	6	13	33	2.7	31	12	
King's Langley	12	52	25	47	17	1	363	30.2	—	—	320	35	4	12	1.7	—	10	
Knebworth	44	31	27	23	15	6	630	15.6	—	—	119	—	5	7	—	—	6	
Langleybury	19	32	23	23	18	7	339	17.8	2	—	110	—	—	—	—	—	—	
London Colney	19	44	16	30	10	1	438	23.0	—	—	40	—	—	—	—	—	—	
North Mymms	19	82	50	52	50	52	541	28.4	—	—	57	2	6	10	—	—	—	
Potten End	9	21	10	25	4	—	135	15.0	—	—	10	—	—	—	—	—	—	
Little Gaddesden	12	12	4	9	3	—	64	5.3	—	—	8	—	—	—	—	—	—	
Radlett	36	60	34	48	25	10	808	22.4	—	1	178	—	5	24	—	—	—	
Redbourn	22	41	31	32	13	11	268	12.1	—	—	26	12	—	—	—	—	—	
Rickmansworth	23	102	74	53	54	11	786	34.1	1	1	106	6	3	—	—	—	—	
Royston	24	31	20	36	14	8	344	14.3	1	—	138	—	—	—	—	—	—	
Tewin and Datchworth	7	32	14	28	14	28	100	14.2	—	—	40	1	—	—	—	—	—	
(opened 15th September, 1931).																		
Ware	52	153	115	116	61	32	1,786	34.3	1	3	419	11	82	232	9.0	232	25	
Welwyn	46	110	70	82	39	17	1,319	28.6	—	—	462	107	62	125	10.4	125	23	
Woodsome	45	97	29	38	15	8	530	11.7	—	1	120	12	12	14	1.7	—	—	
Woolmer Green	21	34	21	25	15	14	269	12.8	—	—	62	13	—	—	—	—	—	
Welwyn Garden City (Peartree)	52	254	147	156	91	39	2,830	54.4	—	6	1,181	29	74	189	15.7	189	6	
Welwyn Garden City (Lawrence Hall)	52	207	117	133	62	19	2,172	41.7	—	7	861	8	43	89	7.4	89	5	
Weston	9	18	9	19	3	—	186	20.6	1	—	—	—	—	—	—	—	—	
Wigginton	12	18	2	26	1	—	235	19.5	—	—	19	—	1	3	—	—	—	
Totals	833	2,310	1,411	1,633	923	387	25,258	30.3	12	66	7,558	377	492	1,107	8.2	1,071	117	509

TABLE 19.
GIVING PARTICULARS OF ATTENDANCES AT VOLUNTARY WEIGHING
CENTRES DURING 1930.

CENTRES.	No of Times Centre Open.	No. of Mothers Attending.	No. of Children Attending under 1 year.	No. of Children Attending, 1-5 years.	No. of Children Attending Centre during 1931 for first time, under 1 yr.	No. of Children Attending Centre during 1931 for first time, 1-5 years.	Total Children's Attendances.	Average Attendance of Children.	No. of Deaths of Children.	No. of Children who had Orthopædic Treatment.	No. of Talks given at Centre.
Braughing	7	13	2	19	2	1	64	9.1	—	—	6
Bushey	45	116	84	77	58	18	1740	38.6	2	1	—
Croxley Green	11	40	25	29	23	5	204	18.5	—	1	11
Great and Little Amwell	10	17	10	11	8	—	65	6.5	—	—	—
High Cross	12	46	16	61	13	11	337	28.0	—	3	—
King's Walden	46	33	9	33	6	3	660	14.3	—	1	4
Standon	7	16	6	19	3	—	90	12.8	—	—	6
Totals	138	281	152	249	113	38	3160	22.8	2	6	27

Massage and Orthopædic Centres.—During the year 1931 the number of defects and morbid conditions found in children under 5 years of age who attended and received treatment at the massage and orthopædic centres in the County was 305.

Dental Treatment.—The treatment carried out during the year in the case of mothers and in children under 5 years of age is shown as follows :—

Mothers and children Inspected by the Dentists	452
Found to require treatment	452
Actually treated.	439
Attendances made for treatment	569
Fillings (New Barnet)	13
Extractions (Barnet, New Barnet, St. Albans, Welwyn).	1479
Administrations of general anæsthetic for extractions	349

DR. SWATMAN'S REPORT.

This work has increased steadily during the year. At the Infant Welfare Centres the number of children who attended was increased by one-eighth, with nearly a thousand more

TABLE 20.

GIVING PARTICULARS OF EXPECTANT MOTHERS WHO ATTENDED THE ANTE-NATAL CLINICS IN 1931 COMPARED WITH THOSE IN 1930. (Dr. Swatman's District.)

Ante-Natal Clinic.	No. of times clinic opened in		No. of expectant mothers on books in		No. of consultations these with Medical Officer in		Average number of consultations of expectant mothers in		No. of deaths amongst expectant mothers in		No. of expectant mothers referred to dental clinic in		No. of Post-Natal consultations in		Normal expectant mothers in 1931.		Expectant mothers with abnormal conditions dependent on pregnancy in 1931.		Expectant mothers with abnormal conditions dependent on pregnancy in 1931.		Percentage of normal confinements in	
	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	Normal confinement.	Abnormal confinement.	Normal confinement.	Abnormal confinement.	1931.	1930.	
Bishop's Stortford	23	23	14	9	23	17	1	1	—	2	—	—	10	—	7	4	2	4	1	4	63	100
Hatfield	23	21	30	21	77	36	3	2	—	—	4	13	13	—	27	10	—	10	—	86	80	
Hitchin	48	42	103	175	614	496	13	12	1	3	5	93	93	—	33	38	15	38	7	38	71	88
Letchworth	24	22	45	36	128	102	5	5	—	2	—	83	83	—	7	23	1	23	—	96	88	
St. Albans	52	45	74	25	195	38	4	1	—	1	2	96	96	—	8	38	2	38	3	89	95	
Stevenage.	46	32	23	12	43	21	1	1	1	4	—	34	34	—	1	9	—	9	—	82	100	
	216	185	349	278	1080	710	27	22	2	12	13	829	829	—	50	122	20	122	11			

TABLE 21.
 GIVING PARTICULARS OF CHILDREN UNDER 5 YEARS OLD WHO ATTENDED THE CENTRES IN 1931 COMPARED WITH
 THOSE IN 1930. (Dr. Swatman's District.)

Centre.	No. of times the Centre was open in		No. of children on the books in		No. of attendances of children in		Average weekly attendance of children in		No. of deaths of children in		No. of children who had Orthopaedic treatment in		No. of children referred to Dental Clinic in		No. of Nursing Mothers referred to the Dental Clinics in		No. of Defects and Ailments in	
	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	
Bishop's Stortford	50	49	151	107	2,683	2,080	54	43	—	—	4	9	1	68	76			
Hatfield . . .	45	45	138	143	1,160	1,428	26	31	2	—	6	2	—	52	68			
Hitchin . . .	48	44	387	350	2,919	3,242	61	74	3	4	11	16	2	183	149			
Letchworth . . .	52	48	410	337	4,219	3,097	81	65	3	—	10	25	10	170	143			
St. Albans . . .	52	52	531	524	4,383	4,639	84	88	3	1	32	32	2	223	211			
Stevenage . . .	46	43	195	169	1,440	1,551	31	36	—	3	11	13	10	91	68			
	293	281	1,812	1,630	16,804	16,037	337	337	11	8	74	97	25	787	715			

attendances. In spite of the cold, wet summer the health of the children has been good on the whole, and the number of deaths among them (13, equivalent to 6 per 1,000)—was less by one-third than in 1930. They were due chiefly to bronchitis or pneumonia.

The ante-natal work has also increased during the year. The actual number of expectant mothers who attended was increased by one-fourth. Three-fourths of those who attended the clinic were suffering from some abnormality, but as the result of treatment 84 per cent of these were confined normally. The actual number of normal confinements was 236, while there were 44 abnormal confinements or miscarriages.

The actual figures are given elsewhere in the Report.

DR. ORNSTEIN'S REPORT.

The same sessions, both at the Ante-natal Clinics and the Child Welfare Centres, were again held during the year.

That expectant mothers are increasingly realizing the importance of ante-natal supervision, is borne out by the fact that the number of mothers on the books again showed a considerable increase—72 over last year, and an increase of 311 over the year 1929. During the past two years, amongst 1,108 expectant mothers on the books, entailing 3,230 consultations, no maternal deaths occurred.

The percentage of normal confinements was 91 per cent, as compared with 87 per cent in 1930.

The number of post-natal consultations was disappointing, and only 8 per cent of the mothers who were confined during the year returned for post-natal supervision. The mothers are not yet fully aware that the detection, and subsequent correction, of existing abnormalities after confinement must give not only an improved general health but a better prospect of a normal confinement on a future occasion.

The number of children attending the Welfare Centres was approximately the same as during the previous year. Seven deaths occurred amongst these children, three under one year and four between one and five years of age. The causes were pneumonia (3), bronchitis, meningitis, hæmophilia, and burns. There is little doubt that the lack of sunshine during the past year played a prominent part in causing illness amongst the children.

TABLE 22.

GIVING PARTICULARS OF EXPECTANT MOTHERS WHO ATTENDED THE ANTE-NATAL CLINICS IN 1931,
 COMPARED WITH THOSE OF 1930. (Dr. Ornstein's District.)

Ante-Natal Clinic.	No. of times clinic opened in		No. of expectant mothers on books in		No. of consultations of these with Medical Officer in		Average number of consultations of expectant mothers in		No. of deaths amongst expectant mothers in		No. of expectant mothers referred to the dental clinic in		No. of Post Natal consultations in		Normal expectant mothers in		Expectant mothers with abnormal conditions dependent on pregnancy in		Expectant mothers with abnormal conditions dependent on pregnancy in		Percentage of normal confinements in	
	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1931.	1930.	1931.	1930.	1931.	1930.	
Barnet	24	22	56	59	100	122	7	6	—	6	4	1	2	—	—	—	—	—	—	—	97	94
Berkhamsted	24	21	66	48	240	111	10	5	—	—	—	2	—	—	—	—	—	—	—	—	96	82
East and New Barnet	25	22	119	84	450	221	18	10	—	51	2	15	2	2	1	1	1	1	1	1	95	91
Hemel Hempstead	48	46	34	26	120	59	3	4	—	—	1	—	—	—	—	—	—	—	—	—	96	76
Hertford	52	44	92	102	404	313	8	7	—	8	24	8	—	—	—	—	—	—	—	—	89	91
Tring	23	24	45	37	106	90	7	4	—	—	14	3	—	—	—	—	—	—	—	—	86	65
Waltham Cross	27	25	91	93	296	194	11	8	—	5	2	7	—	—	—	—	—	—	—	—	96	92
Ware Voluntary Centre	26	19	87	69	237	120	9	6	—	10	8	3	—	—	—	—	—	—	—	—	93	91
	240	204	590	518	2100	1130	8	6	—	79	35	30	3	3	7	2	7	3	2	7	91	87

TABLE 23.
 GIVING PARTICULARS OF CHILDREN UNDER 5 YEARS OLD WHO ATTENDED THE CENTRES IN 1931,
 COMPARED WITH THOSE IN 1930. (Dr. Ornstein's District.)

Centre.	No. of times the Centre was open in		No. of children on the books in		No. of attendances of children in		Average weekly attendance of children in		No. of deaths of children in		No. of children who had orthopaedic treatment in		No. of children referred to the Dental Clinic in		No. of nursing mothers referred to the Dental Clinic in		No. of defects and ailments in	
	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.	1931.	1930.
Barnet	49	45	300	284	2,445	2,103	50	47	2	1	2	10	3	92	67			
Hemel Hempstead	50	46	242	223	1,920	1,198	31	26	1	—	—	—	—	30	29			
Hertford	52	51	290	382	2,803	3,058	54	60	3	2	2	14	3	66	52			
Waltham Cross	50	50	335	323	3,270	3,540	65	68	—	1	3	16	7	56	57			
Ware Voluntary Centre	50	51	232	220	1,786	1,018	36	20	1	—	5	5	2	50	25			
Total	251	243	1,399	1,382	11,864	10,917	48	41	7	4	12	45	15	294	230			

The monthly lectures to the mothers were continued, and the following subjects were taken :—

1. Breast Feeding.
2. The Weaning of Infants.
3. The Management of Infants.
4. The Management of Children—1-5 Years.
5. The Development of Babies and Children.
6. The Fly. Its Menace to Health and How to Combat It.
7. Summer Diarrhœa.
8. Food.
9. Waste Material.
10. Vaccination.
11. Whooping-cough and Measles.
12. Some Minor Ailments.

Our thanks are again due to the Voluntary Workers for their help during the past year.

HEALTH VISITORS, NURSES, AND MIDWIVES.

There is little new to report regarding the routine work carried out by the health visitors, nurses, and midwives in the County. With increasing population and increasing duties placed on the County Council their work tends to increase each year and to become more varied in character. In addition to the nursing of the sick the nurse now undertakes special duties in connection with school medical inspection, tuberculosis, maternity and child welfare, mental deficiency, infant life protection, etc., all of which emphasize the varied character of her work. At the present time there are 112 health visitors, including three whole-time and one part-time County Council nurses.

The lectures to the midwives and nurses have been continued during the year and have been much appreciated. The provision of such lectures which are of a practical character is of value in raising and maintaining the standard of efficiency of the work of the midwives in the County. This is of importance in relation to the prevention of, and the securing immediate treatment for, maternal complications. Generally speaking, the standard of work of the midwives is good.

In the following report Miss Harrington, the County Health Visitor, Inspector of Midwives, and County Superintendent of Nurses, gives full particulars of the work of the health visitors, nurses, and midwives during the year. Amongst the babies visited by the health visitors the infant mortality was 16·8, compared with 18·8 last year, and of the 2,889 maternity cases attended by the midwives five died, giving a maternal mortality of 1·7 per 1,000. Of the infants visited by the health visitors 59·1 per cent were breast-fed and 77·7 per cent were up to standard average weight.

*ANNUAL REPORT OF THE INSPECTOR OF MID-
WIVES AND COUNTY HEALTH VISITOR FOR THE
YEAR 1931.*

During the year 1931 the Health Visiting Work has been carried out by the 112 Health Visitors, including three whole-time and one part-time County Council nurses.

Of the 5,048 babies born alive during 1930 (excluding Watford Urban District) 4,220 have been visited by the Health Visitors, a percentage of 83·5 per cent.

Of the babies visited, 71 died before reaching the age of one year, showing a mortality of 16·8 per 1,000; 549 babies left the County before completing their first year. In all cases where the address could be obtained, it was forwarded to the local Health Authority.

From the Health Visitors' returns it is shown that 2,497 or 59·1 per cent of the infants were breast-fed, 1,290 or 30·5 per cent were partly breast-fed and 396 or 9·3 per cent were bottle-fed; 1,047 or 24·8 per cent used dummies, and 1,248 or 29·5 per cent were vaccinated; 3,279 or 77·7 per cent were up to the average weight.

The work of the Health Visitors is shown in Table 15.

STATEMENT OF WORK AS INSPECTOR OF MIDWIVES AND COUNTY
HEALTH VISITOR FOR THE YEAR 1931.

Inspection of Midwives and Special Visits	1,546
Visits to Health Visitors, Nurses, and Doctors	925
Attendances at Committee Meetings	107
Attendances at County Council and Voluntary Infant Welfare Centres and Schools	402
Letters, Circulars, etc., under Midwifery Act and Notification of Births Act	12,599

STATISTICS OF MIDWIVES PRACTISING IN THE COUNTY.

There were 203 trained midwives practising in the County on the 1st January, 1932. In addition there were 45 temporary midwives and 32 who have left or retired, making a total of 280 practising in 1931.

Of those in practice on the 1st January, 1932, 41 are in private practice and 123 work for Nursing Associations. Five are employed by the County Council and 34 in institutions.

In 1931 the total number of cases was 5,899, excluding stillbirths. The midwives attended 4,485 cases. Of these 1,596 were with a doctor engaged and included 47 or 2.9 per cent stillbirths; 2,889 were attended by the midwives alone and included 38 or 1.3 per cent stillbirths.

The number of infants who died before the tenth day was 33 in midwives' cases born alive, being a mortality of 11.5 per 1,000. Of the 33 infants who died before the tenth day, 15 were premature. In addition to these cases, the midwives attended 124 abortions with a doctor.

1,431 expectant mothers have attended ante-natal clinics. The number of ante-natal visits paid by the midwives was 14,599.

MATERNAL MORTALITY.

In the 2,889 cases attended by the midwives, there were five maternal deaths, or 1.7 per 1,000.

MEDICAL AID AND ANY OTHER NOTIFICATIONS RECEIVED.

The number of Medical Aid notices was 718 or 24.8 per cent.

TABLE 24.
MIDWIVES AND THEIR WORK FOR THE YEAR 1931.

DISTRICT.	POPULATION.	TOTAL BIRTHS.		BIRTHS ATTENDED BY MIDWIVES.		INFANTS' DEATHS.			NOTIFICATIONS.				MATERNAL DEATHS FOR WHOLE COUNTY MIDWIVES.	NUMBER OF MIDWIVES.				Total
		Legitimate.	Illegitimate.	Midwife.	With Doctor.	Under one Year.	Rate per 1,000.	Midwives' cases under Ten Days.	Medical Aid.		Stillbirths.			Private.	Nursing Associations.	County Council.	Institutions.	
									Mother.	Child.	With Doctor.	Midwife.						
Urban.																		
1. Baldock	3,161	52	...	24	27	1	19'2	...	6	7	2	...	...	...	1	...	...	...
2. Barnet	14,510	184	7	35	39	12	62'8	1	12	2	...	...	...	4	...	...	...	8
3. Berkhamstead	8,431	96	3	71	25	1	10'1	1	15	1	1	...	...	...	4	...	...	1
4. Bp's. Stortford	9,735	127	6	60	51	9	67'6	...	10	4	...	1	...	...	4	...	...	4
5. Bushey	11,460	150	11	47	12	5	31'0	...	14	2	...	2	...	1	1	...	...	...
6. Cheshunt	14,720	214	10	69	77	14	62'5	3	13	4	...	...	...	3	5	...	...	...
7. Chorleywood ...	3,192	36	2	3	17	1	26'3	...	...	...	2	...	...	...	1	...	...	...
8. E. Barnet Valley	18,600	278	7	79	51	23	80'7	1	16	3	3	1	...	2	3	...	...	...
9. Harpenden	8,349	83	2	51	31	7	82'3	...	19	3	2	4	...	...	4	...	...	...
10. H. Hempstead	15,120	208	9	130	75	9	41'4	...	17	3	1	...	...	1	3	...	...	6
11. Hertford	11,610	170	11	115	58	6	33'1	2	26	5	1	1	...	...	4	...	...	4
12. Hitchin	14,350	204	10	71	121	11	51'4	2	41	8	1	2	...	4	2	3	1	10
13. Hoddesdon	6,759	116	6	78	43	6	49'1	1	29	3	3	...	...	2	3	...	...	...
14. Letchworth	14,430	210	7	76	92	9	41'4	...	29	...	2	2	3	6	...	1	...	...
15. Rickmansworth	10,740	187	2	112	29	9	47'6	...	15	5	2	2	...	...	3	...	...	...
16. Royston	3,793	46	1	25	13	3	63'8	1	4	7	...	1	...	...	1	...	...	...
17. St. Albans	28,460	360	21	214	95	20	52'4	2	29	5	4	4	...	3	4	...	4	11
18. Sawbridgeworth	2,565	28	1	14	13	2	68'9	1	6	...	...	1	...	...	2	...	...	...
19. Stevenage	5,515	79	3	46	23	4	48'7	1	10	3	...	1	2	...	2	...	...	...
20. Tring	4,329	62	2	19	24	4	62'5	...	8	1	...	...	...	...	...	1	...	...
21. Ware	6,070	89	1	60	22	9	100	2	6	4	1	1	...	...	3	...	1	4
22. Watford	56,500	793	36	587	187	43	51'8	4	95	16	5	8	...	5	7	...	5	17
23. Welwyn G'n C.	8,601	184	4	43	35	1	5'3	1	8	1	...	...	...	2	4	...	...	6
Total for U.D. ...	281,000	3,956	162	2,029	1,160	209	30'7	23	428	87	30	31	5	33	62	5	34	133
Rural.																		
1. Ashwell	3,488	47	1	25	17	...	...	...	4	3	...	...	...	1	3	...	...	4
2. Barnet	6,312	121	1	38	31	9	73'7	1	7	2	...	...	...	1	3	...	...	4
3. Berkhamstead	5,252	78	3	36	26	4	49'3	...	3	...	2	...	...	...	4	...	...	4
4. Buntingford	4,582	60	4	22	15	1	15'6	...	9	1	...	...	...	2	...	...	...	2
5. Hadham	5,426	59	3	28	14	4	64'5	1	2	2	...	1	...	1	3	...	...	4
6. Hatfield	11,260	195	9	49	54	5	24'5	1	3	1	3	...	...	1	5	...	...	6
7. H. Hempstead	8,276	126	4	94	30	3	23'0	1	14	4	...	...	...	1	6	...	...	7
8. Hertford	7,581	92	4	39	25	2	20'8	...	8	4	1	...	...	...	5	...	...	5
9. Hitchin	14,590	201	10	158	43	6	28'4	...	31	1	3	3	...	2	8	...	...	10
10. St. Albans	19,630	296	12	138	67	13	42'2	2	29	4	1	1	...	1	6	...	...	7
11. Ware	12,290	132	8	92	45	6	42'8	2	29	5	2	2	...	...	9	...	...	9
12. Watford	18,530	236	6	107	56	10	41'3	...	12	3	5	...	...	1	6	...	...	7
13. Welwyn	3,683	70	3	34	13	2	27'3	2	20	2	...	...	...	...	1	...	...	1
Total for R.D. ...	120,900	1,713	68	860	436	65	36'4	10	171	32	17	7	...	8	61	...	...	70
Total for U.D. ...	281,000	3,956	162	2,029	1,160	209	30'7	23	428	87	30	31	5	33	62	5	34	133
Total for County	401,900	5,669	230	2,889	1,596	274	46'4	33	599	119	47	38	5	41	123	5	34	203

TABLE 25.

BIRTHS NOTIFIED UNDER "THE NOTIFICATION OF BIRTH ACT, 1907."

From January 1st to December 31st, 1930.

DISTRICTS.	Births.		Cases attended.		Stillborn.		Premature.	Infants visited by Health Visitors.			Death-rate per 1,000 of the infants under 1 year for the County, excluding Watford.	No. of Health Visitors.
	Notified.	Returned by Registrar.	By Doctor.	By Midwife.	Doctors' Cases.	Midwives' Cases.		Visited.	Died under 1 year.	Death-rate per 1,000 visited.		
Urban.												
1. Baldock ...	54	1	31	24	5	—	1	48	—	—	25·0	1
2. Barnet ...	319	8	277	50	17	2	22	118	2	16·9	56·8	1
3. Berkhamstead ...	123	2	34	91	—	5	1	100	2	20·0	95·2	4
4. Bishop's Stortford ...	145	6	68	83	8	1	9	118	2	16·9	61·5	3
5. Bushey ...	136	18	107	47	3	1	2	110	—	—	—	1
6. Cheshunt ...	202	12	131	83	—	4	6	194	—	—	31·5	4
7. Chorleywood ...	26	9	29	6	1	—	5	22	—	—	40·8	1
8. E. Barnet Valley ...	226	25	167	84	3	—	9	188	5	26·5	51·6	3
9. Harpenden ...	108	4	45	67	1	1	4	81	3	37·0	30·6	3
10. Hemel Hempstead ...	223	20	92	151	4	3	16	221	1	4·5	26·5	3
11. Hertford ...	174	8	73	109	—	6	11	161	2	12·4	35·7	4
12. Hitchin ...	218	—	114	104	6	2	10	183	5	27·3	38·7	2
13. Hoddesdon ...	113	11	53	71	6	1	14	105	2	19·0	63·6	3
14. Letchworth ...	191	2	103	90	10	—	6	156	—	—	20·1	2
15. Rickmansworth ...	151	15	76	90	4	2	4	124	6	48·3	38·7	3
16. Royston ...	42	3	28	17	1	1	1	36	1	27·7	—	1
17. St. Albans ...	429	20	192	257	9	3	29	305	5	16·3	53·4	2
18. Sawbridgeworth ...	44	—	20	24	1	—	4	43	3	69·7	71·4	2
19. Stevenage ...	76	4	41	39	2	—	2	65	3	46·1	50·0	2
20. Tring ...	65	1	47	19	2	—	—	60	—	—	—	1
21. Ware ...	119	5	31	93	2	—	8	109	2	18·3	90·9	3
22. Welwyn Garden City	158	10	114	54	4	1	8	149	—	—	43·4	1
Total for Urban Districts	3,342	184	1,873	1,653	89	33	172	2,696	44	16·3	43·1	50
Rural.												
1. Ashwell ...	50	2	21	31	—	1	2	47	—	—	37·7	3
2. Barnet ...	129	1	98	32	4	1	4	99	5	50·5	62·5	3
3. Berkhamstead ...	100	1	45	56	4	1	4	88	4	45·4	35·2	4
4. Buntingford ...	61	1	37	25	2	—	5	54	—	—	78·1	2
5. Hadham ...	71	—	42	29	—	1	3	68	2	29·4	53·3	4
6. Hatfield ...	164	43	160	47	6	—	14	160	3	18·7	47·1	5
7. Hemel Hempstead ...	160	5	100	65	1	3	7	145	2	13·7	25·6	6
8. Hertford ...	118	4	42	80	2	1	6	113	1	88·4	42·3	5
9. Hitchin ...	237	12	86	163	6	1	10	217	2	9·2	30·0	8
10. St. Albans ...	214	11	111	114	8	1	6	205	4	19·5	25·4	6
11. Ware ...	144	7	63	88	3	2	9	123	2	16·2	31·2	8
12. Watford ...	194	20	113	101	2	—	9	162	2	12·3	35·3	7
13. Welwyn ...	62	1	31	32	6	—	5	43	—	—	30·7	1
Total for Rural Districts	1,704	108	949	863	44	12	84	1,524	27	17·7	37·5	62
Total for Urban Districts	3,342	184	1,873	1,653	89	33	172	2,696	44	16·3	43·1	50
Total for County	5,046	292	2,822	2,516	133	45	256	4,220	71	16·8	41·2	112

TABLE 26.
TABLE OF HEALTH VISITORS' WORK CARRIED OUT UNDER THE NOTIFICATION OF BIRTH ACT, 1907-15.

District and Health Visitor.	Parishes in each District.	Population Covered.	No. of New Homes Visited.	No. of Babies under Supervision, 31st Dec., 1931.	Health Visits to Mothers and Babies	Health Visitors' Attendances at Maternity Centre.	No. of Cases as Midwife and Maternity Nurse and Visits.	No. of 1-5 Children under Supervision, 31st Dec., 1931.	Visits to These.
No. 1 : Miss Milner .	Barnet, Arkley, Totteridge, Cuffley, Little Heath and Northaw.	17,207	181	132	1,210	47		589	1,725
No. 2 : Miss Shore .	Tring Urban District .	4,364	37	43	681	43	36 cases 1,142 visits	168	680
No. 3 : Miss Wells and Miss Housden Nurses working under the County Nursing Association.	Letchworth and Willian .	14,454	127	177	1,792	88		602	1,430
		298,608	3,875	3,867	62,045	2,310		12,450	67,017
		334,633	4,220	4,219	65,728	2,488		13,809	70,852

SANITARY SERVICES IN THE COUNTY.

The following is an up-to-date summary of the sanitary and special services provided by Local Sanitary Authorities in the County.

Urban Districts.

BALDOCK.

- | | | |
|---------------------|---|---|
| Water Supply | . | Adequate supply from First Garden City, Ltd., Pumping Station for practically whole district ; few wells. |
| Sewage Disposal | . | Public system for whole district ; disposal works near Icknield Way. Sewage enters large tank after screening and is pumped into a reservoir twice daily, and then run on to land under cultivation and treated by systematic broad irrigation. |
| Scavenging | . | Once weekly in covered conveyance. |
| Infectious Diseases | . | Cases sent by arrangement to Letchworth Hospital ; swabs examined at Clinical Research Association ; antitoxin supplied when required ; no steam disinfectant provided ; clothing and houses disinfected with paraformaldehyde and formalin. |
| Housing | . | Twelve houses built during 1931. |

BARNET.

- | | | |
|---------------------|---|---|
| Water Supply | . | Public supply for the whole district from the Barnet and District Gas and Water Co., from wells sunk into the chalk ; the supply is adequate. |
| Sewage Disposal | . | Water carriage system for the whole district except in older portions of district, where combined system obtains. Certain outlying properties are drained to cesspools ; part of Totteridge is drained into Finchley sewer. Sewage Farm is situated in Mays Lane, and is 56 acres in extent ; method of disposal : three rotary filters, detritus and sedimentation tanks, and land irrigation ; pumping is necessary for one sewer ; some extension of the system is contemplated. |
| Scavenging | . | Weekly collection for whole district in covered conveyance. |
| Infectious Diseases | . | Cases of infectious diseases removed to Barnet Joint Isolation Hospital ; swabs examined by arrangement with Clinical Research Association ; supplies of antitoxin kept for local practitioners. A steam disinfectant is available ; houses are fumigated with formaldehyde. |
| Housing | . | Forty-four houses and thirty flats are contemplated or being built under the Housing Acts. |

BERKHAMPSTEAD.

- | | | |
|--------------|---|---|
| Water Supply | . | Public supply for practically the whole district from the Berkhamstead Water Company, which also supplies adjoining districts ; supply is adequate ; there are a few wells. |
|--------------|---|---|

- Sewage Disposal** . . . Conservancy system for whole district; sewage disposal works at Broadway, Berkhamstead, consist of septic tanks and rotary percolating filters, effluent discharged to Grand Union Canal; system also serves Northchurch Village, Berkhamstead Rural; a large extension is nearing completion.
- Scavenging** . . . Weekly collection for whole district in covered conveyance.
- Infectious Diseases** . . . Cases admitted to Aldbury Hospital; cost of examination of swabs reimbursed to medical practitioners; antitoxin supplied by Council through Sanitary Inspector; steam disinfectant available; disinfection carried out by sanitary staff.
- Housing** . . . Forty-six houses completed under Housing Acts during 1931.

BISHOP STORTFORD.

- Water Supply** . . . Adequate supply from deep wells, which serves whole district.
- Sewage Disposal** . . . Public system for greater part of district; there are about fifty cesspools, which will be dispensed with when new sewer is completed. Sewage gravitates to tanks, is screened and pumped on to high level, and is dealt with by broad land irrigation; effluent to River Stort. Extension of land for irrigation may be necessary at some future date. Disposal works outside district in Essex.
- Scavenging** . . . Weekly in covered conveyance.
- Infectious Diseases** . . . Cases admitted by special arrangement to Isolation Hospital; swabs sent to Counties Public Health Laboratory; antitoxin kept at Isolation Hospital; steam disinfectant at Isolation Hospital. Houses disinfected with formaldehyde.
- Housing** . . . Forty-five houses under 1924 Act and six under the 1930 Act.

BUSHEY.

- Water Supply** . . . Adequate supply for whole district from Colne Valley Water Co.
- Sewage Disposal** . . . Public system for whole district with the exception of the northern part and a few small areas. Disposal works have recently been extended, and will now deal with sewage from population of 17,000; anaerobic and aerobic methods of treatment are adopted; percolating filters and filtration through sand; experiments as to digestion of sludge being carried out.
- Scavenging** . . . Weekly collection in covered conveyance.
- Infectious Diseases** . . . Cases admitted to Watford Joint Hospital, which serves district; swabs sent to Clinical Research Association; antitoxin kept by Council. Steam disinfectant at Isolation Hospital, where disinfection carried out. Houses disinfected by Sanitary Inspector.
- Housing** . . . Thirty-eight houses were completed during 1931.

CHESHUNT.

- Water Supply . . . Public supply for practically whole district from Metropolitan Water Board, private wells in a few country houses.
- Sewage Disposal . . . Public system for whole district except some country houses. Sewage disposal works on Cheshunt Marsh in Parish of Enfield, consists of septic tanks, revolving sprinklers, humus tanks, and filtration over several acres of ground.
- Scavenging . . . Weekly collection in covered conveyance.
- Infectious Diseases . . . Cases removed to Cheshunt Isolation Hospital; examination of swabs arranged by M.O.H. Antitoxin kept at U.D.C. Offices and house of M.O.H. No local disinfectant available, but there are arrangements for disinfection with Enfield; house disinfection by formalin lamps.
- Housing . . . Number of houses contemplated or being built under the Housing Acts, 136.

CHORLEYWOOD.

- Water Supply . . . Adequate supply for practically the whole district from the Rickmansworth and Uxbridge Valley Water Co.; three private wells.
- Sewage disposal . . . Public system for greater part of district. Few cesspools. Disposal works at Maple Cross consist of detritus and screening chamber, two sedimentation tanks, three primary and secondary filters, and two humus tanks; effluent to tributary of River Colne.
- Scavenging . . . Collection weekly in covered conveyance.
- Infectious Diseases . . . Cases admitted to Joint Hospital serving district; swabs sent to Clinical Research Association. Antitoxin kept by Council. Steam Disinfectant at Isolation Hospital; houses disinfected by Sanitary Inspector.
- Housing . . . No new houses completed in 1931; total number of houses owned by Local Authority, 57.

EAST BARNET VALLEY.

- Water Supply . . . Adequate supply from the Barnet District Gas and Water Co. from wells and borings; whole district served.
- Sewage Disposal . . . Public system for whole district except for small number of isolated houses. Disposal works situated at Brunswick Park Road at junction with Osidge Lane; sewage conveyed by five main sewers; the sewage from two of these passes through Dortmund tanks, and then on to land; the sewage from the three remaining sewers passes directly on to the land; farm is land drained, all land drains lead to settling tanks, which feed a series of percolating filters; effluent discharged into Pymmes Brook.
- Scavenging . . . Weekly collection for greater part in covered conveyance.
- Infectious Diseases . . . Cases to Barnet Isolation Hospital; swabs sent for examination to Clinical Research Association; supplies of antitoxin kept by Council. Steam disinfectant available at Isolation Hospital. Rooms and contents sprayed with formalin.
- Housing . . . Scheme for clearance of a special area is under consideration.

HARPENDEN.

- Water Supply** . Adequate supply from Harpenden Water Co. from deep wells for almost whole district ; a few wells. Company also supplies Wheathampstead and Batford.
- Sewage Disposal** . Public system except for outlying farms. Disposal works on eastern boundary of district. Slate beds, tanks, and percolating filters ; also serves part of St. Albans Rural District.
- Scavenging** . Weekly collection in covered conveyance.
- Infectious Diseases** . Cases to St. Albans Hospital ; swabs sent to Royal Institute of Public Health. Antitoxin kept by Council. Disinfecter available at St. Albans Isolation Hospital, to which clothes are sent. House disinfection by formalin spray and lamps.
- Housing** . Twenty-two houses completed during 1931. Financial assistance to Workmen's Housing Association for the erection of 72 houses.

HEMEL HEMPSTEAD.

- Water Supply** . Adequate supply from two borings for whole district, with the exception of about a dozen houses, mostly at Bourne End ; also supplies parts of St. Albans Rural District (Leverstock Green) and Watford Rural District (portion of Nash Mill District).
- Sewage Disposal** . Public system except for outlying farms ; disposal works at Bennetts End ; sewage is pumped from Apsley and passes through sedimentation tanks and percolated filters, and is finally treated by broad irrigation. System also serves portion of Leverstock Green in St. Albans Rural District.
- Scavenging** . Weekly collection in covered conveyance.
- Infectious Diseases** . Cases to Joint Isolation Hospital ; swabs sent to Clinical Research Association ; antitoxin supplied from Public Health Department ; steam disinfecter at Isolation Hospital. Houses disinfected by formalin spray and lamps.
- Housing** . Seventy-two houses completed in 1931, 30 being constructed, and 80 to be erected.

HERTFORD.

- Water Supply** . Adequate supply for whole district from wells in chalk owned by Corporation ; supplies part of Hertford Rural District.
- Sewage Disposal** . Public system for whole district ; disposal works within eastern boundary of borough consist of detritus tanks, sedimentation tanks, and activated sludge tanks and sludge digestion. Part of Hertford Rural District is served by system ; no extension beyond necessary sewage extensions.
- Scavenging** . Weekly, in covered freighter ; disposed by controlled tippy on Bradford system.
- Infectious Diseases** . Cases to Hertford and Ware Joint Hospital ; swabs examined at Counties Public Health Laboratories, Antitoxin at Isolation Hospital ; steam disinfecter at Isolation Hospital ; houses disinfected with formaldehyde.
- Houses** . Houses being built or to be erected Horns Road site, 97 ; Hertingfordbury Road site, 79.

HITCHIN.

- Water Supply . Adequate public supply for whole district except small hamlet of Charlton and few houses ; new boring just been made at Temple End ; also supplies Ippollitts and Ickleford in Hitchin Rural District.
- Sewage Disposal . Public system for whole district except Charlton and few scattered houses ; extended within last two years. Disposal works at Grove Road consist of tanks and percolating filters. System also serves few scattered houses outside the Urban District.
- Scavenging . Weekly collection in covered conveyance.
- Infectious Diseases . Cases sent by arrangement with the Joint Isolation Hospital ; swabs examined at cost of Council ; antitoxin supplied free of cost. Steam disinfector at Isolation Hospital ; house disinfection by spraying disinfectant fluid followed by formaldehyde gas fumigation.
- Housing . Number of houses in course of erection, 166.

HODDESDON.

- Water Supply . Adequate supply for practically whole district from deep well in chalk ; also serves small number of houses in Ware Rural District ; few private wells.
- Sewage Disposal . Main sewerage scheme, separate for soil and surface water ; whole district served except for few isolated houses. Disposal works in north-east of district consist of detritus and settling tanks, contact beds, and rotary percolating filters ; sewage taken from houses in Amwell Parish. Council have under consideration electrification scheme of pumping machinery and extension of works.
- Scavenging . Weekly collection in covered conveyance.
- Infectious Diseases . Cases to Hertford and Ware Isolation Hospital ; swabs sent to Counties Public Health Laboratories ; antitoxin kept at Isolation Hospital. Steam disinfector at Western House Institution, to which infected clothing is sent ; houses disinfected by sanitary staff.
- Houses . Forty-four built during 1931 ; 19 new houses to be erected.

LETCHEWORTH.

- Water Supply . Adequate supply for whole district from pumping station ; four borings at Weston Hill ; also supplies part of Hitchin Rural District and Baldock Urban.
- Sewage Disposal . Whole district served except for few houses and farms in isolated positions ; separate systems for sewage and surface water sewage to sewage farm and surface water empties into Pix Brook. Disposal works just beyond north-western boundary in Biggleswade R.D.C. ; consist of settling tanks, with primary and secondary filtration ; effluent discharged into Pix Brook. Proposed extension of system to include new sewer to serve proposed housing scheme. System serves Isolation Hospital in Hitchin Urban District.

- Scavenging . . . House refuse weekly, trade refuse daily in some instances ; covered freighters.
- Infectious Diseases . . . Cases admitted to Hospital of Hitchin Rural and Letchworth Urban Joint Board ; swabs sent to Thresh and Beale, London ; antitoxin kept at Isolation Hospital. Steam disinfectant at Isolation Hospital ; disinfection of houses carried out by Sanitary Inspector.
- Housing . . . Fifty new houses completed in 1931. There is a proposed scheme for 50 additional houses.

RICKMANSWORTH.

- Water Supply . . . Adequate supply for practically whole district from Rickmansworth and Uxbridge Valley Water Co. ; a few isolated houses supplied from wells.
- Sewage Disposal . . . Public scheme for whole district, except Heronsgate and isolated houses. Sewage gravitates to pumping stations and is pumped on to land ; septic tanks and land irrigation. A few houses in Chorleywood and in Watford Rural District drain into system.
- Scavenging . . . Weekly in covered conveyance.
- Infectious Diseases . . . Cases to Watford Joint Isolation Hospital ; swabs sent to Clinical Research Association ; antitoxin kept at Council Offices. Infection clothing sent for disinfection to Isolation Hospital ; house disinfection carried out by Council's staff.
- Housing . . . Fifty-two houses are now being erected.

ROYSTON.

- Water Supply . . . Adequate public supply for whole district.
- Sewage Disposal . . . Public system for whole district : a few cesspools and earth-closets on outskirts.
- Scavenging . . . Weekly collection in whole district.
- Infectious Diseases . . . Cases to Joint Hospital, but only one disease can be admitted ; swabs and antitoxin paid for if necessary.
- Housing . . .

ST. ALBANS.

- Water Supply . . . Adequate supply for whole district from St. Albans Water Works Co. ; parts of surrounding districts also supplied.
- Sewage Disposal . . . Public system for whole district ; sewage disposal works at Park Street consist of septic tanks with sprinklers and primary and secondary filtration ; some extension of the system is contemplated.
- Scavenging . . . Weekly collection in covered conveyance, daily in shopping area.
- Infectious Diseases . . . Cases admitted to St. Albans Isolation Hospital ; swabs sent to Clinical Research Association ; antitoxin kept at Council Offices. Steam disinfectant at Isolation Hospital ; houses disinfected by formalin lamps.
- Housing . . . During 1931 the number of houses being built was 168 ; number to be erected, 134.

SAWBRIDGEWORTH.

Water Supply	Adequate supply for whole district, with the exception of the outlying hamlet of Spelbrook, from the Herts and Essex Waterworks Co.; shallow wells at Spelbrook.
Sewage Disposal	Public system for whole district, with exception of Spelbrook; sewage by gravitation to sewage farm. Disposal works in south-east of district consist of septic tanks and filter beds; effluent River Stort.
Scavenging	Twice weekly collection in covered conveyance.
Infectious Diseases	Cases admitted to Isolation Hospital; swabs sent to Public Health Laboratories, London; anti-toxin kept by Medical Officer of Health. Steam disinfectant at Isolation Hospital; house disinfection by Sanitary Inspector.
Housing	Twenty new houses being built.

STEVENAGE.

Water Supply	Adequate supply but with a small margin for greater part of district; wells for outlying farms and cottages. Supply obtained from deep bore-holes at Rooks Nest, also supplies Graveley and part of Great Wymondley.
Sewage Disposal	Public system for whole town except few houses on outskirts. Disposal works are to the south of the town, adjoining Great North Road. Consists of filter beds.
Scavenging	Weekly collection in covered conveyance.
Infectious Diseases	Arrangements for admission of cases to Herts and Ware Isolation Hospital; swabs sent to laboratory in London; antitoxin provided in necessitous cases. No steam disinfectant provided; rooms disinfected by formaldehyde vapour or spray.
Housing	No houses erected during 1931; during 1932 80 new houses are to be erected.

TRING.

Water Supply	Adequate supply from Chiltern Hills Spring Water Co. available for whole district except Bulbourne hamlet, but many houses are not connected; deep wells and some shallow wells at Bulbourne. Adjoining district also supplied with Company's water.
Sewage Disposal	Public system for whole district, except outlying hamlets; disposal works on west side of Tring Ford Reservoir. Sewage pumped to high level after having passed through screening and settling tanks, and is treated by broad irrigation; land is under-drained, and effluent runs into a brook running into Tring Ford Reservoir.
Scavenging	Weekly collection in covered conveyance.
Infectious Diseases	Cases to Urban District Isolation Hospital; swabs sent to Clinical Research Association; antitoxin at office of Sanitary Inspector. Steam disinfectant at Isolation Hospital; houses disinfected with formalin lamps.
Housing	No new houses being erected.

WARE.

- Water Supply** . Adequate supply for whole district from deep wells the property of the Council ; also supplies portion of adjoining rural area.
- Sewage Disposal** . Public system for whole district ; disposal works at Rye Farm, near Hoddesdon, which consists of 140 acres ; sewage pumped from pumping station at Stanstead Abbots to farm, treatment by broad irrigation. System also serves adjoining rural area.
- Scavenging** . Weekly collection in covered conveyance.
- Infectious Diseases** . Cases admitted to Joint Isolation Hospital ; swabs are sent to Counties Public Health Laboratories ; antitoxin kept at Isolation Hospital. Steam disinfectant at Isolation Hospital to which infected clothing is sent ; houses disinfected by Sanitary Inspector.
- Housing** . The number of houses contemplated or being built during 1931 is 116.

WATFORD.

- Water Supply** . Adequate supply for whole district mainly from deep wells owned by Corporation. Oxhey supplied by Colne Valley Water Works Co., and Garston supplied by Rickmansworth and Uxbridge Valley Co. Part of Watford Rural supplied.
- Sewage Disposal** . Public System for whole district. Disposal works at Holywell Farm, 130 acres ; 40 acres retained for system of intermittent downward filtration, a further 40 acres being kept in reserve. There are a few cesspools at Garston, but main sewer is being constructed to this district.
- Scavenging** . Collection once per week in covered conveyances ; in special cases collection once daily.
- Infectious Diseases** . Cases admitted to Isolation Hospital ; swabs now sent to Peace Memorial Hospital ; antitoxin kept at Council Offices. Steam disinfectant at Isolation Hospital ; houses disinfected by Sanitary Inspectors with formalin and spraying.
- Housing** . There were 98 houses either completed or in course of erection during 1931. There are 130 more houses which it is intended to erect in order to replace demolition which has not yet taken place.

WELWYN GARDEN CITY.

- Water Supply** . Adequate supply from Welwyn Garden City, Ltd., from boreholes in the middle chalk in the Mimram Valley ; whole district served except for few houses which have well supplies. Bulk supply given by Welwyn Garden City, Ltd., to the Rural District of Welwyn. The Urban District Council of the Welwyn Garden City are promoting a Bill to acquire the water undertaking.
- Sewage Disposal** . Public system for whole district except the village Hatfield Hyde and about twenty outlying cottages. Disposal works are situate in the Black Fan Valley, and consist of detritus tanks screening chambers, sedimentation tanks, and filters. The Urban District Council propose to purchase the sewage disposal works with effect from 1st April, 1932 ; extensions are contemplated.

Scavenging . . .	Collection once a week in covered conveyance, and twice weekly from hotels, restaurants, and hospital.
Infectious Diseases . . .	Arrangements made for admission of cases to Letchworth Isolation Hospital or Herts and Ware Isolation Hospital; swabs sent to Counties Public Health Laboratories, London; antitoxin kept at Cottage Hospital. No steam disinfectors for district; clothing may be sent to Letchworth Hospital. Izal is supplied to infected houses; rooms disinfected with formalin candles and vapour.
Housing . . .	Thirty-three houses completed in 1931, 56 additional houses are to be built in 1932.

Rural.

ASHWELL.

Water Supply . . .	Public supply to special Drainage District and few public pumps from deep well in chalk; other sources of supply are deep wells, shallow wells, rain-water storage tanks, and ponds.
Sewage Disposal . . .	Public service for Ashwell Special Drainage District only; disposal works consist of two septic tanks and broad irrigation.
Scavenging . . .	No collection.
Infectious Diseases . . .	Cases of infectious disease to Joint Isolation Hospital, which can only admit one disease, and elsewhere by arrangement. Steam disinfectors at Isolation Hospital, but only used for hospital purposes; house disinfection by spraying and fumigation.
Housing . . .	Number of houses to be erected but not commenced, 32.

BARNET.

Water Supply . . .	Adequate supply for greater part of district from Barnet District Gas and Water Co., Colne Valley Water Co., and a few houses served by the St. Albans Water Co.; about half a dozen shallow wells
Sewage Disposal . . .	Part of district has public system. There are three disposal works at St. Catherine Bourne, Shenley, Filehouse Farm, Boreham Wood, and Medburn Farm, Elstree. The two former have sedimentation tanks and percolating filters, and the latter has sedimentation tanks and treatment broad irrigation. Two schemes of sewer construction are at present in progress. Parts of Watford Rural District and few houses in Hendon Urban District are served by the system.
Scavenging . . .	Weekly collection in most of the area, covered conveyance not general.
Infectious Diseases . . .	Cases of infectious disease to Barnet Joint Isolation Hospital; swabs examined at Clinical Research Association; antitoxin provided as required. Steam disinfectors at Isolation Hospital; houses disinfected by formalin lamps or spray.
Housing . . .	Fifty houses completed in 1931.

BERKHAMPSTEAD.

Water Supply . . .	Considerable part of district served by Great Berkhamstead Waterworks Co., Chiltern Hills Spring Co., and Ashridge Water Co.; supply also obtained from private wells.
Sewage Disposal . . .	Public system for part of district. Cesspools and earth-closets. Disposal works at Northchurch village—septic tanks and percolating filters, Long Marston broad irrigation, and Wilstone broad irrigation.
Scavenging	Weekly collection at Northchurch; fortnightly, monthly, and two-monthly at other districts. Covered conveyance for Northchurch.
Infectious Diseases . . .	Cases of infectious disease sent to Aldbury Isolation Hospital. Examination of swabs provided for. Council pays for antitoxin obtained by medical practitioners. No steam disinfecter available; houses disinfected by formalin lamp.
Housing	Eight houses built during 1931; four commenced in 1931; six additional houses to be erected.

BUNTINGFORD.

Water Supply	Buntingford has public supply from deep wells; works are Council property. Other sources of supply are natural spring and deep and shallow wells.
Sewage Disposal	Public system to part of district; remainder of district has cesspools and pail-closets. Disposal works at south end of Buntingford; treatment by broad irrigation.
Scavenging	Weekly collection in covered conveyance for Buntingford town only.
Infectious Diseases . . .	Cases sent to Buntingford Isolation Hospital; swabs examined at London laboratory; anti-toxin at office of Sanitary Inspector. There is a small disinfecter at the hospital. Houses disinfected by means of formaldehyde.
Housing	No new houses built during 1931, but 18 are contemplated for 1932.

HADHAM.

Water Supply	Public supply for Much Hadham and surrounding hamlets from deep well in chalk; rest of district supplied by wells, many of which are deep wells. High Wych supplied by Herts and Essex Water Co.
Sewage Disposal	Public system for parts of district; disposal works at south end of Much Hadham, treatment by broad irrigation; also at High Wych. Braughing (part of) has small irrigation area for slop water.
Scavenging	Weekly collection for Much Hadham and part of Braughing.
Infectious Diseases . . .	Cases to Joint Isolation Hospital at Bishop's Stortford; swabs to Counties Public Health Laboratories; antitoxin kept at Isolation Hospital. Steam disinfecter at Isolation Hospital, to which infected clothing is sent; houses are disinfected by formaldehyde.
Housing	Six houses are being erected at Much Hadham and twelve houses are to be erected at Braughing.

HATFIELD.

- Water Supply . . . Public supply for more populous parts of district from Barnet and District Gas and Water Company, artesian well, spring, and private wells and pumps.
- Sewage Disposal . . . Public system for portions of district, elsewhere cesspools and pail-closets. Disposal works Mill Green, Tolmers, and at Welham Green and Little Heath ; consist of settlement tanks, bacteria beds, and humus tanks ; at Essendon sludge pond with overflow to filter and land treatment, and at Cuffley settlement tanks, bacteria beds, and land treatment.
- Scavenging . . . Weekly collection generally, twice weekly in some parts of Hatfield Town ; covered conveyance generally used.
- Infectious Diseases . . . Cases sent by arrangement to Hertford and Ware Isolation Hospital. Examination of swabs paid for in necessitous cases ; antitoxin supplied when required. No steam disinfecter provided ; rooms and clothing disinfected by formalin.
- Housing . . . The number of houses built or being built is 108 ; in addition 38 new houses are to be erected. Two houses have been dealt with under the Housing (Rural) Workers Act, 1926.

HEMEL HEMPSTEAD.

- Water Supply . . . A considerable part of the district has a public supply from various sources, all from the chalk. Outlying portions have private wells and filtered rain-water.
- Sewage Disposal . . . Water carriage system for portions of the district, cesspools, and earth-closets. Disposal works at King's Langley and Markyate, double or single filtration and percolating filters and Flamstead and Flaunden treatment by discharging on to land.
- Scavenging . . . Weekly or fortnightly collection for most of district.
- Infectious Diseases . . . Cases of infectious disease to Hemel Hempstead Isolation Hospital, swabs to Clinical Research Association, antitoxin kept at office of Sanitary Inspector. Disinfecter at Isolation Hospital used when required ; house disinfection by sanitary staff.
- Housing . . . Houses being built during 1931, 42 ; houses to be built in 1932 are 36.

HERTFORD.

- Water Supply . . . Public supply for portions of district from tube well, Welwyn R.D.C., Metropolitan Water Board, also private supplies and shallow wells.
- Sewage Disposal . . . Public system for parts of district. At Little Amwell open tanks, filters, and broad irrigation ; at Walkern sedimentation tank and broad irrigation ; at Tewin sedimentation tank and sub-irrigation ; at Aston there is a scheme for sewage disposal works. In other parts of district cesspools and earth-closets.

- Scavenging No collection.
- Infectious Diseases Cases to Hertford and Ware Isolation Hospital; swabs sent Counties Laboratories; antitoxin kept at Isolation Hospital. Steam disinfectant at Isolation Hospital; houses disinfected by formaldehyde.
- Housing No houses built during 1931 or contemplated.

HITCHIN.

- Water Supply Public supply for nine districts in area; water in bulk also taken from Hitchin Urban District, Letchworth Garden City Co., and Stevenage Urban District.
- Sewage Disposal Public system for more populous parts of districts; nine small disposal works; one privately owned. General method adopted is by settling tanks in alternate use and broad irrigation. The question of making provision for the parishes of Ickleford and Breachwood Green is under consideration.
- Scavenging Weekly collection in covered conveyance for Knebworth; monthly and quarterly elsewhere; indestructible refuse collected.
- Infectious Diseases Cases admitted to Joint Isolation Hospital; swabs sent to County Public Health Laboratories; antitoxin kept at Isolation Hospital; steam disinfectant at hospital available when necessary. House disinfection carried out with formalin vapour.
- Housing Number of houses being built 98; new houses to be erected, 26.

ST. ALBANS.

- Water Supply Public supply for greater portion of district from Harpenden Water Co., St. Albans Water Co., Barnet Water Co., Hatfield Water Co., Colne Valley Water Co., and public wells.
- Sewage Disposal Public system for parts of district; public and private cesspools; arrangements can be made for emptying cesspools. Sewage disposal works at Nast Hyde, London Colney, and Wheathampstead.
- Scavenging Weekly collection in covered conveyance except in outlying districts.
- Infectious Diseases Cases of infectious disease to St. Albans Hospital; swabs sent to Clinical Research Association and Counties Public Health Laboratory; antitoxin supplied at Council's expense. Steam disinfectant at St. Albans Hospital; house disinfection by sanitary staff.
- Housing Houses built during 1931: London Colney, 34; Redbourn, 16; new houses to be built, 52.

WARE.

- Water Supply Public supply from deep well in chalk for Wormley and Broxbourne; rest of district served by wells, mostly deep; a few houses in Hoddesdon are supplied. The question of a public supply for Stanstead Abbots is under consideration.

- Sewage Disposal . . . Public system for parts of district ; disposal works at Wormley, Broxbourne, and Stanstead Abbots ; treatment by broad irrigation.
- Scavenging . . . Weekly collection in covered conveyance in parts of district.
- Infectious Diseases . . . Cases sent to Joint Isolation Hospital ; swabs to Counties Public Health Laboratories ; antitoxin kept at Isolation Hospital. Steam disinfectant at Isolation Hospital ; house disinfection by formaldehyde.
- Housing . . . Houses being built, 92 ; new houses to be erected, 40.
- WATFORD.**
- Water Supply . . . Public supply for considerable parts of district from Rickmansworth and Uxbridge Valley Water Co., Colne Valley Water Co., Watford Borough, and Hemel Hempstead Borough ; thirty-three wells.
- Sewage Disposal . . . Public system for more populous parts of district ; cesspools and earth-closets. There are a number of small sewage disposal works in the district, or the sewage is dealt with at sewage farms in adjoining districts.
- Scavenging . . . Generally weekly collection ; in some districts fortnightly and monthly ; covered conveyance in Aldenham district.
- Infectious Diseases . . . Cases of Infectious disease to Joint Hospital at Watford ; swabs to Clinical Research Association ; antitoxin kept at Council Offices. Steam disinfectant at Isolation Hospital ; house disinfection carried out by Sanitary Inspector.
- Housing . . . Eighteen houses built during 1931 ; 24 to be completed during 1932.
- WELWYN.**
- Water Supply . . . Public supply from Welwyn Garden City Company to parishes of Welwyn and Digswell. Small portion supplied by Hitchin Rural District Council. Welwyn Waterworks to be used for future extension ; few wells.
- Sewage Disposal . . . Public scheme for portion of parish of Welwyn ; cesspools and earth-closets. Disposal works consist of septic tanks and pumping station in Mill Lane and revolving filters and irrigation land on south-west side of Station Road ; ultimate effluent passes into River Mimram. A possible extension of the scheme is at present under consideration.
- Scavenging . . . Weekly collection generally in covered conveyance.
- Infectious Diseases . . . Cases of infectious disease are admitted by arrangement to the Letchworth or Hertford and Ware Isolation Hospitals ; swabs sent to Counties Public Health Laboratories ; antitoxin kept at Cottage Hospital. There is no steam disinfectant, but articles are occasionally sent to the Isolation Hospitals for disinfection. Houses are disinfected with sulphur or formalin ; disinfectant supplied in cases of tuberculosis.
- Housing . . . Twenty houses commenced in 1931 ; in addition 34 new houses are to be erected.

HOUSING AND TOWN PLANNING.

The question of housing and housing conditions in the County has been frequently brought up for consideration at meetings of the Public Health and Housing Committee. A tabulated statement was submitted in last year's report, showing the present position of the various authorities in the County regarding houses constructed and contemplated under the various housing Acts. In the part of this report which deals with the sanitary and special services provided by the Local Authorities in the County, information is given as to the progress made during 1931 in connection with the provision of new houses, from which it will be observed that considerable progress has been made in the direction of new construction.

The Housing Act, 1930, gives increased powers to County Councils in connection with housing grants. The Council has decided to limit contributions to Rural District Councils for the accommodation of the agricultural population of the district to the statutory contribution payable under Section 34 of the Act.

In view of the generally satisfactory progress which is being made in the various districts in the County, in the provision of new houses, the County Council does not propose to take any general action under the Act, but only to take such special action as may be necessary on any specific report submitted by their Medical Officer of Health.

DISPOSAL OF HOUSE-REFUSE; DUMPS.

House-refuse.—Greater care is now exercised by Local Authorities in the removal of house-refuse. Weekly collections in covered conveyances are now carried out in all urban districts and daily collections are made of certain trade refuse.

The disposal of house-refuse still, however, leaves much to be desired in some districts, although there has been improvement in certain districts by a stricter adherence to the rules suggested by the Ministry of Health or by the adoption of the Bradford system of controlled tipping.

The precautions suggested by the Ministry of Health are as follows:—(1) the deposit to be made in layers; (2) no layer to exceed 6 ft. in depth; (3) each layer to be covered on all surfaces exposed to the air with at least 9 inches of earth, or other suitable substance, except a portion which may be allowed uncovered during the formation of the layer; (4) no layer to be left uncovered for more than 72 hours from the time of deposit; (5) sufficient screens or other suitable apparatus to be provided where necessary to prevent any paper or other debris from being blown by the wind away from the place of deposit.

Repeated reference has been made in previous reports to the dumping in the County of large quantities of house-refuse by outside Authorities and no change in the position has to be recorded except that greater attention is being paid to carrying out the precautions recommended by the Ministry of Health. The problem is really a much bigger one than that of a mere nuisance with which the Local Authority has power to deal; it may affect adversely the amenities of a rural district to a very considerable extent and it is one regarding which the County Authority should have legislative power to take prohibitive action if the conditions arising from the dumping are such as to demand it.

TRADE PREMISES UNDER SUPERVISION.

Dairies, Cowsheds, and Milkshops.

Milk Supply.—In pursuance of the Milk and Dairies (Amendment) Act, 1922, the Minister of Health has made an Order, the Milk (Special Designation) Order, 1922, prescribing the conditions subject to which licences may be granted. The authorities responsible for the issuing of licences under the above Order are as follows:—(1) The Minister of Health, licences to producers of Certified and Grade A (tuberculin-tested) milk. Producers holding above licences from the Minister of Health will also be entitled to sell milk produced under such licence as Grade A milk without further licence from Local Authority; (2) County Councils and County Borough Councils, licences issued to producers of Grade A milk; (3)

Sanitary Authorities, licences issued to distributors of Certified milk, Grade A milk, including Grade A tuberculin-tested and Grade A Pasteurized milk, and of "Pasteurized" milk. No licence from a Sanitary Authority is necessary in the case of a licensed producer who distributed milk directly to the consumers.

During the year, 103 samples of Grade A milk were examined, and of this number, 85 were up to standard, and 18 were below standard, sufficient time has now passed to enable one to estimate the value of the present method of grading milk. That it has resulted in an improvement in the milk as regards purity and freedom from contamination there can be no doubt. Producers who do not sell graded milk nevertheless not infrequently sell milk up to "certified standard," because of the precautionary measures which they adopt.

The present system of grading milk is, however, somewhat cumbersome, and its necessity or the purpose which it serves is not or perhaps cannot be appreciated by the public. It would be much better if there were two grades of milk, Grade A milk of a higher standard and from tuberculin tested cows, and pasturized milk. This system of classification would eliminate infection with bovine tubercle and increase in pasturization would lessen the risk of infection through milk with other recognized organisms.

There is no doubt that as a result of the Milk and Dairies (Consolidation) Act, 1915, and the Milk (Special Designation) Order, 1922, there has been a definite improvement in the purity of milk and in the extent of the bacterial count which it shows. The examination of milk designated as Grade A milk has shown improved results.

The following figures indicate the action which has been taken during the year under the Milk and Dairies (Consolidation) Act, 1915:—Number of animals examined, 26,680; number found to be suffering from tuberculosis, 15; number of samples examined, 199.

Sale of Foods and Drugs Acts.—The work under the Sale of Food and Drugs Acts is carried out by the three Inspectors appointed for the purpose, working under the Chief Constable. Analyses of samples taken are made by the County Analyst, Dr. Bernard Dyer, of the Analytical Laboratory, 17 Great Tower Street, London, E.C., to whom I am indebted for the following report regarding the analytical work carried out during the year.

DR. DYER'S REPORT.

Food and Drugs (Adulteration) Act, 1928.

SUMMARY OF SAMPLES ANALYSED BETWEEN 1ST JANUARY AND 31ST DECEMBER, 1931.

	<i>Samples Analysed.</i>	<i>Samples Unsatisfactory.</i>
Ammoniated Tincture of Quinine	1	—
Arrowroot	2	—
Baking Powder	3	—
Brawn	1	—
Butter	23	—
Camphorated Oil	2	—
Cheese	1	—
Citrate of Magnesia	1	—
Cod Liver Oil	1	—
Coffee	7	—
Condensed Milk	3	—
Cooking Fat	1	—
Cream	12	—
Dripping	1	—
Egg Substitute Powder	2	—
Fish Paste	1	—
Ginger Wine	1	—
Ground Almonds	5	—
Ground Ginger	3	—
Ground Rice	1	—
Jam	3	—
Lard	3	—
Lemonade Powder	1	—
Lemon Curd	1	—
Lemon Juice	1	—
Lemon Squash	5	—
Lemon Syrup	1	—
Meat	5	—
Meat Pie	1	—
Milk	289	24
Milk, Skimmed	1	—
Pepper	9	—
Pepper Compound	1	—
Peppermint Cordial	1	—
Rice	1	—
Salmon and Shrimp Paste	1	—
Sausages	13	3
Sausages Preserved	3	—
Self-raising Flour	5	—
Sponge Cakes	1	—
Turmeric	1	—
Veal and Ham Paste	1	—
Veal Brawn	1	—
Vinegar	1	—
Whisky	1	—
Worcester Sauce	1	—
	<hr/> 424	<hr/> 27

The 424 samples included 414 samples purchased in the ordinary way under the provisions of the Act, and in addition 10 samples of milk taken as in "Appeal to Cow" samples in connection with a shortage in cream. It will be seen that 27 samples (or about 6.5 per cent) of the samples purchased were unsatisfactory, namely 24 samples of milk and three samples of sausages.

Of the samples of milk, seven contained added water in proportions ranging from 2 per cent to 40 per cent, accompanied in one case by a further deficiency in fat; while 17 samples were deficient in fat in proportions varying from 3 per cent to 35 per cent of the minimum quantity of fat proper to normal milk.

Ten "Appeal to Cow" samples were taken in connection with unsatisfactory purchases of milk. Seven out of the ten "Appeal to Cow" samples showed deficiency in fat. One of these, it should be mentioned, was a sample of fore milk (cow not stripped) containing not much more than 2 per cent of fat which the vendor had proposed to mix with the mixed milk of his other cows which averaged over 3 per cent of fat. In one other case the deficiency was so slight as to be negligible; but in five cases (all from the same herd) grave deficiencies of fat were found, the percentages of fat in samples taken from different cows varying from as little as 1.60 per cent up to 2.41 per cent. The question was raised as to whether these cows had been properly "stripped", although the inspector was of opinion that they had been properly milked out, except in the case of one cow, the strippings of which were admittedly reserved for her calf by the owner. It transpired that these cows, which were out at grass, had for some weeks been freely supplied with mangolds unaccompanied by any dry or concentrated feeding stuffs, which may have had some bearing upon these phenomenally low results, which, however, served the purpose of exonerating the vendor of the milk from the suspicion of having skimmed the milk which formed the basis of the inquiry.

Three samples of sausages returned as unsatisfactory contained sulphur dioxide and should have been sold as preserved sausages, but were sold without any such declaration. It should be added that the quantity of sulphur dioxide found was, in all cases, within the limit allowed in the regulations of the Ministry of Health in cases in which due notice is given to the purchaser. This also applies to three further samples of sausages which were properly described as preserved.

A sample sold as Pepper Compound was found to consist mainly of rice flour flavoured with pepper or pepper extract, tinted to imitate pepper. But as it was frankly sold as a compound its sale as such could not be objected to.

SUMMARY AND CONCLUSIONS.

The health of the County during 1931 has been good, and the statistics for the year are in some respects more satisfactory than they were last year, although in other respects they are slightly less so.

The estimated population of the County is given as 401,900, the census population taken 1931 was 401,159.

There is a fall in the birth-rate, which was 14.6, compared with 15.3 in 1931. The actual number of births was 5,899, compared with 5,912 in the previous year.

There is a slight increase in the death-rate, which was 10.3, compared with 10.2 in 1930.

There is a slight increase in the infant mortality, which was 46.4, compared with 41.9 last year. This increase is chiefly due to an increased number of deaths from congenital debility and premature birth, which was 170 compared with 141 for the previous year. It is somewhat significant that the increase in infant mortality has occurred in the urban districts only.

There is a decrease in the maternal mortality which was 3.8 compared with 4.5 for the previous year, the number of maternal deaths being 23, compared with 27 last year.

There is a further decrease in the death-rate from pulmonary tuberculosis, namely 0.48, compared with 0.55. This is the first occasion on which the death-rate from pulmonary tuberculosis has been below 0.5 per 1,000. On the other hand, there is a slight increase in the death-rate from non-pulmonary tuberculosis from 0.08 to 0.11.

There is a slight rise in the death-rate from cancer and other forms of malignant disease, which was 1.5 compared with 1.4. The number of deaths from this cause was 628, compared with 573 last year. It should be noted that while the increase in the number of deaths in males was only five, in the case of females it was fifty.

The number of patients from the County attending the Venereal Disease Clinics in London during the year is less, being 257 compared with 302 for 1930, and 281 for 1929.

There is a distinct fall in the death-rate from epidemic disease, which was 0.11 compared with 0.19 in 1930.

There was an increase in the number of deaths from influenza and, as is usually the case, a corresponding increase in the number of deaths from pneumonia and bronchitis.

In conclusion, I desire once more to express my thanks on behalf of the County Council to the ladies who act as voluntary workers at both the County Council and the Voluntary Maternity and Child Welfare Centres for the valuable assistance they give and to the time they devote to this important work.

TABLE 27—CHIEF STATISTICS OF URBAN AND RURAL DISTRICTS, 1931.

As compared with those for 1930 and with the averages for ten years 1901-1910 and 1911-1920.

DISTRICTS.	POPULATION.				Acreage (land and inland water), 1931.	Number of Rooms occupied, 1921.	Rooms per Person, 1921.	BIRTH-RATE.*				CRUDE DEATH-RATE.*				INFANT MORTALITY.†				EPIDEMIC MORTALITY.*		DEATH-RATE FROM PTHRISIS.*				DEATH-RATE FROM CANCER.*				DISTRICT.
	By estimate, 1932.	By Census, 1931.	By Census, 1921.	By Census, 1911.				1931.	1930.	10 years, ‡	10 years, ‡	1931.	1930.	10 years, ‡	10 years, ‡	1931.	1930.	10 years, ‡	10 years, ‡	1931.	1930.	1931.	1930.	10 years, ‡	10 years, ‡	1931.	1930.	10 years, ‡	10 years, ‡	
Urban. SUMMARY	281,000	280,945	228,546	194,242	70,048	275,492	1.26	14.6	15.4	18.0	23.6	10.4	10.3	11.6	11.8	51	44	67	90	12	20	5	5	8	8	1.6	1.4	1.2	9	Urban.
1 Baldock ...	3,161	3,171	2,475	2,094	542	3,146	1.31	16.4	13.2	19.9	24.0	13.6	10.2	14.8	15.5	19	25	85	110	33	33	9	9	9	1.0	1.8	1.3	1.2	1.2	1
2 Barnet ...	14,510	14,721	11,740	10,440	3,114	13,946	1.27	13.1	14.2	16.5	23.3	12.1	12.0	11.1	11.0	63	57	67	100	13	28	5	4	5	8	2.2	1.6	1.4	7	2
3 Berkhamstead ...	8,431	8,053	7,250	7,302	1,208	9,576	1.20	12.7	16.2	16.0	16.5	10.0	9.7	12.6	10.1	10	95	62	93	...	12	5	1	6	7	9	1.1	1.1	5	3
4 Bishop's Stortford	9,735	9,509	8,840	8,721	3,371	10,528	1.35	13.6	13.3	16.8	21.6	10.4	12.5	12.7	12.6	68	62	76	91	10	...	6	8	6	8	1.7	1.6	1.3	1.1	4
5 Bushey ...	11,460	11,243	8,020	6,978	3,081	9,577	1.36	14.0	14.9	15.3	19.3	8.8	8.8	9.6	9.7	31	...	59	80	...	29	3	7	6	5	1.6	1.3	1.1	9	5
6 Cheshunt ...	14,720	14,651	13,640	12,954	8,479	15,077	1.12	15.2	15.2	20.8	26.6	11.3	11.7	11.6	11.6	62	32	71	91	13	20	5	5	8	6	1.3	1.2	1.0	8	6
7 Chorleywood ...	3,192	3,296	2,331	...	1,989	3,440	1.47	11.9	15.3	...	...	8.4	7.2	...	...	26	41	...	...	...	...	6	6	...	...	9	1.2	...	...	7
8 East Barnet Valley	18,600	18,512	13,490	13,381	2,644	17,399	1.32	15.3	16.8	16.8	22.3	10.3	10.1	9.8	10.2	81	52	48	85	...	24	3	4	6	6	1.4	1.7	1.1	7	8
9 Harpenden ...	8,349	8,349	6,670	6,172	1,633	8,846	1.43	10.1	12.2	14.6	19.1	11.0	7.6	10.2	10.1	82	31	51	81	11	12	2	4	6	7	2.0	1.3	1.3	8	9
10 Hemel Hempstead	15,120	15,122	13,920	12,888	7,184	16,158	1.21	14.3	14.9	20.3	24.5	10.3	11.2	12.9	13.2	41	27	60	90	13	13	5	9	1.0	1.0	1.3	1.8	1.1	1.0	10
11 Hertford ...	11,610	11,376	10,750	10,383	1,503	12,212	1.24	15.5	14.2	19.1	22.9	11.2	9.6	13.8	14.1	33	36	78	104	25	...	6	2	9	9	1.8	1.1	1.7	1.2	11
12 Hitchin ...	14,350	14,382	13,352	11,995	3,675	16,664	1.29	14.9	16.9	19.7	23.4	9.6	12.1	13.2	13.1	51	39	67	102	27	36	4	2	7	7	1.2	1.6	1.3	8	12
13 Huddersdon ...	6,759	6,811	5,400	5,196	1,576	6,716	1.27	18.0	19.5	18.3	23.5	10.0	11.7	13.1	12.1	49	64	70	97	...	35	2	5	1.0	9	2.2	1.7	1.6	1.0	13
14 Letchworth ...	14,430	14,454	10,210	...	3,651	11,433	1.15	15.0	15.0	...	...	7.2	7.1	...	...	41	20	...	...	...	...	22	4	3	...	...	1.2	9	...	14
15 Rickmansworth ...	10,740	10,810	7,520	6,288	4,727	9,058	1.24	17.5	16.0	18.4	26.7	10.1	9.5	10.0	11.4	48	39	65	88	18	10	3	5	7	9	1.7	8	9	6	15
16 Royston ...	3,793	3,831	3,780	3,985	1,003	5,008	1.42	12.3	10.1	15.6	21.1	16.3	12.7	13.0	12.2	64	...	74	76	26	...	5	10	8	2.3	2.0	1.4	1.5	16	
17 St. Albans ...	28,460	28,625	25,620	18,133	2,689	32,008	1.29	13.3	14.2	17.6	21.2	12.0	11.2	11.6	11.8	52	53	65	78	...	18	9	7	7	9	1.9	1.7	1.2	1.1	17
18 Sawbridgeworth ...	2,565	2,604	2,285	2,304	2,678	2,953	1.30	11.3	16.2	17.0	24.1	12.8	10.3	13.5	12.2	69	71	76	91	...	...	3	6	8	2.3	1.5	7	1.4	18	
19 Stevenage ...	5,515	5,476	5,023	4,856	4,545	6,486	1.31	14.8	14.1	19.1	26.3	15.2	11.1	11.6	12.1	49	50	63	77	90	...	7	7	6	8	1.9	1.0	1.1	1.2	19
20 Tring ...	4,329	4,364	4,278	4,481	4,407	5,784	1.36	14.7	17.7	18.9	21.0	15.0	13.9	13.2	13.1	62	...	54	85	...	...	6	2	7	5	3.4	2.6	1.4	1.1	20
21 Ware ...	6,070	6,171	5,950	5,842	629	6,550	1.14	14.8	17.6	19.6	28.0	14.1	12.9	13.3	14.4	100	91	69	107	...	64	9	4	7	1.1	1.3	1.7	1.1	9	21
22 Watford ...	56,500	56,799	46,002	40,939	3,251	52,936	1.18	14.6	15.8	18.0	26.2	9.2	9.8	10.7	10.1	52	46	73	88	19	27	6	7	9	8	1.4	1.5	1.0	7	22
23 Welwyn Gdn. City	8,601	8,585	...	...	2,460	...	...	21.8	19.9	...	...	5.1	6.0	...	...	5	43	...	...	...	12	1	3	...	...	6	7	...	23	
Rural. SUMMARY	120,900	120,214	103,674	117,042	334,472	123,112	1.30	14.7	15.2	18.2	22.6	10.2	9.9	11.6	12.0	36	38	58	83	10	16	3	5	7	7	1.4	1.4	1.2	9	Rural.
1 Ashwell ...	3,488	3,486	3,600	3,948	22,049	4,962	1.38	13.7	15.0	16.4	20.0	17.2	13.0	14.1	14.4	...	38	61	82	...	...	2	2	1.0	7	2.5	1.6	1.9	1.3	1
2 Barnet ...	6,312	6,398	4,500	4,969	9,215	5,320	1.24	19.3	16.1	19.3	25.5	9.0	10.2	9.6	10.6	74	63	51	82	31	18	1	7	5	1.0	1.1	1.8	8	1.1	2
3 Berkhamstead ...	5,252	5,379	4,692	4,707	18,384	5,903	1.26	15.4	16.7	17.2	25.0	11.0	10.0	13.1	15.4	49	35	69	101	...	...	1	5	5	9	1.7	9	1.3	1.1	3
4 Buntingford ...	4,582	4,639	4,890	5,019	28,470	6,503	1.35	13.9	13.4	18.8	22.1	14.4	11.9	13.4	14.5	16	78	44	81	...	20	4	6	6	9	2.6	1.0	1.4	1.2	4
5 Hadham ...	5,426	5,471	5,480	5,795	25,466	7,256	1.36	11.4	13.8	17.3	21.2	14.7	11.2	13.5	13.6	64	53	53	73	...	18	1	1	6	7	1.4	1.6	1.4	1.1	5
6 Hatfield ...	11,260	10,999	8,850	8,592	22,091	11,143	1.29	18.1	18.5	19.1	24.0	9.4	8.9	11.9	11.4	24	47	54	87	...	19	2	5	8	1.0	1.0	1.1	1.0	6	
7 Hemel Hempstead	8,276	8,271	6,840	6,565	19,994	8,807	1.31	15.7	14.8	18.9	21.0	8.2	11.6	12.7	12.4	23	26	54	95	12	25	4	3	7	9	9	3.0	1.2	1.0	7
8 Hertford ...	7,581	7,692	7,138	7,659	33,449	9,499	1.35	12.6	15.6	18.8	22.0	10.9	9.7	12.0	12.6	21	42	81	71	...	26	2	3	5	9	2.5	1.0	1.2	1.2	8
9 Hitchin ...	14,599	14,595	12,978	18,666	54,998	16,462	1.29	14.4	16.2	20.4	22.0	10.3	11.0	10.9	10.7	28	39	58	80	06	13	2	4	7	6	1.6	1.3	1.1	1.0	9
10 St. Albans ...	19,630	19,571	14,580	19,463	37,070	13,666	1.20	15.6	15.0	20.4	28.5	9.1	8.0	12.0	12.2	42	25	62	91	25	10	5	6	7	9	9	1.5	1.0	1.0	10
11 Ware ...	12,299	11,892	11,260	11,464	33,953	13,579	1.32	11.3	13.6	17.1	21.2	11.3	11.2	12.2	11.5	43	31	57	70	...	17	4	5	7	9	1.4	1.7	1.3	1.0	11
12 Watford ...	18,539	18,122	16,158	17,776	23,903	16,626	1.36	13.0	12.8	14.4	19.3	8.3	7.8	10.3	9.8	41	35	59	80	21	22	2	4	8	6	1.5	9	1.0	1.0	12
13 Welwyn ...	3,683	3,699	2,708	2,419	5,439	3,386	1.31	16.8	18.8	17.0	25.4	8.6	12.0	10.2	13.3	27	31	37	97	...	...	2	5	4	9	1.3	2.2	1.1	1.0	13
COUNTY SUMMARY	401,900	401,159	332,220	311,284	404,520	398,604	1.27	14.6	15.3	18.1	22.9	10.3	10.2	11.6	11.7	46	42	64	88	11	19	4	5	7	8	1.5	1.4	1.2	1.0	County

* Per 1,000 of population.

† 1911-1920.

District	POPULATION			Number of Inhabitants
	1917	1920	1922	
Urban	10,215	12,510	13,000	10,215
1. ...	1,000	1,200	1,300	1,000
2. ...	1,500	1,800	1,900	1,500
3. ...	2,000	2,400	2,500	2,000
4. ...	2,500	3,000	3,100	2,500
5. ...	3,000	3,600	3,700	3,000
6. ...	3,500	4,200	4,300	3,500
7. ...	4,000	4,800	4,900	4,000
8. ...	4,500	5,400	5,500	4,500
9. ...	5,000	6,000	6,100	5,000
10. ...	5,500	6,600	6,700	5,500
11. ...	6,000	7,200	7,300	6,000
12. ...	6,500	7,800	7,900	6,500
13. ...	7,000	8,400	8,500	7,000
14. ...	7,500	9,000	9,100	7,500
15. ...	8,000	9,600	9,700	8,000
16. ...	8,500	10,200	10,300	8,500
17. ...	9,000	10,800	10,900	9,000
18. ...	9,500	11,400	11,500	9,500
19. ...	10,000	12,000	12,100	10,000
20. ...	10,500	12,600	12,700	10,500
21. ...	11,000	13,200	13,300	11,000
22. ...	11,500	13,800	13,900	11,500
23. ...	12,000	14,400	14,500	12,000
Rural	10,000	12,000	12,500	10,000
1. ...	1,000	1,200	1,300	1,000
2. ...	1,500	1,800	1,900	1,500
3. ...	2,000	2,400	2,500	2,000
4. ...	2,500	3,000	3,100	2,500
5. ...	3,000	3,600	3,700	3,000
6. ...	3,500	4,200	4,300	3,500
7. ...	4,000	4,800	4,900	4,000
8. ...	4,500	5,400	5,500	4,500
9. ...	5,000	6,000	6,100	5,000
10. ...	5,500	6,600	6,700	5,500
11. ...	6,000	7,200	7,300	6,000
12. ...	6,500	7,800	7,900	6,500
13. ...	7,000	8,400	8,500	7,000
COUNTY SUMMARY	10,215	12,510	13,000	10,215

