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Cambridgeshire County Council

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ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE

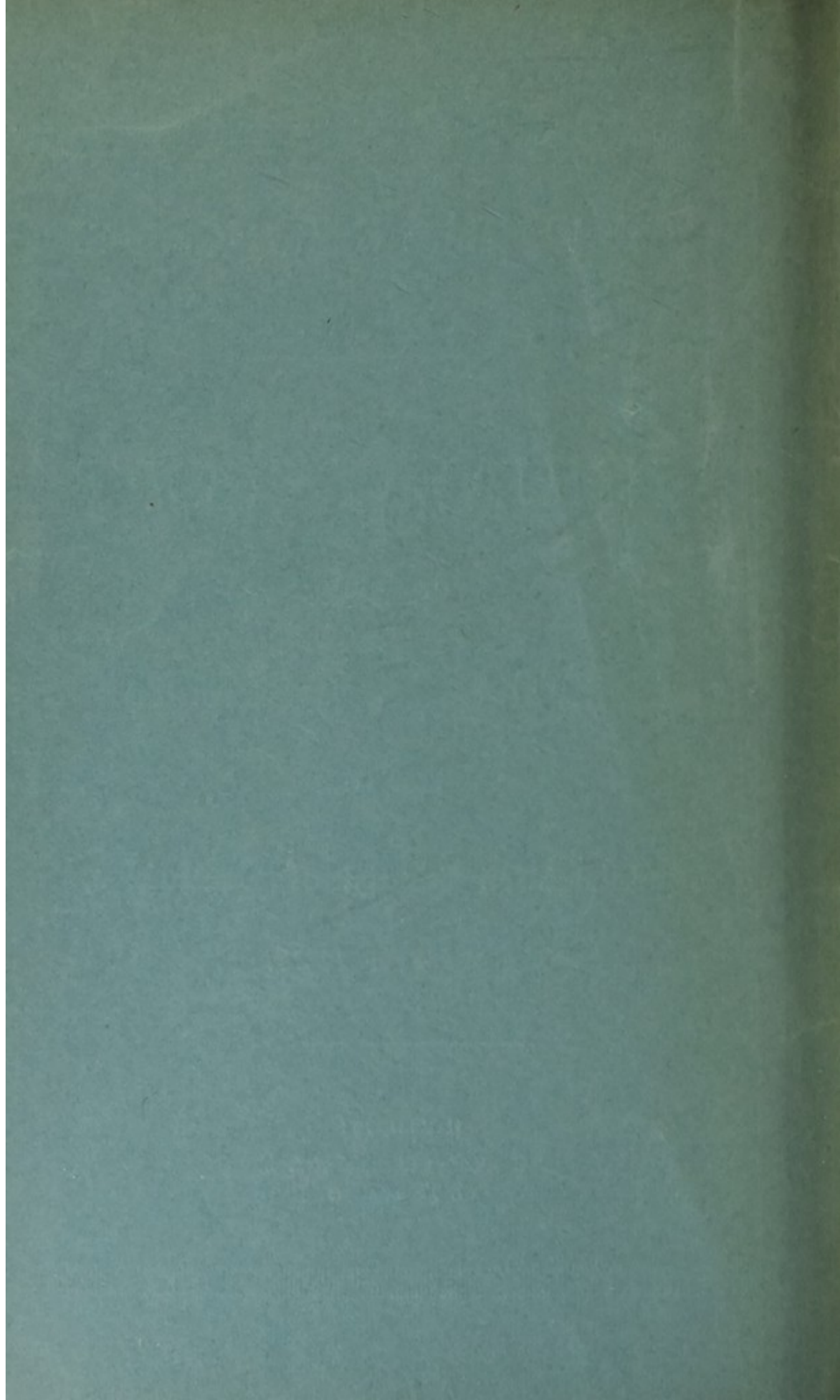
Administrative County of Cambridge,

*For the Year 1929.*

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CAMBRIDGE :

“Cambridge Chronicle,” Ltd.,  
St. Tibbs Row.



Cambridgeshire County Council

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3. Notifications of Infectious Disease.

## GENERAL STATISTICS.

Area (acres) ... ..	314,520
Population—Census, 1921 ... ..	129,602
Estimated 1929 for birth-rate ...	133,540
,, ,, ,, death-rate ...	133,310
Inhabited Houses (1921) ... ..	31,790
Families or Separate Occupiers (1921) ... ..	32,882
Rateable Value (amended by Local Government Act, 1929) ... ..	£771,755
Estimated Product of a Penny Rate ... ..	£3,087

## EXTRACTS FROM VITAL STATISTICS FOR THE YEAR.

				<i>Total.</i>	<i>Male.</i>	<i>Female.</i>
Births.	Legitimate	... ..	1671	852	819	
	Illegitimate	... ..	92	40	52	
	(Birth Rate 13.2 per 1,000).					
Deaths	... ..	... ..	1797	878	919	
	(Death Rate 13.5 per 1,000).					
Deaths of Women in Child-birth from sepsis	... ..	... ..			4	
,, ,, ,, other causes	... ..	... ..			2	
Deaths of Infants per 1,000 births:						
Legitimate 46.	Illegitimate 43	... ..	Total	46		
Deaths from Measles (all ages)	... ..	... ..	... ..	2		
,, ,, Whooping Cough (all ages)	... ..	... ..	... ..	1		
,, ,, Diarrhoea (under 2 years)	... ..	... ..	... ..	2		

## STAFF.

Whole time officers of the County Council:—

FRANK ROBINSON, M.D., D.P.H., *Medical Officer of Health and School Medical Officer.*

JESSIE H. GELLATLY, M.D., D.P.H., *Assistant do.*

W. PATON PHILIP, M.C., M.B., D.M.R.E., *Tuberculosis Officer.*

J. C. G. EVERED, L.D.S. (EDIN.), *School Dentist.*

G. G. GALPIN, *Chief Clerk, and Enquiry Officer under the Mental Deficiency Act.*

Services in connection with the County Public Health Department are also rendered by the following:—

L. COBBETT, M.D. F.R.C.S., *Pathologist.*

W. H. HARVEY, M.D., *Bacteriologist.*

MISS E. BILLS, *Superintendent of County Nursing Association, and Inspector of Midwives.*

## PHYSICAL FEATURES AND SOCIAL CONDITIONS.

Details were given in the Survey Report for 1925.

## GENERAL PROVISION OF HEALTH SERVICES.

Details were given in the Survey Report for 1925, and it is only necessary to make special reference to hospitals, maternity homes, and hospital provision for maternity cases.

*Isolation Hospitals.*—Section 63 of the Local Government Act, 1929, provides that a survey shall be made of the available accommodation and this will be undertaken in due course. As matters now stand, apart from provision for smallpox, there are four hospitals for the isolation of cases of infectious disease, provided by the Cambridge Town Council and by the Councils of the Rural Districts of

Chesterton, Melbourn and Newmarket respectively. Annual grants towards the cost of upkeep are made by the County Council except in the case of Chesterton, for which hospital a lump sum grant towards the original cost of construction was made in the first instance. The other three hospitals were inspected during the year and grants approved to the amount of £758.

The Cambridge Isolation Hospital is a permanent structure of 62 beds, accommodating several diseases at once. This hospital also accommodates, for payment, cases from the Rural Districts of Caxton, Linton and Swavesey, which have no hospital, and occasional cases from other Districts. The cellular block enables single cases of differing types of infection to be received, in addition to those which are normally received in larger numbers, such as diphtheria and scarlet fever. During the year a system of central heating was installed in the Nurses' Home.

The Isolation Hospital at Royston serves the Melbourn Rural District in this County jointly with a Hertfordshire District. It is a small permanent structure with one ward pavilion, and therefore has the disadvantage of only being able to accommodate one disease at a time. On air-space it is equivalent to an 8-bed hospital, but can accommodate more on occasion. Necessary repairs were executed during the year.

Exning Isolation Hospital serves the Newmarket Rural District jointly with a District of West Suffolk. The opening of the extension in 1929 added an eight-bed cubicle block for patients to the existing four small wards, together with additional accommodation for the nursing and domestic staff. A new mortuary also was erected and the laundry block extended in 1929. A watercarriage system of drainage, with septic tank and filterbed, was substituted for the old earth-closet system.

The Chesterton Rural District is served by the small hospital at Oakington, with a temporary pavilion and a separate permanent building as a home for the nurses. Only one disease can be accommodated at the same time.

*Smallpox Hospital.*—The one smallpox hospital is an Old temporary building provided by the Cambridge Town Council on the outskirts of the borough. It contains 8 beds, and there is provision for expansion. The Town Council have agreed to receive cases from the Rural Districts as far as practicable. This institution will receive consideration in the general survey.

*Maternity Homes.*—Ten Nursing Homes are registered under the Nursing Homes Registration Act, 1927, of which 8 are in Cambridge and 2 in the rural area. Maternity cases are received in 6 of these Homes, 4 in Cambridge and 2 in the rural area. One Nursing Home is exempted as not being carried on for profit. Powers of inspection of Homes in Cambridge have been delegated to the Town Council, subject to annual review by the County Council.

*Maternity Hospital.*—There is no maternity hospital in the Administrative County. Both Town and County Councils pay for the maintenance of difficult cases in Addenbrooke's Hospital, where there are two new small wards to accommodate 8 patients.

There has been no further consideration of the Maternity Home question, but the transfer to the County Council of the Cambridge Poor Law Institution places maternity beds at their disposal, and it has been resolved that cases hitherto admitted to other Poor Law Institutions within the County boundary shall in future be admitted to the Cambridge and Newmarket Institutions.

The Ely Diocesan Maternity Home receives unmarried expectant mothers for confinement. The County Council

pay for the maintenance of certain cases from the rural area, and the annual grant hitherto paid to the Home by the Ministry of Health will in future be paid by the Council.

### MIDWIVES ACTS.

Up to March 31st, 1930, the County Council were the Local Supervising Authority for the whole of the Administrative County, but certain powers and duties under the Midwives Act were delegated to the Town Council prior to the Midwives Act, 1918. Since March 31st, the Town Council have, by order of the Ministry of Health, become Local Supervising Authority for the Borough, and the County Council will no longer administer these Acts for Cambridge. The present report, however, relates to the whole Administrative County.

During the year, 138 routine visits of inspection were paid to midwives by the Inspector, 19 in Cambridge Borough and 119 in the rural area. Special enquiries to the number of 72 were also made from time to time as occasion arose.

All the practising midwives in the area are trained women. The following is the number who notified their intention to practise in the years specified:—

			<i>Trained.</i>	<i>Untrained.</i>	<i>Total.</i>
January, 1906	...	...	24	42	66
„ 1929	...	...	50	—	50
„ 1930	...	...	50	—	50

It will be seen that as compared with the early years of administration of these Acts all untrained women have by reason of death, resignation or other cause, ceased to practise, while the number of trained women has more than doubled.

Of the 50 midwives who, in January, 1930, notified their intention to practise throughout the year, 8 reside in Cambridge, and 42 in the rural area. Altogether 69 notifications were received during the calendar year 1929, some being due to holiday duty undertaken for District Nurses. With two exceptions, all the trained midwives practising regularly in the rural area are District Nurses.

The County Council gave three nursing scholarships of the value of £75 each during the year, bringing up the number of nurse-midwives whose training has been assisted in this way since 1913 to 43. Maintenance grants to the total amount of £254 were also made during the financial year to seven District Nursing Associations in respect of the services of the nurse-midwives in their employ. The Council's policy of financial assistance in co-operation with the activities of the County Nursing Association has succeeded in reducing the rural population without the services of a nurse-midwife to approximately 5,000. The Council have now approved a scheme prepared by the Association for filling these gaps in the midwifery and nursing services and for the provision of motor transport, and to effect this they have voted a sum of £300 per annum for the next three years.

The Council's scheme for the support of voluntary agencies, prepared under the provisions of Section 101 of the Local Government Act, 1929, includes a sum to be paid annually to the County Nursing Association for services rendered in connection with the midwifery service in the rural area. This includes a sum to be distributed among District Nursing Associations who provide the services of a nurse-midwife, in substitution for the annual grants which have been in the past made direct by the Ministry of Health to the Nursing Associations, together with a sum to enable nurse-midwives to be established in new areas,

or, where necessary, to assist existing Associations to continue such provision. These sums are provided from the new block grant paid to the County Council under the Act of 1929.

Apart from intention to practise and change of address, notifications received from midwives numbered 295, against 249 in 1928. They comprised medical help for mother 192, for infant 42, liability to be a source of infection 21, death of infant 15, still-birth 12, laying out the dead 7, and artificial feeding 6. All cases of rise of temperature, infection, inflammation of eyes, death of mother or infant, and still-birth are the subject of enquiry.

The proportion of total births in the Administrative County to which medical aid for mother or infant was summoned by midwives in circumstances of difficulty rose steadily from 5.2 per cent. in 1919 to 13.1 per cent. in 1929. The intention is that the midwife shall be responsible for straightforward cases, and that the help of a doctor shall be readily available in the event of any departure from the normal. It is evident that midwives are availing themselves to an increasing extent of the medical assistance required under the Midwives Acts in such circumstances, as a safeguard for both mother and infant. Excluding infants, the number of mothers thus aided in connection with pregnancy or confinement was 192 in 1929. Claims for payment of the doctor's fee by the Council under the provisions of the Midwives Act, 1918, were received in respect of 169 cases out of 234 in which the doctor was summoned to attend either mother or infant, the proportion being 72 per cent. against 71 per cent. in the previous year. Where practicable, some portion of the fee is recovered from the patient. A grant has been made to the Surgical Aid Association for services in assessing and collecting payments in Cambridge Borough.

## MATERNITY AND CHILD WELFARE.

The maternity and child welfare scheme for the Borough of Cambridge is administered by the Town Council, and that for the rural area of the County by the County Council.

*Cambridge Borough.*—Under the Notification of Births Act, 1907, there were notified 790 births, or 98.0 per cent. of the total of 806 births actually registered in the area, against 98.7 per cent. in 1928. Of the total notifications, 75.0 per cent. were received from midwives, compared with 57 per cent. in 1920.

The following is a record of the home visits paid by the two Health Visitors:—

First visits to Infants	...	...	...	756
Subsequent visits to Infants	...	...	...	1876
Visits to Children 1—5 years	...	...	...	1301
First visits to Expectant Mothers	...	...	...	77
Subsequent visits to Expectant Mothers	...	...	...	88
Other cases	...	...	...	6
				—
Total	...	...	...	4104
				—

To estimate the volume of education and general health supervision of mothers and young children, these figures require to be read with the statistics furnished from the Centres.

Each of the five Maternity and Child Welfare Centres is staffed by voluntary workers and by one of the Town Council's two Health Visitors. The centres are open weekly and are attended by a doctor fortnightly. During the year 4,659 attendances were paid by 437 infants, and 1,851 attendances by 320 children aged one to five years.

Dried milk (1,988 lbs.), virol, cod liver oil and malt are supplied at the centres at a reduced rate or free, cases being investigated by the Central Aid Society and assessed within a fixed income scale.

The number of expectant mothers attending either the Welfare Centres or at Addenbrooke's Hospital was again small, but the Council hope to establish a fully equipped and staffed ante-natal clinic during 1930 on their school clinic premises.

At the two Mothers' Welfare Centres for instruction, each held weekly, the average attendance is 15 or 16. Instruction to girls in mothercraft is now given in all the girls' schools.

During the year 9 maternity cases were maintained by the Town Council in beds in Addenbrooke's Hospital, and 6 cases in the new maternity ward at the Poor Law Institution under an agreement entered into with the Cambridge Guardians.

Dr. Laird's report includes an interesting report by the Public Dental officer on the Town Council's scheme for dental treatment of mothers and children below school age, which includes expectant and nursing mothers in attendance at the Infant Welfare Centres, on recommendations from Midwives and the Medical Officers of the Centres. Its object is to educate on preventive lines as well as to treat actual dental disease, both for the benefit of the mother or expectant mother and, through her, of her child. During the year 72 mothers received treatment, including the provision of dentures, while 314 children were enrolled in the scheme for six-monthly examination and any necessary treatment. The total number of attendances was 1,063, including 798 by children. Mr. Grandison is able to report that definite progress is now being made with the pre-

school child, and that there was a large increase in the number of such children receiving attention during 1929.

*Rural Districts.*—The number of notifications received under the Notification of Births Acts during the year, 1,022, was 73 fewer than that recorded for the preceding year. (Births registered as having occurred during 1929 number 1,048 against 1,130 in 1928.) After deducting 27 duplicates and 37 still-births, there remain 958 notified live births, or 91.4 per cent. of the total registered, as compared with 94.7 in 1928. The proportion fluctuates somewhat from year to year.

There was again an increase in the proportion of notifications (624) by midwives, 61.0 per cent. of the notifications being received from them, against 57.3 per cent. in 1928 and 30.8 per cent. in 1919. The proportion notified by doctors and relatives showed a corresponding decrease to 39 per cent. Health Visitors and Masters of Poor Law Institutions also reported for visitation purposes 40 infants under twelve months of age who came to their notice during the course of visitation of the homes or on discharge of the mother and infant from an Institution, as well as 89 children above the age of twelve months. Now that these institutions are controlled by the County Council, this information may be expected to be more complete. The interchange of complete monthly lists of registered and notified births with the Registrars continues. These officers also are now under the direction of the County Authority.

Under the scheme of home visitation carried out by the staffs of the County and District Nursing Associations for advice with regard to expectant and nursing mothers,

infants and young children not yet at school, the total home visits paid were as follows:—

	<i>Expectant</i>		<i>Up to</i>	
	<i>Mothers.</i>	<i>Infants.</i>	<i>School Age.</i>	<i>Total.</i>
County Health Visitors	88	2272	4436	6796
District Nurses ...	2484	6184	10261	18929
	—	—	—	—
Total for 1929 ...	2572	8456	14697	25725
„ „ 1928 ...	2602	8604	14332	25538

First visits to infants showed a decrease from 1,042 in 1928 to 909, and those paid to expectant mothers decreased in the same period from 614 to 563, but the actual proportion of expectant mothers who came under visitation, 53.7 per cent., was only slightly below that (54.3 per cent.) for the previous year. This figure is based on births in all social classes, so the proportion of expectant working class mothers coming under visitation must be considerably higher.

The County Council have for some years undertaken for the Poor Law Guardians, through the Health Visitors, the home visitation of children received by foster parents for payment, and 51 children were supervised in this way during the year. Under the Local Government Act, 1929, this administration, up to the present governed by the Infant Life Protection sections of the Children Act, was transferred from the Poor Law Guardians to the County Council from April 1st, 1930. The latter Authority are now directly responsible for the care of foster children within the rural area, for which they are the Maternity and Child Welfare Authority, the Town Council having similar duties for Cambridge.

The County Council do not directly administer Maternity and Child Welfare Centres, but they have

encouraged the formation and conduct of Voluntary centres in the larger villages, making grants in aid where such support proves necessary. At the end of the year, 7 centres were in operation, and two more which were then under consideration have since been opened. Under the provisions of Section 101 of the Local Government Act, 1929, which require the submission of a scheme to the Ministry of Health by the County Council for securing the payment by the Council of annual contributions towards the expenses of such voluntary associations, the County Council have assigned an annual sum to the County Nursing Association for purposes of grants to be made on their behalf, representing the displaced direct grants from the Ministry to the centre together with grants in aid by the County Council.

During the year 7 mothers again benefitted by the services of Home Helps provided by the County Nursing Association, the County Council assisting by paying an annual retaining fee and part of the remuneration where the patient cannot afford the whole. Although this service is greatly appreciated it is difficult to get women to take it up, probably because such work in the villages necessitates their leaving their homes and living with their patients under inconvenient conditions.

The County Council pay the maintenance charges for confinement of necessitous women in Addenbrooke's Hospital in cases of difficulty, and 25 mothers (including cases of puerperal sepsis) were thus maintained in 1929. It is to be hoped that it will be possible to admit to the new maternity wards at the Mill Road Institution (taken over from the Cambridge Guardians) expectant mothers for confinement whose homes are ill adapted on sanitary grounds.

Maternity cases to the number of 38 were nursed in their homes during the year, while the services of the Cambridge and District Surgical Aid Association were sought for 36 mothers for dental treatment, spectacles, and surgical appliances. Twenty out-patient letters of recommendation for Addenbrooke's Hospital were given for mothers and children.

During the year the Council paid the maintenance charges for 3 unmarried mothers admitted with their infants to the Ely Diocesan Maternity Home, Cambridge, where they are entitled to fill two places. As previously pointed out, the County Council will in future be responsible for payment to the Home of Maternity and Child Welfare grants previously paid by the Ministry. It has unfortunately been found impracticable to carry on the Chase Babies Home recently opened in Cambridge for the reception of infants whose mothers have left the Maternity Home and have obtained situations near by. It is much to be hoped that eventually it may be found possible to reopen a similar home for infants to meet the undoubted difficulty experienced in obtaining suitable foster mothers.

The supply of fresh and dried milk to expectant and nursing mothers, infants and young children has been continued, 48 fresh families being added to the list of 59 in receipt of milk at the beginning of the year, making a total of 107 supplied (against 101 in 1928) for the approximate sum of £240. Medical as well as financial grounds must exist for this form of assistance to be given. The County Council now have added powers through transfer of Poor Law administration to them, and may thus be able in future to aid some cases which cannot be assisted out of Maternity and Child Welfare funds.

The Council had, in 1929, no approved orthopædic scheme for young children, but it may be mentioned that they have, since December 31st, with the approval of the Ministry of Health, resolved to give financial support to the scheme which is now being developed by the Cambs. Branch of the British Red Cross Society for more comprehensive treatment of conditions in children which are likely to lead to permanent crippling. Apart from the essential services of a surgeon, the most important point about the scheme is that an experienced orthopædic sister has been engaged, whose services will, it is hoped, be available for the whole area. The aim, briefly stated, is to secure early remedial treatment which will prevent serious defect from developing, and frequent skilled after-care in those cases where operative treatment proves unavoidable. If successfully worked, such a scheme should be an insurance against crippling defects which are likely to handicap the sufferer in after years in earning a livelihood, and is therefore deserving of encouragement on economic, as well as humanitarian, grounds.

Reference may also properly be made in this section of the report, to the services which the County Council provide under the Puerperal Pyrexia Regulations which require a doctor to notify any case of confinement during which the temperature rises to a specified degree, this being a danger signal which may advertise the beginning of an infectious condition, as well as any case which he definitely considers septic. This affords the Council the opportunity of offering the services of an obstetric expert to visit the patient with the doctor, express his opinion and advise as to action. This may lead directly to the admission of the patient to Addenbrooke's Hospital, for which the County Council pay, provided the patient is not a well-to-do person. This is the best solution in such cases, as it affords the

midwife, if any, who is concerned with the case, an early opportunity of disinfecting and getting back to her midwifery practice as soon as may reasonably be permitted. If, however, removal to hospital is not practicable, the Council, acting through the County Nursing Association, can provide special nursing in the home of the patient, always provided that a nurse can be obtained at short notice. The best solution, where practicable, in cases of puerperal infection, is certainly the removal of the patient to hospital, not only as giving her the best chance of recovery, but in the interests of other women, as removing a focus of grave infection from their neighbourhood.

Reference to propaganda work will be found in the section on Health Education.

### TUBERCULOSIS.

The following figures relate to new cases of tuberculosis coming to knowledge of the Medical Officers of Health during the year, whether by notification or otherwise:—

<i>Age Periods.</i>	<i>Pulmonary.</i>		<i>Non-Pulmonary.</i>	
	M.	F.	M.	F.
0 ... ..	—	—	—	—
1 ... ..	1	—	6	2
5 ... ..	6	5	8	6
10 ... ..	6	5	5	5
15 ... ..	5	6	3	2
20 ... ..	14	12	2	3
25 ... ..	23	13	4	5
35 ... ..	16	18	1	2
45 ... ..	13	9	—	—
55 ... ..	13	5	1	2
65 and upwards	4	3	—	1
	101	76	30	28

The deaths at the respective age-periods will be found in Table 1 at the end of this report.

No action was called for during the year under the Public Health (Prevention of Tuberculosis) Regulations, 1925, or Section 62 of the Public Health Act, 1925.

The County Council provides supervision (but not treatment) in the homes, dispensary supervision and sanatorium accommodation for tubercular persons, whether insured or uninsured, including ex-Service men.

*Dispensary and Homes.*—The Tuberculosis Dispensary at 1, Camden Place, Regent Street, Cambridge, serves the whole County area. The specialist staff consists of the Tuberculosis Officer, Dr. W. Paton Philip, and two Tuberculosis Nurses. The volume of work undertaken at or in connection with the Dispensary during the year is indicated by the following figures:—

1. Cases examined or treated were as follows:—

			<i>Cambridge.</i>	<i>Rural.</i>	<i>Total.</i>
New Cases	...	...	289	257	546
Old ,,	...	...	620	796	1416
			909	1053	1962

2. Visits of Patients to Dispensary:—

			<i>Cambridge.</i>	<i>Rural.</i>	<i>Total.</i>
Insured Persons	...	...	318	255	573
School Children	...	...	242	207	449
Other Uninsured Persons	...	...	165	118	283
			725	580	1305

## 3. Visits to Homes:—

(a) *By Tuberculosis Officer:—*

			<i>Cambridge.</i>	<i>Rural.</i>	<i>Total.</i>
Insured	...	...	130	407	537
School Children	...	...	296	172	468
Other Uninsured	...	...	98	291	389
Total 1929			524	870	1394
,, 1928			374	1005	1379

(b) *By Dispensary Nurses:—*

			<i>Cambridge.</i>	<i>Rural.</i>	<i>Total.</i>
Insured	...	...	364	359	723
Uninsured	...	...	631	400	1031
Total 1929			995	759	1754
,, 1928			972	666	1638

(c) *By General Nursing Staff:—*

			<i>Cambridge.</i>	<i>Rural.</i>	<i>Total.</i>
Insured	...	...	—	724	724
Uninsured	...	...	—	681	681
Total 1929			—	1423	1423
,, 1928			—	1646	1646

## Grand total home visits:—

1929	...	...	1519	3052	4571
1928	...	...	1346	3317	4663

Specimens of sputum examined bacteriologically during the year at the Dispensary numbered 230, the tubercle bacillus being found in 27. X-rays examinations undertaken by the Tuberculosis Officer at the Dispensary numbered 1,110, of which 203 were for screening only and 907 for development of a film.

The scheme of dental treatment at the Dispensary includes the uninsured and insured persons not in a position to receive dental treatment from their Approved Society, as well as those for whom part of the cost is paid. Altogether 51 patients received treatment during the year, including 40 new cases. Treatment includes the provision of artificial dentures, and part payment is recovered from the patient where practicable. Assistance was also given in the purchase of splints and other appliances for 5 surgical cases of tuberculosis.

*Care and After-Care.*—It cannot be too fully realised that treatment in sanatoria and other institutions is only one phase, and that a comparatively short one, in the life of persons infected with tuberculosis, and that advice and material assistance are needed by the patients in their home and working life for a long period, whether they do or do not enter such institutions. The work of After-Care Associations is therefore of real importance, not merely in aiding the individual patient, but in protecting the community as a whole from infection. To that end the Cambridgeshire Tuberculosis Association is subsidised by the County Council, mainly with the object of securing an adequate food supply, and funds are also received from Friendly Societies to supplement the earnings of tubercular insured persons who are only able to undertake partial employment. The Association concerns itself with adult cases, and is advised by the Tuberculosis Officer. During the year 22 cases, half of whom were insured

persons, were aided, and of these 12 were at work and 6 in sanatoria. Financial aid was given for much longer periods than previously, an essential feature owing to the very chronic nature of the disease.

In his annual report Dr. Philip makes the following statement:—

“ The Association has again concentrated mainly on that type of case where the disease is early, and the return to more or less full work is reasonably expected, but it has not lost sight of other types of case requiring assistance. It is often found necessary to make grants, particularly to women, while waiting for or undergoing sanatorium treatment, in order to provide adequate domestic help. Their burden and mental anxiety are thereby relieved. We find in such cases that recovery is more rapid, when adequate provision in this respect is made. Again, it is sometimes necessary to make grants to the more advanced and acute type of case, while undergoing treatment at home. This is also with a view to providing domestic help, thereby relieving anxiety, and tending in some small measure to prevent the spread of infection.

The Association has not confined its activities entirely to ex-sanatorium patients. Those in the very incipient stages of the disease have received grants whilst undertaking light work, the Association supplementing wages where these fall short.”

In addition to their grants to the Association, the Public Health Committee have continued to give direct assistance during the year by supplying 22 tubercular children not in attendance at school with milk, while the Education Committee have provided school children of the pre-tubercular type, but not actually tubercular, with malt and cod liver oil.

*Sanatorium Accommodation.*—The County Council provide this form of treatment for adults, insured or uninsured, and for children. It will be seen from the following table, which summarises the cases treated during the year, that the number of ex-service men, for whom the Treasury accept full responsibility, now form a very small proportion of the total treated.

	<i>In Sanat.</i>		<i>Total.</i>
	<i>Jan. 1st,</i>	<i>Admitted.</i>	<i>Treated.</i>
	<i>1929.</i>		
Ex-Service Men ...	8	11	19
Adult Male Civilians	36	48	84
Adult Females ...	26	47	73
Children ... ..	30	40	70
	<hr/>	<hr/>	<hr/>
Total ...	100	146	246
	<hr/>	<hr/>	<hr/>

Evidence of progress in coping with tubercular infection in the Administrative County is furnished by the fact that not only was the number of patients admitted to sanatorium during the year appreciably smaller than in 1928 (246 compared with 272), but the waiting list is very much shorter, and the Council have been able to give up 16 beds which have been reserved for children in the Oak Bank Institution for some years.

The County Council do not themselves manage a sanatorium, but pay for the maintenance of their patients in existing institutions. The men are almost all accommodated at the Papworth Tuberculosis Colony, where also some women and children are admitted. The total of 59 reserved beds is now made up as follows:—

Papworth Tuberculosis Colony. Beds reserved for men, 30. All stages of pulmonary tuberculosis; also surgical cases.

Bramblewood, Holt. Beds for women, 14. Pulmonary cases, excluding advanced cases.

Ipswich. Beds for children, 3.

Children's Sanatorium, Holt. Beds for children, 12. Early pulmonary cases.

Smaller numbers of pulmonary cases are sent, without reservation of beds, to other institutions, while unreserved accommodation is obtained for surgical cases at Addenbrooke's Hospital, Cambridge, mainly for operative treatment, and at Lord Mayor Treloar's Hospital, Alton, for conservative treatment.

The following figures show the immediate results obtained among patients whose institutional treatment terminated during the year. Five observation cases are not included.

			<i>No</i>	<i>Died</i>
			<i>Material</i>	<i>in Sana-</i>
			<i>Improve-</i>	<i>torium.</i>
			<i>Quiescent</i>	<i>Improved.</i>
Pulmonary:				
No T.B. in sputum	59	10	1	—
T.B. in sputum				
Early ... ..	5	5	1	1
Middle ... ..	2	5	3	7
Late ... ..	—	—	2	5
Non-Pulmonary:				
Bones and joints ...	7	1	—	3
Abdominal ... ..	3	—	—	—
Other organs ... ..	1	—	—	1
Peripheral glands ...	10	2	1	—

Summarising the above as regards the pulmonary cases, which formed 78 per cent. of those treated in institutions,

the condition on discharge of those apparently in the earlier or middle stages at the time of admission was that in 66 cases disease was in a quiescent state, 20 others showed improvement, and 5 showed no material improvement, while 8 died in the institution. Of 7 admitted in an advanced stage, 5 died; they were admitted for isolation till the termination of the illness, their own comfort and the safety of the public being thus secured.

### VENEREAL DISEASES.

There was no change in the County Council's scheme for combating venereal diseases during the year. It includes arrangements for pathological diagnosis, treatment at the centre conducted at Addenbrooke's Hospital, Cambridge, the supply of special drugs to medical practitioners experienced in their use, and propaganda work undertaken by the Cambridgeshire Branch of the British Social Hygiene Council. The scheme appears to be generally adequate to the needs of the area.

*Treatment Centre.*—The constituent Authorities for the treatment centre at Addenbrooke's Hospital are the Cambridgeshire, Isle of Ely, and Huntingdonshire County Councils, but patients are dealt with from other areas also. Any person is entitled to receive treatment free of charge, and can obtain particulars as to hours of attendance by application to the County or District Medical Officers of Health. Afternoon and evening clinics are held weekly for both sexes, at separate hours, and six beds are reserved for in-patient treatment. Facilities are afforded for irrigation of cases of gonorrhoea between clinic days, and are mainly taken advantage of by male patients. For the information of the public, posters advertising the treatment facilities provided have been supplied to the Town Council for display in public conveniences in

Cambridge, and the proprietors of licensed houses throughout the County have kindly assisted in a similar manner.

The work done at the treatment centre during 1929 is summarised in the following tables. Tables I. and II. relate to the whole area served by the clinic, while Table III. deals solely with Cambridge and the Rural Districts of the Administrative County.

TABLE I.

	<i>Male.</i>	<i>Female</i>	<i>Total</i>
Under treatment on January 1st, 1929 ...	121	43	164
Old cases readmitted ...	17	15	32
“ First time ” patients during 1929 ... ..	150	55	205
Total under treatment ...	288	113	401
Left without completing treatment ... ..	108	19	127
Completed treatment but not final tests ... ..	40	22	62
Completed treatment and tests ... ..	56	22	78
Transferred to other Treatment Centres ...	9	5	14
Under treatment at end of year ... ..	66	40	106
Out-patient attendances:			
(a) On clinic days ...	1221	488	1709
(b) On intermediate days ... ..	3841	13	3854
(c) Total ... ..	5062	501	5563
Aggregate “ in-patient days ” ... ..	363	447	810

TABLE II.

	<i>Cambs.</i>	<i>Other Counties</i>	<i>Total 1929.</i>	<i>Total 1928.</i>
New out-patients during 1929 (for first time) ...	136	69	205	179
*Total out-patient attendances ...	4883	680	5563	4386
Aggregate in-patient days ...	518	292	810	708
Doses of salvarsan substitutes ...	203	343	546	850

TABLE III.

## CAMBRIDGESHIRE PATIENTS.

	<i>1929.</i>	<i>1928.</i>	<i>Increase or Decrease per cent.</i>
New out-patients ...	136	109	+25
*Total out-patient attendances ...	4883	3728	+31
Aggregate in-patient days	518	306	+86

\* These figures include 3,854 intermediate attendances for irrigation, etc., paid by Cambridgeshire patients.

Since the treatment centre was first opened in 1917 it has been attended by 3,391 patients, who have made 22,249 attendances on fixed clinic days. Of these, 1,567 were Cambridgeshire residents, who attended 14,302 times on the days on which the medical officers were in attendance. These figures do not include intermediate attendances for irrigation, which in 1929 numbered 3,854, all paid by Cambridgeshire patients.

The records of centres for the whole of England and Wales indicate a considerable reduction in new infections from syphilis. But if the general assumption be correct that the proportion of gonorrhœa to syphilis patients in the general population is about 6 :1, the statistics from the centre show that gonorrhœa patients, and especially women, have not attended to the same extent as syphilis patients. The proportion of gonorrhœa cases is, however, increasing appreciably, and to that extent the disease is coming more under control.

The statistics relating to patients from the whole area served by the Addenbrooke's Hospital centre show a proportion of gonorrhœa to syphilis male patients fluctuating from year to year, but the proportion in 1929 was 6 :1, though for female patients it did not exceed 2.5 :1. These figures would suggest satisfactory attendance by male patients, with the experience common elsewhere that female gonorrhœa patients do not yet attend to the extent desired. Separate figures for the sexes are not given for Cambridgeshire patients alone in the annual official returns, but, taking Cambridgeshire figures as a whole, the proportion of syphilis to gonorrhœa patients has decidedly increased of recent years from approximately 2 :1 to 6.5 :1 in 1929. Erroneous conclusions can easily be drawn from comparatively small figures, but taking these as they stand, together with the fact that the attendances on intermediate days for treatment of gonorrhœa are almost all of males, it would appear that Cambridgeshire male patients as a whole are availing themselves satisfactorily of the facilities provided for treatment, but that female gonorrhœa patients are not yet attending to the extent which is desirable, a difficulty which is common to the rest of the country.

There are 8 medical practitioners in the area approved for the free supply of arseno-benzol compounds for the treatment of syphilis, but the great bulk of this special form of treatment is carried out by the medical staff of the Treatment Centre.

*Laboratory Diagnosis.*—Under the Council's scheme specimens are examined free of charge to medical practitioners by pathologists holding University posts. During the year 395 specimens were tested by the Wassermann reaction for syphilis, and 282 were submitted for bacteriological examination, as against 386 and 283 specimens respectively in 1928. Of these, 379 specimens were sent from the treatment centre. The total number of specimens examined since the scheme was first instituted in 1917 is 4,602 for the Wassermann reaction and 3,759 for bacteriological examination.

For propaganda work, see Health Education, page 31.

## BLIND PERSONS ACT,

The County Council are the Local Authority specifically charged with promoting the welfare of the blind under this Act. The duty of keeping the register of cases is carried out for them by the Cambridgeshire Society for the Blind. Sixteen names have been added during the year, and the number now on the register is 203 (Cambridge 102, rural area 101). There are also 12 cases on the observation list.

A satisfactory feature is the age distribution of the blind on the register. In the country generally the increase in the number of registered blind persons is largely among those over 50 years of age, due largely to improved registration, but there is no similar increase among blind children recorded, and out of 52,840 persons registered in England and Wales only 258 are below five years of age,

suggesting the value of preventive measures taken through the Ophthalmia Neonatorum Regulations. On the Cambridgeshire register there are no blind children under five, while blind persons of 50 and upwards constitute 79 per cent. of the total, against 60 per cent. in 1926-27, when the Society was reorganised.

The other executive functions of the County Council are delegated to the Society for the Blind, who now receive from the Council an annual grant of £950, the use of which is restricted to administrative purposes. This sum includes the Government grant formerly paid direct to the Society by the Ministry, but now included in the new block grant. The Society employ two Home Visitors, one for Cambridge and one for the rural area, who visit regularly all blind persons on the register, and report any change in circumstances or any necessities arising. To some the Home Workers give lessons in Braille or in handicrafts, while they assist others to obtain pensions and pay out to them money due from Pensions Societies.

Of the total number of blind persons on the register aged 16 and upwards, 2 are under training, 2 trained but unemployed, 1 trainable, 15 home workers, 16 employed elsewhere, and 164 unemployable. The home workers are aided by the Home Visitors on both the educational and business side, and the sale of their finished articles is facilitated at the Society's Depot in Emmanuel Street, Cambridge, as well as at the weekly cattle market, at flower shows and on other occasions.

The large number of unemployable blind will be noted. Some of these will be aided by the Public Assistance Committee of the County Council as the successors of the Guardians, but there are many whose circumstances do not enable them to be dealt with in this way and are aided

by weekly grants from the Society in money or in kind. Such widely varying forms of assistance have been given as conveyance to hospitals, payment of doctors' bills, provision of surgical appliances, dental treatment, tools, payment of rent, and in other ways. Funds for these purposes are small and voluntary assistance of the kind much needed.

### MENTAL DEFICIENCY ACT.

During the year 41 cases newly notified under the provisions of the Mental Deficiency Act were reported upon to the Committee. Of these, 6 were notified as "neglected" (5 by Guardians and one by the C.V.A.M.W.), 14 by the Borough and County Education Committees, one by the London County Council, one by the Borough Police, and three privately. There were also brought to the notice of the Committee for ascertainment purposes 16 children resident in the rural area on their attaining the age of 16.

The instructions given regarding the foregoing new cases were as follows:—

Certified Institutions on petition ... ..	6
Certified Institutions by Order of Court ... ..	2
Guardianship Order on petition ... ..	1
Statutory supervision ... ..	9
Referred for voluntary supervision ... ..	16
Not subject to be dealt with ... ..	5
Sent by Poor Law Guardians to Home ... ..	2
	—
	41
	—

Of the 9 defectives requiring admission to certified institutions or Guardianship, 6 were admitted in 1929, one is awaiting presentation of petition, and 2 were eventually

not proceeded with. Two old cases on reconsideration were sent either to Certified Institutions or placed under Guardianship. The number therefore actually admitted to certified institutions during the calendar year 1929 was 8. During this period one defective died, one was discharged from certified institution, and one was admitted to a Mental Hospital from Guardianship. In one case the Order lapsed and no further Order was obtained.

Five defectives were given leave of absence from institutions on licence with a view to eventual discharge if this proves reasonably practicable. This policy is followed in the case of patients who respond well to training and for whom proper care and control can be secured. Should the trial fail, the patient can at once be returned to the institution.

Since 1913, when the Council first began to administer the Act, 116 defectives have been placed under statutory supervision (undertaken mainly by the Voluntary Association), 170 have been sent to institutions, and 13 have been placed under Guardianship. Allowing for deaths, discharge to homes and transfer to mental hospitals and other institutions, there remained at the end of the year under review 119 cases who were being maintained in institutions (includes 12 on licence and 4 in State Institutions), 7 under Guardianship, and 79 under statutory supervision in their homes, making a total of 205 under the control of the Local Authority, approximately 1.6 persons per 1,000 of the population.

In addition to these defectives subject to be dealt with under the Acts, there are ascertained by the Local Authority 248 defectives under voluntary supervision in their homes, and one defective whom they are assisting to maintain in an institution under their permissive powers.

These figures do not include high grade defective children of school age who come within the purview of the Local Education Authorities until they attain the age of 16.

The County Council have no institution of their own, but pay for the maintenance of defectives in more than twenty institutions where it is possible to gain admission for them, the largest number of defectives from this area being received into the Royal Eastern Counties' Institution at Colchester. For reasons beyond the control of the County Council the scheme of extension approved by the Council since 1924 in conjunction with the Essex and West Suffolk Councils, which will add 34 places to those available for this County, has not yet been carried out. Institutional accommodation elsewhere is seldom obtainable and the Acts are being administered with great difficulty. It is a matter for consideration whether one of the Poor Law Institutions may be adapted to mental deficiency requirements. In the meantime the Littleton House Institution at Girton has become a branch of the Royal Eastern Counties' Institution, and a supplemental agreement was entered into for the reservation of beds for the Council when it should be used for adult cases.

The arrangement continues by which the Cambridge-shire Voluntary Association, in return for an annual grant, has since 1913 assisted the Council in its duties in various ways, of which the chief are the statutory supervision of defectives in their homes, the ascertainment of defectives, and notification of those who appear subject to be dealt with under the Mental Deficiency Acts. They also manage the newly formed occupation centre at Cambridge for defectives under supervision in their homes. For all these services they receive an annual grant from the County Council fixed for three years as from April 1st, 1930, under the provisions of the Local Government Act, 1929.

An Occupation Centre was opened in Cambridge in October, 1929, to comply with the duty laid on the County Council by the provisions of the Mental Deficiency Act, 1927, to provide suitable training or occupation for defectives under supervision in their homes. It is managed for the Council by the Cambridgeshire Voluntary Association, who have reported on the first six months' working. The Centre is open on five half days per week, has 21 names on the register, 10 statutory and 11 voluntary cases. The average attendance per session was 7 and it is expected that this will increase now that a difficulty has been overcome by the appointment of an escort to the Centre. Marked improvement is reported in the great majority of cases in such matters as speech, personal habits and general behaviour, and the parents have shown their appreciation in various practical ways.

## HEALTH EDUCATION.

Probably the most important form of health education carried out by the County Council is the advice given to the mothers in the care of their own health and that of their young children by the Health Visitors under the Maternity and Child Welfare scheme. Within the same category, but on a much more limited scale, is the opportunity for more systematised instruction at the voluntary maternity and child welfare centres subsidised by the Council. The educational work undertaken by the school nurses and tuberculosis nurses also should not be forgotten. As far as developed, the instruction in mothercraft and cookery given to older girls at school is a contribution of direct value to the public health, and its scope will be greatly widened by such developments as the Sawston Village College and the grouped school system recently approved by the Council.

Apart from the foregoing, definite propaganda campaigns have again been carried through by or for the Council in connection with Maternity and Child Welfare, and the control of Venereal Diseases.

*Maternity and Child Welfare.*—During the financial year, the Maternity and Child Welfare Committee have for the fifth year in succession organised a series of film exhibitions with brief explanatory talks, in six of the larger villages or groups, attended by about 350 mothers. The films were lent by or hired from the National Baby Week Council, the Dental Board of the United Kingdom and the Health and Cleanliness Council. They illustrated the need for antenatal care of the mother, the working of infant welfare centres, the value of sunlight as a factor in the health of children, cleanliness in relation to maternity, and the care of the teeth in the child. Undoubtedly these exhibitions have encouraged the formation of new maternity centres, and it may reasonably be hoped that they have encouraged those already in existence.

The Council have also again subsidised the small Travelling Health Exhibition organised by the Cambridgeshire Federation of Women's Institutes, which visited a fresh group of villages during the year under the direct management of Miss D. Nichols. It deals principally with child welfare, though other matters such as clean milk, food values and the care of the teeth are included. The Federation are to be complimented on the success of this Exhibition, which was attended largely by adults (including men) and school children, and particularly on its eminently practical character which greatly enhances its value. The fact that other County Councils are availing themselves of it speaks for itself. Financial assistance to other health propaganda work undertaken by the Federation might with

advantage receive the favourable consideration of the Council.

*Venereal Diseases.*—The Council have resolved to make a direct grant to the central fund of the British Social Hygiene Council, a body which is of value to them in preparing films for the education of the public on the prevention of venereal infections, a group of diseases which cause much loss of life and seriously affect the physical and mental efficiency of the nation. They have also for the thirteenth year in succession made a grant to the Cambridgeshire Branch for a campaign of film exhibitions and lectures supplied through the central body. In Cambridge, three meetings for men were attended by about 400 residents and undergraduates, two other meetings were attended by about 220 women, while five village meetings had a total attendance of about 420 people. As usual, considerable interest was shown by the audiences, and a good deal of literature was purchased.

In addition to this work undertaken for the County Council the Branch secured the services of Professor Winifred Cullis, of London University, to address audiences under the auspices of the National Council of Women on health education and biological teaching in schools, subjects which have a special bearing on the prevention of social diseases through correct habit formation in children and young people. Many teachers were among the audiences, and the lectures were felt to have served a useful purpose.

## SCHOOLS.

Under the County Education Committee's system of notification by Head Teachers the Public Health Department received information of 213 outbreaks of infectious disease of all types, those notifiable under Public Health

legislation being diphtheria from 27 and scarlet fever from 32 schools respectively. For enquiry into and advice regarding the non-notifiable cases thus brought to notice 2,135 home visits were paid by the School Nurses, and much correspondence was carried on for the guidance of the Teachers. Of 29 special visits to the schools by the medical staff, 22 were for diphtheria, at which 195 swabs were taken, and 7 were for scarlet fever. To guard against the possibility of unrecognised smallpox being introduced, all outbreaks of alleged chickenpox are medically verified, the same precaution being taken where mumps is reported, so as to ensure that the outbreak is not one of diphtheria.

As the policy of reliance upon exclusion of individual children in preference to closure of schools, except in special circumstances, is not fully understood, it may here be explained that closure is seldom resorted to unless the school appears to be the factor responsible for the spread of infection. Among other reasons is the danger, during closure, of undetected cases occurring and spreading infection, which would have come to light through non-attendance had the school remained open. By agreement the issue of closure certificates is left in the hands of the School Medical Officer, who consults the local Medical Officer of Health where necessary, and thus a uniform policy throughout the area is secured.

Apart from guidance as to school attendance, the greatest value of the visits of the School Nurses to the homes is the opportunity afforded for educating the mothers as to the care of children suffering from measles and whooping cough, diseases which have each caused more than 50,000 deaths in England and Wales among children under 15 years during the past ten years.

In view of the extensive programme of building of

schools resolved upon by the Council in connection with developments under the Hadow scheme it will be well to keep in the foreground the principle of construction on open air lines and in such a manner as to admit direct sunlight. According to Sir George Newman, 80 per cent. of the plans submitted to the Board of Education for approval at the present time include proposals for throwing open to the outside air whole portions of the classrooms, it being recognised that abundance of fresh air and sunlight is of the first importance to the health of the normal child as well as to the sick.

## INSPECTION AND SUPERVISION OF FOOD.

The position at the end of 1929 as regards graded milks was, that licences were granted or renewed by the Ministry of Health to two firms for the production of Certified Milk and to one firm for the production of Grade A (tuberculin tested) milk, and one firm was licensed to produce Grade A milk. Distributors' licences comprised 2 for Certified Milk, 4 for Grade A (TT), one for Grade A, and one for Pasteurised Milk.

In Cambridge, of samples of graded milk taken for bacteriological examination, 18 of 19 samples of certified milk, 11 of 12 samples of Grade A (Tuberculin Tested) milk, and 11 samples of Pasteurised milk were up to the prescribed standard. Of 41 samples of ordinary milk also examined, 18 reached Grade A standard.

The District Councils are responsible for the general administrative control of the sanitary condition of premises on which milk is produced and of the measures for cleanly production. The County Council are responsible for the health and inspection of the cattle, and as an Education

Authority they are in a position also to raise the general standard of cleanliness in milk production. As was foreshadowed in my last annual report, the second Clean Milk Competition organised by the Agricultural Education Sub-Committee showed a considerable advance on the previous Competition both as regards bacteriological and physical evidence of cleanliness. Almost three-quarters of the samples received reached the bacteriological standard of cleanliness prescribed by the Ministry of Health for Grade A milk, results which can only be the outcome of direct and sustained endeavour. Such competitions, while immediately concerned with cleanly methods of production, should also tend to effect an all-round improvement, including quality as well as cleanliness, and should thus serve a doubly valuable purpose.

Reporting regarding the Newmarket Rural District, Dr. Morgan notes that while dairies are generally in cleanly condition, some of them scrupulously so, the cows and cowsheds are less satisfactory, more particularly when the number of cows kept is small. Insufficient labour is often employed for the necessary attention to be given to small herds, but with large herds and adequate labour "conditions are generally much more satisfactory, and there is evidence that most of such cowkeepers are alive to the importance of a pure milk supply and take practical steps towards its attainment."

For the detection of tubercular milk, samples were taken from producers, 32 by the County Council, 31 by Cambridge Town Council, 11 by the Caxton and Arrington Rural District Council, and 10 by the Melbourn Rural District Council. From the biological test 3 samples gave positive results and were followed up as follows.

1. Taken by County Council. Produced in the Rural Area from a herd of 6 cows. Six further samples

taken by the Veterinary Inspector and one cow with a tubercular udder slaughtered.

2. Taken by Cambridge Town Council. Produced in the Rural Area. A further 12 samples taken by the County Veterinary Inspector from a herd of 36 cows, all of which gave a negative result, and no clinical evidence of tuberculosis was detected in the cattle. Six cows had been sold from this herd in the interval between the taking of the original sample and the receipt of the report; they were resold in the market and could not be traced further. This case illustrates one of the difficulties encountered in dealing with this problem.

3. Taken by the Caxton and Arrington Rural District Council. There was only one cow on the producer's premises, and a further sample taken by the County Veterinary Inspector confirmed the previous result. The cow was therefore slaughtered under the provisions of the Tuberculosis Order, 1915.

In addition one sample taken by the Cambridge Town Council gave a suspicious result, but this was not confirmed on re-sampling.

Altogether, including samples taken by the County Veterinary Inspector during inspections of suspected herds, 103 samples were taken in the Administrative County.

*Meat.*—There is no public abattoir within the County area. In Cambridge, 4,103 inspections of slaughterhouses were made, and 102 cwt. of meat was condemned. In Chesterton Rural District 140 lbs. of meat were destroyed, and it is noted that there is much less exposure to contamination than formerly. In Melbourn Rural District 3,543 carcasses were inspected; 10 carcasses and 71 parts of carcasses were condemned. No unsound food was discovered in Newmarket Rural District, and Dr. Morgan notes an

increasing tendency to seek the Inspector's advice in case of doubt; verbal notices regarding the practice of hanging meat outside meat shops were complied with.

## SALE OF FOOD AND DRUGS ACTS.

*Rural Area.*—In this area the Acts are administered by the County Council. The total number of samples taken and reported upon by the Public Analyst was 217 (91 in 1928), of which 185 were taken formally and 32 informally. The samples comprised fresh milk 128, butter 17, sausages 13, Seidlitz powder 7, and smaller numbers of other articles. Of the 217 samples analysed, 39 taken formally and 5 taken informally, a total of 44 samples, proved not to be genuine. With two exceptions, all the 128 samples of fresh milk were taken formally. The non-genuine samples were as follows:—

Fresh milk—29 formal and 2 informal samples. Of these, 27 (including one informal) were deficient in fat in quantities varying from 1.0 to 40.66 per cent., and 4 (including one informal) contained added water in quantities varying from 4.74 to 6.35 per cent.

Skimmed milk—1 formal sample. Contained 3.44 per cent. of added water.

Aspirin tablets—1 sample. Contained a trace of salicylic acid.

Sweet spirit of nitre—1 sample. Deficient 60.5 per cent. in ethyl nitrite.

Flour—1 sample. Contained 0.1 per cent. (instead of 0.4 per cent.) of ammonium persulphate.

Seidlitz powder—5 samples (1 informal). Deficient in tartaric acid in quantities varying from 28.32 to 66.88 per cent.

Sausages—2 samples. Contained undeclared preservatives (benzoic acid and sulphur dioxide).

Margarine—1 sample. Attacked by fungoid growth.

As regards certain of the foregoing, caution or advice was considered to meet the needs of the case. Those in which legal action was taken resulted as follows:—

1. Milk 15.01 per cent. deficient in fat. Convicted and fined £2 0s. 0d.

2. Milk 18.35 per cent. deficient in fat. Convicted and fined £2 0s. 0d.

3. Milk 26.66 per cent. deficient in fat. Convicted and fined £1 0s. 0d.

4. Milk 17.03 per cent. deficient in fat. Convicted and fined 10/-.

5 and 6. Seidlitz powder 48.64 per cent. and 42.25 per cent. deficient in tartaric acid. Convicted and fined £3 0s. 0d. and 10/- and analyst's fee.

7, 8 and 9. Sausages contained undeclared preservative. Convicted and fined £2 0s. 0d., £2 0s. 0d. and £1 0s. 0d.

10. Refusing to sell sausages to Inspector. Fined £3 0s. 0d.

11. Sweet Spirit of Nitre. Deficient in ethyl nitrite 60.5 per cent. Ordered to pay costs 19/-.

*Cambridge Borough.*—Samples submitted to the public Analyst numbered 252, of which 14, or 5.5 per cent., were reported not to be genuine. The samples included 115 of milk, of which 25 were taken formally, and of these formal

samples 3 were reported not to be genuine, the action subsequently taken being as follows:—

- (1) Sample 13.33 per cent. deficient in fat. Letter to retailer. Subsequent sample genuine.
- (2) Sample contained 10.47 per cent. of added water. Convicted and fined £2.
- (3) Sample 6 per cent. deficient in fat “Appeal to the cow.” Sample genuine.

Other non-genuine samples included 6 of Seidlitz powder, all deficient in tartaric acid; the vendor withdrew all the stock from sale on communication from the Local Authority. In 4 samples of sausages, the presence of sulphur dioxide as a preservative was not declared regarding two informal samples, but was subsequently declared as regards two check samples taken formally. Two samples, one informal and one formal, of sweet spirit of nitre were deficient in ethyl nitrite, and proceedings taken regarding the formal sample resulted in conviction and a fine of 10/-. An informal sample of Irish whiskey was 4.6 per cent. deficient in alcohol, but could not be checked by a formal sample.

## WATER SUPPLY.

The Local Government Act, 1929 (Sect. 57), empowers the County Council to assist financially in providing or improving water supplies, the sums contributed to be reasonable having regard to the resources of the sanitary district concerned and the circumstances of the case. They may also, by agreement, take over the powers of a District Council with regard to water supply, and the Minister of Health has power in specified circumstances to transfer these functions from a defaulting District Council to the

County Council, as regards any public health function, including water supply.

The new power to share the cost of water supplies with District Councils should be of material assistance in the smaller sanitary districts which are backward in such matters because of their limited financial resources. Application has already been made for such assistance, and a Sub-Committee of the Public Health Committee has been appointed to consider reports from the District Councils as to existing difficulties in their areas.

Items of importance are recorded in the annual reports regarding three Rural Districts.

*Chesterton Rural District.*—In Fulbourn the Cambridge Waterworks Company's main has been extended, and extension at Girton is under consideration. At Cottenham, in view of complaints as to failure of the local company to supply sufficient water and that the water contained paraffin, a report was obtained from the Public Analyst, and the Company have been asked to provide an additional well, chlorinate the water, and carry out certain other recommendations. At Comberton also, the supply from a shallow public well in the gravel is said to be unsatisfactory both as regards quality and quantity, but the cost of a scheme considered was thought to be prohibitive.

*Newmarket Rural District.*—The scheme previously referred to in these reports for improvement of the supply to Cheveley and Wood Ditton of water from deep chalk borings, and the extension of the main to Ashley, was completed in 1929 and is now in operation. The plant at Cheveley is now duplicated.

The difficult problem of remedying the unpalatability of water obtained from a deep boring in the chalk at the Dullingham and District Waterworks has further engaged

the attention of the District Council. Following a visit of inspection from the Ministry of Health further investigations were carried out by another firm of analysts, and the broad conclusions were reached that the excessive deposit of iron oxide in the mains is due to the chemical constituents of the water, the intermittent pumping and method of delivery into and from the tank, and the lack of a circulatory system in the mains. The recommendations made comprise water softening, alterations in the method of delivery into and withdrawal from the service tank, adequate flushing of the service mains and the elimination of dead ends when opportunity is afforded. An alternative scheme of linking up the Dullingham, Stetchworth and Cheveley mains, the water being derived from the Cheveley source, has been before the District Council.

*Linton Rural District.*—In this area the villagers rely on wells, filtered water from ponds, or springs. Three alternative schemes submitted to the District Council for the supply of the whole area, the estimated cost of which varied from £59,400 to £67,000, were not adopted on financial grounds, and application was made eventually for assistance under Sect. 57, Local Government Act, 1929, to carry out a scheme for Balsham and five other villages where the need is most urgent. As the villages stand on high ground 300-400 feet above sea level, existing bored wells into the chalk are necessarily very deep, involving much hand labour in raising water, the distances to be walked with heavy pails of water are often considerable, and sources of supply which are liable to surface pollution, such as ponds, are therefore resorted to. Some of the public wells also are shallow and liable to pollution. On these grounds there is an evident need of an improved supply, which it is proposed to furnish by five deep wells into the chalk, the water to be raised by oil engines, at an estimated

capital cost of £12,523. The estimated annual expenditure is £1,248, a possible income of £445 leaving a deficit of £803. The object in multiplying wells as against one boring for all six villages is to save the heavy cost of mains between the villages. The question of financial assistance is at present before the County Council.

## DRAINAGE, SEWERAGE AND REFUSE DISPOSAL.

There are few sewers in the villages and a conservancy system is almost universal except for the larger houses, which have water closets and cesspools. Conversion of privy pits into pail closets proceeds with varying degrees of rapidity. The pit privy is said to have almost entirely disappears in Chesterton Rural District, whereas in Newmarket Rural District, for example, this type still persists in connection with about 53 per cent. of the houses. This makes it all the more important that the contents should be properly disposed of, but scavenging is undoubtedly one of the weakest points of rural sanitation, although it has a distinct bearing on health.

Schemes for disposal of unburnable rubbish were stimulated by the Rural Community Council, and periodic collections have been organised in many villages by the Parish Council, Women's Institute or other local body. Apart from this, which is more a matter of the amenities than of health, there are but few parishes in which scavenging schemes are in operation. Earth closets are cleaned at Waterbeach, and house refuse collected weekly at Histon and Impington, all in the Chesterton Rural District, where a general scheme of scavenging for all larger villages is under consideration. Dr. Morgan comments on the urgency of this problem in his reports on the Newmarket and Linton Rural Districts, and instances specially the

villages of Sawston, Linton and Duxford in the Linton area.

Very few of the villages have sewers and disposal works. In the large parish of Soham, in Newmarket Rural District, Dr. Morgan again notes the urgency of the problem, which is, in his opinion, rapidly assuming serious proportions owing to the number of new houses built and the possibility of further increases in the number of water closets. Complaints have been received of the pollution of the river and ditches by discharge of crude sewage, which is, of course, directly contrary to the provisions of the Public Health Act, 1875. A scheme for improvement of the sewage disposal works at Sawston, in the Linton Rural District, is awaiting the approval of the Government Departments concerned. In Chesterton Rural District the active building operations in the parishes of Great Shelford, Trumpington, Histon and Girton are raising the question of sewage disposal. At Histon also the question of disposal of the effluent from the factory still presents difficulties; over five miles of irrigation trenches are said to have been completed during the year.

## HOUSING OF THE WORKING CLASSES.

*Rural Housing.*—Returns recently made by the Rural District Councils state (a) that since 1919, a total of 2,480 houses has been built in the rural area, 1,188 by the District Councils and 1,292 by private persons, (b) that 199 houses are overcrowded, and (c) that there are 317 unfit houses, of which 253 are occupied and 64 unoccupied. The stated total of new houses represents the full post-War effort, but the activity displayed by the separate Authorities may perhaps be more conveniently shown by comparing the actual estimate made by each District Council of its housing needs in a return made to the County Council in 1924 with

the number of houses stated in their annual housing returns to have been built up to and including 1929.

			<i>Built Since.</i>		
			<i>Estimated</i>	<i>By District</i>	
			<i>in 1924.</i>	<i>Council.</i>	<i>Total.</i>
Chesterton	...	...	300	368	966
Caxton and Arrington	...	...	136	78	128
Linton	...	...	50—80	176	243
Melbourn	...	...	106	44	98
Newmarket	...	...	262	152	287
Swavesey	...	...	None	—	22

By public and private effort therefore, the number thought in 1924 to be needed has practically in all cases been built and in some Districts considerably exceeded. From these figures, and from the Registrar General's statistics as to families, the number of houses built per 1,000 families from 1925 to 1929 would appear to be as follows:—

Chesterton	...	...	...	...	158
Caxton and Arrington	...	...	...	...	69
Linton	...	...	...	...	93
Melbourn	...	...	...	...	44
Newmarket	...	...	...	...	61
Swavesey	...	...	...	...	32

Judged from this standpoint, the effort, and quite possibly the need for it, has varied, but it is clear that considerable effort has been made in the rural area as a whole. Although houses have actually been built in excess of the estimate, wastage has of course been going on which will necessitate further building operations, public or private, and the proposals of certain of the District Councils are stated in the summary of the annual reports from the Districts which follows.

As regards overcrowding, no precise conclusion can be arrived at, as, after allowing for varying populations, the returns recently made to the County Council vary so much in the individual Districts that it is probable that the standard adopted is not uniform. Some may be based on the Registrar General's standard of an average occupancy of more than two persons per room (excluding scullery) and others on cubic space per head. A definite personal impression gained from the visitation reports of Health Visitors to the County Public Health Department is that overcrowding has been very much reduced since the building schemes have been developed. It would, of course, not be practicable to remedy all cases of overcrowding while there are houses still to be built, but much can be done in the meantime to remedy individual cases by other means. In a later paragraph on Linton Rural District, for example, it will be seen that the Council have, by the policy adopted, been able to relieve 24 cases of overcrowding during the year.

The problem of the unfit house cannot be completely solved until the housing shortage has been fully met, but many houses "not in all respects reasonably fit" may be made so by the existing legal remedies where informal representations fail to have the desired effect. During the past year, 63 houses were found to be unfit for habitation, and 258 were found "not in all respects fit." Of these, 204 were remedied by informal or formal action. Further details of action required and steps taken are given in later paragraphs.

*Housing (Rural Workers) Act, 1926.*—All the District Councils in the area are declared by the Ministry of Health to be Local Authorities for the purposes of the Housing (Rural Workers) Act of 1926, the object of which is the improvement of housing conditions for agricultural labourers

and other rural workers by grants or loans for re-conditioning old houses or converting other buildings into dwellings. In Chesterton Rural District grants to the amount of £672 were made during the year in respect of 10 houses. In Linton Rural District 3 houses for which application was made were re-conditioned, making a total of 19 dealt with by the Council under the Act. No applications were received in the Newmarket Rural District and there is no reference to the subject in the other reports. Ten applications were received under the Housing Act, 1925, and loans to the total amount of £3,330 were sanctioned by the County Council for the construction or acquisition of 7 houses. The applicants were individual borrowers; one house was in Cambridge, and 6 in the rural area.

*Housing of County Council's Employees.*—Nine houses have now been completed towards the scheme of eleven houses for the police. Sites were considered by the Standing Joint Committee at Soham and Fen Ditton, but further progress was not made during the year.

Consideration was given by the Education Committee to the provision of houses for Head Teachers of 4 Council Schools. The purchase of one house was completed during the year.

#### *Summary of District Reports.*

The following statement for the year 1929 is compiled from the information given by the Medical Officers of Health for all the Sanitary Districts, including Cambridge, and from the Housing Returns for the year required by the Ministry of Health from the District Councils.

In the whole area of the Administrative County 706 new houses were built during the year, 307 in Cambridge and 399 in the Rural Districts. Of these, 525 were erected with State assistance under the Housing Acts, of which 97 were erected by the Local Authority in Cambridge, and 196 in the Rural Districts, while 232 were built by other

bodies or persons with the aid of the State subsidy, 117 in Cambridge and 115 in the Rural Districts. The remaining 181 were erected by unassisted private enterprise.

The total number of houses inspected for defects under the Public Health or Housing Acts was 2,752, of which 1,306 were in Cambridge and 1,446 in the Rural Districts. Houses inspected under the Housing Consolidated Regulations numbered 1,385 (Cambridge 588, Rural Districts 797). Of the houses inspected, 188 were recorded as unfit for human habitation, 125 in Cambridge and 63 in the Rural Districts, while 1,057 (Cambridge 799, Rural 258) were regarded as "not in all respects reasonably fit for habitation."

A good deal of repair work was as usual accomplished by informal intimation to owners, this resulting in the remedy of defects in 894 houses, of which 696 were in Cambridge and 196 in the Rural Districts. Statutory notices were served for repair of 64 houses (Cambridge 52, Rural 12), and there were subsequently rendered fit by the owners 45 in Cambridge and 8 in the rural area. Two houses were rendered fit by the Local Authority in Cambridge in default of the owners, and one Closing Order became operative by reason of a declaration by the owner of intention to close. Under the Public Health Acts, notices requiring the remedy of defects were served with respect to 182 houses (108 Cambridge, 74 Rural). In consequence, defects were remedied by the owners in 96 houses (Cambridge 62, Rural 34), and, in addition, in 41 instances the Cambridge Town Council acted in default of the owners.

During the year, 94 houses (Cambridge 35, Rural 59) were represented for closure and 79 Closing Orders made (Cambridge 35, Rural 44). Seventeen of these Orders (Rural) were determined, the dwellings having been rendered fit, 7 Demolition Orders were made (2 Urban, 5

Rural), and 19 houses (Rural) were demolished during the year.

In Cambridge, in the ten years ending 1928, a total of 2,148 houses have been erected, 1,070 by the Local Authority and 1,078 by others. The number of applicants for Corporation houses is about 1,000, but some date back several years, and recent enquiries suggest that the actual proportion requiring to be housed may be 400 to 500. The Town Council have authorised the building of 70 houses by the Public Health Committee to meet the needs of families which are urgent on health grounds, such as overcrowding and structural unfitness of the houses at present occupied. Sixteen houses built by the Cambridge Housing Society, Limited, during the year, bring the total built by the Society up to 61 houses occupied by 406 persons, who were living under overcrowded or other insanitary conditions.

In Chesterton Rural District the 94 houses completed during the year bring the number erected by the Local Authority since May, 1924, up to 368, in addition to 100 built under the Act of 1919. Also a further scheme for the provision by the District Council of another 126 houses has been approved by the Ministry of Health. State assistance to private persons has also resulted in adding 65 houses during the year, bringing the total provided by this means up to 429 houses.

In Caxton and Arrington Rural District 8 houses were built by the District Council and 20 by private persons with the aid of the Subsidy.

In Linton Rural District the 78 houses erected during the year were all built with State assistance, 76 by the Local Authority and 2 by private persons. All houses were let to people living in the District, the policy being to let to tenants of cottages overcrowded or otherwise unfit. Dr.

Morgan states that it has thus been possible to close 10 cottages and relieve 24 cases of overcrowding during the year.

In Newmarket Rural District, of 33 houses built during the year, 18 were aided by the subsidy, all built by private persons. No houses were built by the District Council during the year, but tenders were accepted for 22 houses, which have since been commenced. Land has also been purchased and sites are being negotiated in other parishes.

In Melbourn Rural District, the 22 houses erected during the year were all built with the aid of the subsidy, 12 by the District Council and 10 by private persons.

In Swavesey Rural District, 7 houses were built during the year, all by private persons without State assistance.

## VITAL STATISTICS AND INCIDENCE OF INFECTIOUS DISEASE.

The following figures are furnished by the Registrar-General as representing the populations to be used for calculation of birth and death rates for the year 1929. The inclusion of Duxford Aerodrome in the Linton Rural District accounts for the higher figures in the first column, the military population being included for calculation of birth rates but not of death rates.

		<i>For</i>	<i>For</i>
		<i>Birth Rate.</i>	<i>Death Rate.</i>
Administrative County	...	133540	133310
Cambridge Borough	... ..	60730	60730
Aggregate Rural Districts	...	72810	72580
Chesterton	... ..	25760	25760
Caxton and Arrington	...	7569	7569
Linton	... ..	9823	9593
Melbourn	... ..	8088	8088
Newmarket	... ..	19040	19040
Swavesey	... ..	2530	2530

The excess of births over deaths during 1928 yielded a natural increase of the population for the year of 323. In 1929 this was replaced by the unusual experience of a natural decrease, the deaths exceeding the births by 34. This result was contributed to by the continued fall in the birth rate, but the chief reason was the excessive mortality from influenza and from respiratory and circulatory diseases attributed to the extremely cold weather early in the year.

*Birth Rate.*—The statistics for 1929, based on figures furnished by the Registrar-General, are as follows:—

	<i>Registered Births.</i>	<i>Birth Rate per 1,000 living.</i>
Administrative County ...	1763	13.2
Cambridge Borough ...	715	11.8
Rural Districts ...	1048	14.4

The following figures show the reduction as compared with the pre-war records in 1914 in both urban and rural areas:—

	<i>Number of Births.</i>			<i>Birth Rate.</i>		
	<i>Boro'.</i>	<i>Rural.</i>	<i>Total. County.</i>	<i>Boro'.</i>	<i>Rural.</i>	<i>Total County.</i>
1914 ...	996	1393	2389	... 17.4	19.1	18.3
1928 ...	777	1130	1907	... 12.7	15.5	14.3
1929 ...	715	1048	1763	... 11.8	14.4	13.2

The birth rate for Cambridge, 11.8 per 1,000, was, as usual, much below that for the Great Towns (16.6). The rates for the Cambridgeshire Rural Districts, from highest to lowest, were:—Newmarket 16.1 (306 births), Linton 14.9 (146), Chesterton 14.6 (377), Caxton 12.7 (96), Melbourn 12.6 (102), and Swavesey 8.3 (21). Following on War fluctuations, the decline in the birth rate since 1920 has been uninterrupted for Cambridge, and, with fluctuations, has been progressive for the Rural Districts as a whole.

Compared with the average annual rate (19.7) for the five pre-War years 1909-1914, the birth rate for the whole Administrative County in 1929 showed a decline of 33 per cent.

There were 92 illegitimate births in the Administrative County, 52 in Cambridge, 40 in the Rural Districts, compared with 32 in Cambridge, 51 in the Rural Districts, and 86 total in 1928. Calculated as a percentage of total births, the proportion of illegitimate births was 7.3 in Cambridge, 3.8 in the rural area, and 5.2 in the Administrative County, compared with average rates for the previous five years ending 1928 of 4.5 (Cambridge), 4.8 (Rural Districts), and 4.7 (Whole County). The latter rates form a more reliable basis for comparison with those for the three pre-War years 1912-1914 (Cambridge 5.3., Rural 4.8, Whole County 5.0), and show on the whole a little improvement. The present rates, of course, compare very favourably with the high rates during and immediately after the War.

The proportion of *still-births* recorded by the Registrar-General to total births registered was as follows:—

Borough of Cambridge	20 still-births,	or 28.1 per 1,000.
Rural Area	42 „ „	40.0 „
Whole County	62 „ „	35.2 „

These relative proportions fluctuate from year to year.

*Death Rate from all Causes.*—After allowing for deaths occurring away from the usual place of residence, the nett death rate for the whole County was 13.5 per 1,000 (13.4 for England and Wales). This rate was 1.6 per 1,000 above the 1928 rate for the County (11.9), and 1.4 above the average for the preceding five years (12.1). The rates for Cambridge and the rural areas were 12.3 and 14.4 respectively, both appreciably higher than in 1928.

The total deaths in the whole County numbered 1,797 (Cambridge 751, Rural 1,046), being 213 more than in 1928. These exceptionally high figures are attributable to high mortality from influenza and from diseases of the respiratory and circulatory systems, which showed an excess of 207 recorded deaths on the previous year. This experience was common to the whole country, and was the result of the excessively cold spell in February and March.

*Infant Mortality.*—The number of deaths under one year, 81 (Cambridge 34, Rural Districts 47) was in the proportion of 46 deaths per 1,000 births (England and Wales 79). The corresponding approximate rate for Cambridge was 48 per 1,000 births, as usual much below the rate for the Great Towns (79), while the rural rate did not exceed 45 per 1,000 births.

The record of infant mortality is one of the most satisfactory features of the vital statistics for the Administrative County. It shows a steady reduction during each five yearly period from an average of 104 deaths per 1,000 births per annum in the period 1899-1904 to 53 in 1924-1928, and the low rate of 46 in 1929. The loss of life among infants has thus practically been halved in thirty years, and while no doubt improved social conditions have had a considerable influence there can be no question that the schemes of the Local Authorities for maternity and child welfare, aided by voluntary effort, have greatly contributed to this result. A higher standard of education among the mothers and special education in child welfare organised by the Local Authorities have each played their part in the saving of infant life. But the deaths from debility at birth and allied conditions do not show a satisfactory improvement, though they were fewer in 1929, and as they are largely the result of the state of health of the expectant mother, it is clear that there is still much

to be done for the care of the mother in the important ante-natal period.

The following statement of deaths (approximate) per 1,000 births compares the mortality of legitimate and illegitimate infants during the year:—

	<i>Legitimate.</i>		<i>Illegitimate.</i>	
	<i>Mortality.</i>		<i>Mortality.</i>	
	<i>Births.</i>	<i>Rate.</i>	<i>Births.</i>	<i>Rate.</i>
Cambridge Borough	663	51	52	38
Rural Districts ...	1008	47	40	50
Whole County ...	1671	49	92	43

The actual numbers of deaths of illegitimate infants were 2 in Cambridge and 2 in the Rural Districts, a total of 4 in the Administrative County, among 92 illegitimate infants born (Cambridge 52, Rural Districts 40). This is a small number of deaths among illegitimate children and the proportion to births is actually lower than for legitimate children, but the reverse is usually the case. For the five immediately preceding years, 1924-1928, the annual average death rate among illegitimate infants was 89 per 1,000 born.

*Maternal Mortality.*—Deaths of mothers in connection with childbirth numbered 6 (Cambridge 2, Rural Districts 4). Of these, 4 were attributed to puerperal sepsis, and 2 to other accidents and diseases of pregnancy and childbirth. The total numbers of deaths in the Administrative County from these causes during the five years 1924-1928 were 16 from sepsis and 21 from other causes, the approximate average number of deaths per annum being 3 from sepsis and 4 from other causes. This is equivalent to an average annual rate of 4.0 per thousand births, almost identical with the rate for England and Wales (4.11 per

1,000 births) in 1927, the latest comparative figure available.

Of the 5 notifications of puerperal sepsis received, one was from Cambridge and 4 were from the Rural Districts. The 4 deaths registered from this cause (2 Cambridge, 2 Rural Districts) are equivalent to a mortality rate of 2.3 per 1,000 births, against 2.6 for the five years 1919-23 and 1.6 for the five years 1924-28.

Under the Puerperal Pyrexia Regulations, 1926, notification of 22 cases were received, 9 in Cambridge and 13 in the rural area. Arrangements have been made by the Maternity and Child Welfare Authorities, the Town and County Councils, for bacteriological examination, expert clinical opinion, hospital treatment and nursing. In the rural area 2 consultations were arranged for.

*Infectious Diseases.*—The outstanding unsatisfactory features were the mortality from diphtheria, which was again higher than that for England and Wales, and the high death rate, shared by the Country generally, caused by influenza. On the other hand there were very few deaths from scarlet and enteric fevers, measles and whooping cough, and there was no increase in mortality from tuberculosis, in spite of the influenza outbreak and the excessively cold weather in the early part of the year.

*Small-pox.*—One case was notified during the year in Cambridge, the patient being a stewardess on an infected ship from Bombay. The case was a mild one, the contacts were revaccinated successfully and there was no spread of infection. In the rural area as well as in Cambridge, the population is badly protected against infection, owing to the neglect of vaccination. The administration of the Vaccination Acts is transferred to the County Council as from April 1st, 1930.

Chicken-pox is compulsorily notifiable in the Caxton, Newmarket and Melbourn Rural Districts. All first cases of chicken-pox intimated by Teachers from the rural schools are verified by a medical practitioner.

*Scarlet Fever.*—Notifications received during the year numbered 223, compared with 350 in 1928. Of these, 98 were from Cambridge and 125 from the Rural Districts, where the greatest prevalence was in the Chesterton Rural District. The cases were consistently of a mild type. The Dick test has not been resorted to.

Altogether 179 cases, 80 per cent. of those notified, were removed to various isolation hospitals. One death was registered in the Chesterton Rural District, yielding a very low mortality rate.

*Diphtheria.*—The position with regard to diphtheria was again less satisfactory. Notifications numbered 343 against 198 in 1928 and 104 in 1927. Of these, 240 were from Cambridge, and 103 from the Rural Districts. There were 20 deaths, 10 in Cambridge and 10 in the Rural Districts, the mortality rate for the whole Administrative County, 0.15 per 1,000, again exceeding that for England and Wales (0.08). The rate for Cambridge was 0.16 and for the rural area 0.14 per 1,000. Both rates much exceeded that for the Great Towns (0.09), but the proportion of deaths to cases was much higher in the rural area than in Cambridge, viz., 9.7 per cent. as compared with 4.1 per cent.

Altogether 310 cases, or 90 per cent. of those notified, were isolated in hospitals. Bacteriological diagnosis is in general use throughout the County, both by the Local Sanitary Authorities and the respective Education Authorities, swabs being taken during 1929 in Cambridge alone from 2,408 children. Antitoxin is provided by the

Local Sanitary Authorities, and a start was made in Cambridge on Schick-testing and immunisation. By the end of the year 85 children had been tested and 62 who were found susceptible had been immunised.

*Enteric and Paratyphoid Fever.*—Eleven notifications were received in 1929, 4 from Cambridge and 7 from the Rural Districts. One death occurred in the Rural Area. Ten of the cases were diagnosed as paratyphoid, and 5 of them occurred in one family. Eight cases were admitted to hospital.

*Diarrhoeal Diseases.*—The two deaths among children under two years of age were both in the rural area. The death rates per 1,000 *births* were 1.2 for the Administrative County (England and Wales 8.1), nil for Cambridge (Great Towns 10.9) and 1.9 for the rural area. The low rates of mortality from this cause, due largely to greater cleanliness in the care of the food of young children, is one of the causes of the reduction of infant mortality in recent years.

*Whooping Cough.*—One death was recorded in the Rural Area. Nursing facilities are provided for under the maternity and child welfare schemes.

*Measles.*—Two deaths occurred from this cause, one each in Cambridge and the rural areas. For this disease also, nursing facilities are provided.

*Acute Poliomyelitis (Infantile Paralysis).*—Two notifications were received (Cambridge 1, rural area 1). No cases were removed to hospital. No deaths were recorded.

*Cerebro-spinal Meningitis.*—One notification was received (Chesterton Rural District), and no deaths from meningococcal meningitis were recorded. Consultant opinion and serum treatment are provided by the County Council under the Public Health (Cerebro-Spinal Fever) Regulations, 1918.

*Encephalitis Lethargica.*—Five notifications were received, 3 from Cambridge and 2 from the rural area.

None were treated in hospital. Three deaths were recorded in Cambridge and 2 in the rural area, making a total of 38 deaths and 66 notifications since this disease became notifiable in 1919.

*Ophthalmia Neonatorum.*—One notification only was received from the rural area. The child was not admitted to hospital, and no loss of vision is recorded.

*Influenza.*—Deaths attributed to this cause in the Administrative County reached the high figure of 98 in 1929 (Cambridge 37, Rural Districts 61), yielding mortality rates of 0.73 for the Administrative County, 0.61 for Cambridge, and 0.84 for the rural area. (England and Wales 0.74, Great Towns 0.76). Apart from the excessive mortality during the great epidemic of 1918, deaths from influenza have averaged 43 annually during the previous twenty years, which, if applied to the estimated population for 1929 would yield a rate of 0.32 per 1,000. The actual rate was therefore nearly two and a half times the normal, and, as stated earlier, together with mortality caused by the cold weather, caused the total deaths during the year to exceed the births.

*Pneumonia.*—The number of notifications of acute primary and acute influenzal pneumonia received in Cambridge was 38, and in the rural area 58, a total of 96 for the Administrative County, against 52 in 1928. Deaths from this cause numbered 80 compared with 72 in 1928. Of these, 33 occurred in Cambridge and 47 in the rural area. The mortality rate for Cambridge was 0.54 per 1,000 living, for the rural area 0.64, and for the whole County 0.60 per 1,000.

Deaths from influenza and all non-tubercular diseases of the respiratory system combined numbered 306, being in the proportion of 17 per cent. of deaths from all causes,

against 11.5 per cent. in 1928.

*Pulmonary Tuberculosis.*—The total number of pulmonary cases coming to knowledge during the year, whether by notification or otherwise, was 177.

The number of deaths registered from this cause was 89, the same as in 1928. In Cambridge Borough there were 44 deaths, compared with 41 in 1928, the number of deaths registered in the rural area being 45, against 48 in the previous year. The mortality rate per 1,000 living was 0.72 in Cambridge, 0.62 in the rural area, and 0.67 in the Administrative County, compared with 0.67 in both urban and rural areas in 1928. There was thus no loss of ground in spite of the intense cold in February and March. Deaths during the preceding ten years 1919-1928 averaged 93 per annum, compared with 116 during the ten pre-War years 1905-1914.

*Tuberculosis of Other Organs.*—Total cases coming to knowledge during the year, whether by notification or otherwise, numbered 58. The deaths numbered 16, against 15 in 1928. Of these, 9 occurred in Cambridge and 7 in the Rural Districts. The mortality rates per 1,000 living were as follows:—Administrative County 0.12 (0.11 in 1928), Cambridge 0.15 (0.13 in 1928), and Rural Districts 0.10 (0.10 in 1928). Deaths under this heading averaged 27 per annum during the ten years 1919-1928, compared with 37 per annum during the ten pre-War years 1905-1914.

During 1929 the total deaths in the Administrative County from tuberculosis of all organs numbered 105, of which 53 were recorded in Cambridge and 52 in the Rural Districts. These yield mortality rates of 0.79, 0.87 and 0.71 per 1,000. A comparison of the average number of deaths from tuberculosis of all organs during each of the

ten years ending 1928 with the ten years 1905-1914, immediately before the War, shows a reduction from 153 in the former, to 120 in the latter period.

*Cancer.*—There were 236 deaths attributed to cancer, against 246 in 1928. Of these, 105 occurred in Cambridge and 131 in the rural area. The proportion of recorded deaths per 1,000 living was 1.77 in the Administrative County (1.84 in 1928), 1.73 in Cambridge and 1.80 in the rural area, against 1.84 in Cambridge and in the rural area in 1928. Although the rate for 1929 is thus slightly lower than for the preceding year, the rise in recorded mortality from cancer is formidable, and in 1929 reached a point 86 per cent. higher in proportion to the population than in 1900.

FRANK ROBINSON.

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County Hall,  
Cambridge.





TABLE II.

VITAL STATISTICS OF COUNTY FOR 1929 AND PREVIOUS FIVE YEARS.

	<i>Population.</i>	<i>Births Nett.</i>		<i>Deaths Nett.</i>			
		<i>No.</i>	<i>Rate.</i>	<i>Under 1 year.</i>		<i>All ages.</i>	
				<i>Rate per 1000</i>			
		<i>No.</i>	<i>Rate.</i>	<i>No. births.</i>	<i>No.</i>	<i>Rate</i>	
1924	*BR 130070	1993	15.3	105	53	1609	12.4
	†DR 129800						
1925	*BR 129810	1944	14.3	99	51	1514	11.7
	†DR 129290						
1926	*BR 129020	1964	15.2	104	53	1522	11.8
	†DR 128470						
1927	*BR 129530	1883	14.5	97	52	1677	12.9
	†DR 129080						
1928	*BR 133510	1907	14.3	112	59	1584	11.9
	†DR 133300						
1929	*BR 133540	1763	13.2	81	46	1797	13.5
	†DR 133310						

\*BR indicates population for calculating Birth Rate.

†DR        ,,                ,,                ,,                Death Rate.

TABLE III.

NOTIFICATIONS OF INFECTIOUS DISEASE RECEIVED DURING THE  
YEAR 1929.

	Cambridge.	Caxton and Arrington.	Chesterton.	Linton.	Melbourn.	Newmarket.	Swavesey.	Total.	Admitted to Hospital.	Died.
Small-pox ...	1	—	—	—	—	—	—	1	1	—
Diphtheria ...	240	9	62	11	1	6	14	343	310	20
Scarlet Fever...	98	14	58	18	4	27	4	223	179	1
Enteric Fever	4	—	—	—	—	1	6	11	8	1
Puerperal Fever	1	—	1	—	1	2	—	5	2	4
Puerperal										
Pyrexia	9	1	3	—	—	9	—	22	—	—
Pneumonia ...	38	9	17	—	—	27	5	96	4	80
Erysipelas ...	21	—	17	—	1	13	—	52	1	1
Encephalitis										
Lethargica	3	—	—	—	—	2	—	5	—	5
Cerebro-Spinal										
Meningitis	—	—	1	—	—	—	—	1	1	—
Acute										
Poliomyelitis	1	—	—	1	—	—	—	2	—	—
Ophthalmia										
Neonatorum	—	—	—	—	—	1	—	1	—	—
Tuberculosis:										
Pulmonary ...	—	—	—	—	—	—	—	143	—	89
Non-Pulmonary	—	—	—	—	—	—	—	53	—	16

