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Cambridgeshire County Council

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE

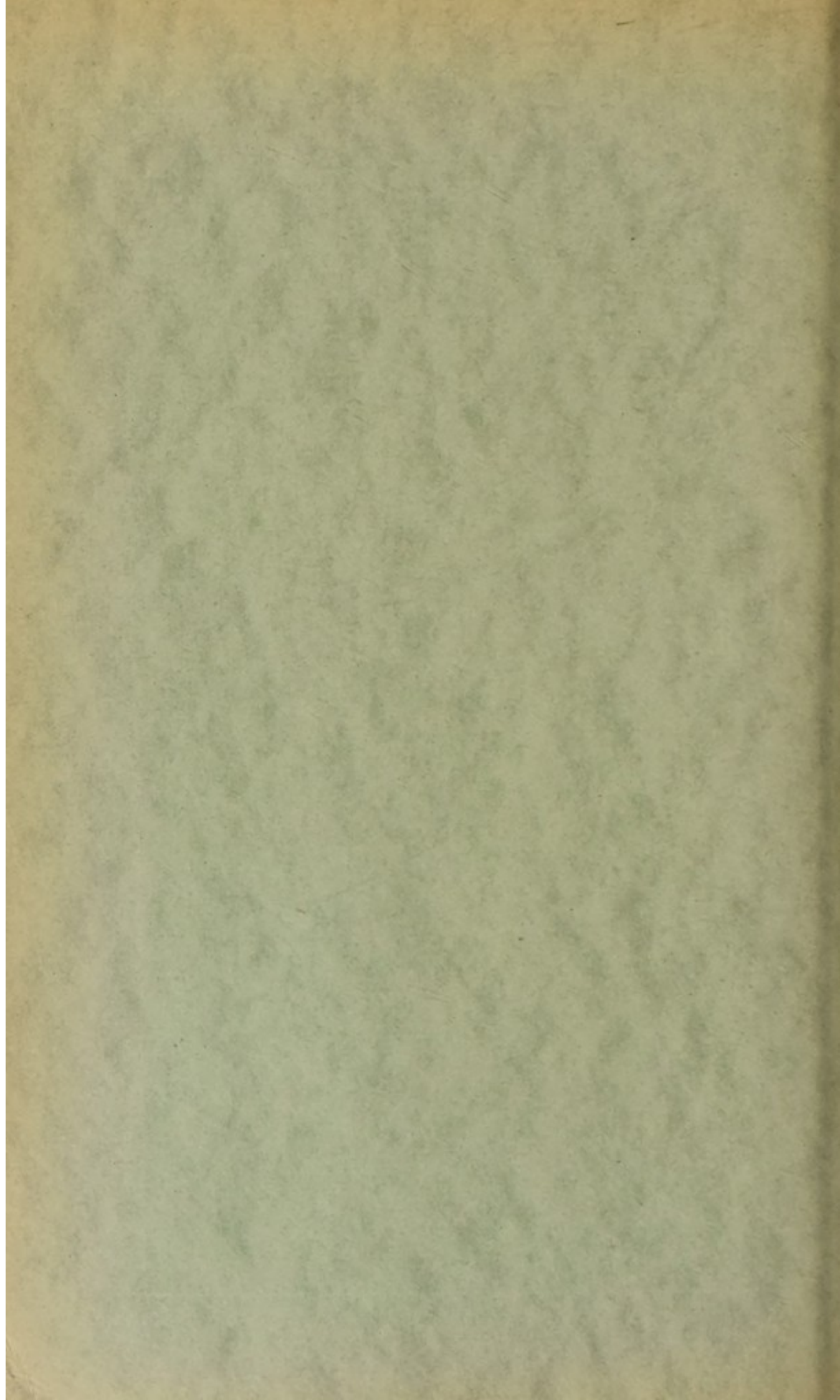
Administrative County of Cambridge,

For the Year 1934.

CAMBRIDGE :

St. Tibb's Press (Cambridge Chronicle Ltd.),

St. Tibb's Row,



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1. Deaths from Different Causes.
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GENERAL STATISTICS.

Area (acres)	315,168
Population—Registrar-General's Estimate (1934)	145,190
Rateable Value	£883,779
Estimated Product of a Penny Rate ...	£3,484

EXTRACTS FROM VITAL STATISTICS
FOR THE YEAR.

		<i>Total.</i>	<i>Male.</i>	<i>Female.</i>
Live Births. Legitimate	1655	855	800	
Illegitimate	78	39	39	
(Birth Rate 11.2 per 1,000)				

Still Births 80. Rate per 1,000 total births 46.1.

		<i>Total.</i>	<i>Male.</i>	<i>Female.</i>
Deaths	1620	830	790	
(Death Rate 11.2 per 1,000)				

Deaths (Live and Still) of women in or in consequence of
child-birth.

			per 1,000 births.
(a) From sepsis	1	0.58	
(b) Other causes	2	1.15	
Total	3	1.73	

Deaths of infants per 1,000 live births	49
(a) Legitimate	48
(b) Illegitimate	90

Deaths from Measles (all ages)	1
,, ,, Whooping Cough (all ages)	5
,, ,, Diarrhoea (under 2 years)	8

STAFF.

Whole time officers of the County Council:—

- FRANK ROBINSON, M.D., D.P.H., *Medical Officer of Health and School Medical Officer, to March 31st, 1935.*
 R. FRENCH, B.A., M.D., D.P.H., *Medical Officer of Health and School Medical Officer, from April 1st, 1935.*
 JESSIE H. GELLATLY, M.D., D.P.H., *Assistant do.*
 W. PATON PHILIP, M.C., M.B., D.P.H., 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 Acts.*

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

- L. B. COLE, M.D., M.R.C.P., *Venereal Diseases Medical Officer.*
 S. RIDDIOUGH, M.B., F.R.C.S., *ditto.*
 L. COBBETT, M.D., *Pathologist.*
 W. H. HARVEY, M.D., *Bacteriologist.*
 J. C. W. GRAHAM, M.D., *Ophthalmologist*
 J. R. C. CANNEY, M.D., *Obstetric Consultant.*
 J. G. RUNCIMAN, M.R.C.V.S., *Veterinary Inspector.*
 S. GREENBURG, F.I.C., *Public Analyst.*
 MISS GRAHAM, *Superintendent of County Nursing Association and Inspector of Midwives.*

PUBLIC ASSISTANCE.

INSTITUTIONS.

Medical Officer.

- | | |
|--------------------------|---------------------------|
| Mill Road, Cambridge ... | A. Hanton, M.B., Ch.B. |
| Union Lane, Cambridge... | do. |
| Linton | H. M. Wilson, M.B., Ch.B. |

MEDICAL DISTRICTS.

(a) Urban Area.

<i>District.</i>		<i>Medical Officer.</i>
Cambridge No. 1 ...	...	G. Roper, M.A., L.M.S.S.A.
„ 2 ...	...	H. F. Apthorpe Webb, M.R.C.S., L.R.C.P.
„ 3 ...	...	A. Harrison White, M.B., B.Sc.
„ 4 ...	...	H. R. Youngman, M.A., M.B., Ch.B.

(b) Rural Area.

<i>District.</i>	<i>Population.</i>	<i>Medical Officer.</i>
Caxton Nos. 1 and 2	4301	P. H. Dudley, M.R.C.S., L.R.C.P.
Gamlingay ...	2190	H. D. Gasteen, L.R.C.P.
Wimpole ...	913	E. W. Gregor, M.R.C.S., L.R.C.P.
Chesterton No. 1 ...	2972	A. S. Cane, M.D.
„ 2 ...	4484	A. W. C. Drake, M.B., Ch.B.
„ 3 ...	3286	H. R. Coombes, L.M.S.S.A.
„ 4 ...	3655	H. Hartley, M.B., Ch.B.
„ 5 ...	3198	G. Roper, M.A., L.M.S.S.A.
„ 6 ...	5096	R. Ellis, M.D.
„ 7 ...	1114	A. F. Gilbert, M.R.C.S., L.R.C.P.
Linton No. 1 ...	5349	H. M. Wilson, M.R.C.S., L.R.C.P.
„ 2 ...	4577	J. York Moore, M.R.C.S., L.R.C.P.

<i>District.</i>		<i>Population.</i>	<i>Medical Officer.</i>
Newmarket No.	1	... 2105	N. C. Simpson, M.D.
„	2	... 2288	J. Davis, M.B.
„	3	... 553	J. D. Batt, M.R.C.S., L.R.C.P.
„	4	... 2141	E. A. R. Ennion, do.
„	5	... 2724	A. F. Gilbert, do.
„	6	... 4737	H. C. Nickson, M.B., Ch.B.
„	7	... 2128	ditto.
„	8	... 1971	J. W. McFeeters, M.B., Ch.B.
Royston No.	2	... 1826	A. D. Skyrme, M.R.C.S., L.R.C.P.
„	3	... 1276	J. H. Moynihan, M.R.C.S., L.R.C.P.
„	4	... 4355	E. W. Gregor, M.R.C.S., L.R.C.P.
„	5	... 635	R. D. Attwood, M.D.
Swavesey	...	... 2464	J. A. Hart, L.M.S.S.A.

Public Vaccinators.

All the above District Medical Officers are Public Vaccinators.

SOCIAL CONDITIONS.

The Borough of Cambridge, in addition to being the seat of the University, is the market town for the County and a railway centre of some importance. The Rural Districts now contain 127 parishes, the main industry of which is agriculture. Fruit growing and market gardening are important industries in a number of rural parishes. Manufactures include a large jam factory, cement making, brick making, brewing, paper making, and the preparation

of chamois leather. There are several printing and publishing works, including the University Press at Cambridge and the Cavendish Press at Foxton.

GENERAL PROVISION OF HEALTH SERVICES FOR THE AREA.

Local Government Act, 1929. The alterations in the constitution and areas of the Sanitary Districts came into effect on April 1st, 1934, with the result that there is still one urban district, the Borough of Cambridge, with an extended boundary, and that the number of rural sanitary districts has been reduced from six, with census populations ranging from 2,398 to 26,879, to three large areas, the Rural Districts of Chesterton, Newmarket and South Cambridgeshire. The larger populations and greater rateable value put these Rural Authorities in a much more favourable position to attain the standard of efficient administration which they would desire in their health services, and it has been made possible for the principle of wholtime service to be put into practice. This, e.g., has been effected by the appointment of the same Medical Officer of Health for all of the Rural District Councils, incidentally securing greater uniformity of practice and simplifying working relations with the County Public Health Department.

Public Assistance. There are no wholtime medical appointments for purposes of out-relief, private medical practitioners holding part-time posts as District Medical Officers. In Cambridge there are 4 such officers for 4 districts, and in the rural area 23 officers for 26 districts, within easy reach of patients in their area of practice. The scheme, which was referred to in the annual

report for 1933, and which came into operation in 1934 with the approval of the Minister of Health, creates, by consent, in the rural area, a panel of local practitioners in contract with the Council, from any one of whom a poor person to whom domiciliary medical relief is granted may obtain medical treatment, free choice of doctor thus being obtained. The application of this principle to the urban district was referred to the Clerk of the Council for report after the end of the year under review.

The number of persons relieved in the Public Assistance Institutions during the year was as follows:—

County Infirmary. Chesterton. Linton.

Able-bodied	—	23	53
Not able-bodied	290	240	139
Insane	14	5	7
*Children (under 3)	85	2	5
Vagrants	—	20,342	—
	—	—	—
Totals	389	20,612	204
	—	—	—

* Also 35 children in the Children's Home, Ross Street, Cambridge.

In-Patients admitted during 1934 (including infants born):—

<i>County Infirmary.</i>	<i>Chesterton.</i>	<i>Linton.</i>	<i>Total.</i>
389	162	45	596

In Hospitals, Homes and Schools beyond the County:
Total— 30.

Sick Beds occupied during the year:—

	<i>County Infirmary.</i>	<i>Chesterton.</i>	<i>Linton.</i>
(a) Average ...	120	48	66
(b) Highest ...	131	55	70
(c) Lowest ...	98	42	62

The total number of in-patients received into the sick wards in 1934 was 563 against 547 in 1933. The comparative occupation of sick beds in three years was as follows:—

			1932	1933	1934.
Average ...	...	...	198	218	234
Highest ...	...	...	215	252	256
Lowest ...	...	...	163	188	202

It will be seen that at all three of the Public Assistance Institutions (the County Infirmary and the Chesterton Institution in Cambridge, and the Linton Institution in the rural area) sick persons are received, but the important principle is followed that those in need of most nursing attention are concentrated in the County Infirmary, where also, all maternity cases are admitted. A general arrangement exists with Addenbrooke's Hospital, under which patients in need of special services are admitted from the Institutions to the Hospital; consultant opinion is also obtainable for patients unable to leave an institution.

As regards the adequacy of accommodation for the sick in the three institutions viewed as a whole it will be observed from the foregoing statistics that there was a larger number of in-patients than in the preceding year and that, as compared with the year 1932, the average occupation of beds throughout the year increased from 198 to 234, the highest occupation from 215 to 256, and the

lowest occupation from 163 to 202. Experience points to the need for added accommodation at the County Infirmary and of adaptation of existing space at the Linton Institution for beds for infirm or sick persons calling for less nursing care. The situation was commented on in the report received from the Ministry of Health on the survey of the health services of the County which had been made in the previous year.

The Council have now resolved upon the erection of a new block to provide accommodation for 32 hospital beds for male patients at the County Infirmary, and a scheme for the provision of additional beds at the Linton Institution by the adaptation of existing disused space was submitted to the House Committee by the officers concerned.

Special services at the County Infirmary include maternity beds, a nursery for children under three years of age, and a small temporary cancer pavilion for women. Some cases of tuberculosis are admitted to a balcony attached to the women's acute block, male cases being accommodated in a few open air shelters. The maternity accommodation is modern in type and receives for confinement normal cases from unsuitable homes.

Under the management of the respective House Committees many improvements have been effected in the Institutions during the past few years, and the following matters carried out or originated in the past year may be noted. At the County Infirmary the new Nurses' Home, which will accommodate 24 nurses, will be ready for use in 1935. Accommodation for old women has been re-arranged and additional sanitary accommodation approved, the sanitary accommodation for the Nursery has been

improved, and improved provision made for sterilisation of instruments and water for hospital purposes. At the Linton Institution, the sewage disposal system, which had proved inadequate, was extended so as to secure distribution of sewage over a much larger irrigation area, while alterations to the existing sanitary accommodation (some of which is of the earth-closet type), provision of sluice-rooms and the installation of electric light were approved.

The accommodation for casuals for the whole County area is concentrated at Cambridge on the Chesterton Institution site. There was an increase in the number of admissions from 17,938 in 1933 to 20,342 in 1934, but this figure is still much below 33,714, the admission record for 1932.

All three Institutions are approved under Section 37 of the Mental Deficiency Act, 1913, for the reception of a limited number of adult defectives, including high grade young women who assist in domestic work, especially in the laundries. The transfer of young trainable defectives to appropriate Institutions certified under the Mental Deficiency Acts was resolved upon by the Council, to come into effect when the extension at the Colchester Institution should be opened in 1935.

General Voluntary Hospital. Addenbrooke's Hospital, which serves the whole County area, now contains 312 beds, including 30 private beds, 8 beds for complicated maternity cases and 13 for ophthalmic patients. There are also beds for orthopaedic cases and for venereal diseases. During the last financial year 5128 in-patients were admitted (4891 in 1933), 443 were admitted to the private wards, and there were 13,909 new out-patients (12,339 in 1933) who paid 68,169 attendances (60,400 in 1933).

Mental Hospital. During the year there were in the County Mental Hospital, Fulbourn, a total of 464 patients from the area of the Administrative County. These comprised 70 males and 149 females from Cambridge, and 91 males and 154 females from the rural area. These figures do not include patients from the Isle of Ely, who are also accommodated in this Hospital.

Isolation Hospitals. See separate section.

Maternity and Nursing Homes. In Cambridge the normal inspection of Nursing Homes is delegated to the Town Council, the County Council retaining registration and matters of discipline; in the rural area they undertake complete executive control. At the end of the year there were on the Register 7 Nursing Homes in Cambridge and 2 in the rural area, one home in Cambridge having been closed during the year. Maternity patients are admitted to all of the registered Homes, most of which also receive general medical or surgical patients.

No infringement of the Act or Byelaws was recorded. The position of premises in the parish of Burwell (Newmarket Rural District) to which old people are received for payment was considered by the Committee, who took the view that registration was not required.

Children and Young Persons Act, 1932. For the County Maternity and Child Welfare area the supervision of young children received for payment is administered through the Public Health Department. An account of this branch of work, which involves much detailed attention, will be found in the section relating to Maternity and Child Welfare.

Maternal Mortality. Maternal deaths and cases of puerperal pyrexia or puerperal sepsis are enquired into by the County Medical Officer of Health, who is authorised to obtain the assistance of an obstetric consultant if occasion arises. Arising out of Circular 1433 issued from the Ministry of Health during the year on the subject of maternal mortality the Medical Officer of Health submitted a memorandum from which the following points may be noted.

Under ante-natal arrangements seventy per cent of expectant mothers in the County Council's maternity and child welfare area are under systematic visitation by the Health Visitors, and ante-natal advice is given at certain of the Voluntary Centres subsidised by the County Council. Expectant mothers suspected to be abnormal are referred to the Obstetric Clinic at Addenbrooke's Hospital, where an adhoc clinic would be a decided advantage. This has now been arranged.

A scheme recently approved by the Council was agreed upon with the local Branch of the British Medical Association for ante-natal and post-natal examinations by private practitioners for uninsured women who have engaged a midwife. If the women avail themselves of the facilities thus afforded, this should prove a valuable step towards reducing the risks incident to child-birth.

A refresher course of instruction to midwives was again given through the local Branch of the College of Nursing, with the aid of a subsidy from the County Council. The course of 11 lectures was well attended.

The Inspector of Midwives reports that there was a great increase during the year in the number of sterilised maternity outfits supplied to expectant mothers through the Nursing Associations.

MIDWIVES ACTS.

The County Council's responsibility as Local Supervising Authority under these Acts is limited to the rural area, from which in January 1935, notifications of intention to practise during the year were received from 51 midwives, compared with 49 at the beginning of 1934. All of these are trained Nurse-Midwives, employed by the District Nursing Associations. In all, 62 notifications were received during the year 1934, a number of them, as usual, coming from women undertaking holiday duty.

During the year, 140 routine visits of inspection were paid to midwives by the Superintendent of the County Nursing Association in her official capacity of Inspector of Midwives; 69 special enquiries were also made by her or by the County Medical Officer of Health.

The County Council ensure the training of midwives for their area by granting nursing scholarships of the value of £75 each, but as no grant was claimed in 1934, the total number of such scholarships so far given by the Council remains at 52. As usual, grants were distributed through the medium of the County Nursing Association to District Nursing Associations who provide a midwifery service in the villages through their Nurse-Midwives. To ensure the continuance of a useful refresher course for midwives arranged at Cambridge in two previous years by the Cambridgeshire Branch of the Midwives Institute the County Council renewed their annual grant in aid of £15.

Midwives are recorded as having attended 702 confinements during the year, 430 independently as midwives and 272 as maternity nurses acting under medical direction. Apart from intention to practise and change of address, 253 notifications were received from them (239 in 1933), comprising medical help for mother 171, for infant 28, liability to be a source of infection 30, death of infant 6, still-birth 8, laying-out the dead 8, and artificial feeding 1. All cases of rise of temperature, infection, inflammation of the eyes, death of mother or infant, still-birth and laying-out of the dead were enquired into, as is the practice. The one maternal death occurred in the practice of a doctor, the midwife's services being limited to those rendered by a maternity nurse. Similarly, the midwives attended as maternity nurse under medical direction in 5 of the 6 confinements at which the infant died; in the remaining case, marked feebleness of the infant had existed from birth, for which the midwife had summoned medical help in compliance with the Rules.

Of the 7 cases of inflammation of the eyes of the infant enquired into, 6 were slight while one was admitted to Addenbrooke's Hospital with a moderately severe attack; all recovered without injury to sight. Of 16 occasions for suspension of a midwife from duty, 6 were for puerperal infection in the patient and 5 for exposure of the midwife to other acute infections, the remaining 5 being for other non-septic causes. A circular has recently been issued from the Public Health Department with the object of acquainting midwives with recent advances in measures aiming at the prevention of introduction of septic infection during labour.

In 1919, when the County Council's area for purposes of the Midwives Acts included the Borough of Cambridge,

the proportion of total births to which medical aid for mother or infant was summoned by midwives was 5.2 per cent., the proportion increasing to 19.4 per cent. in 1933 and again in 1935 to 20.8 per cent. The increase in the number of cases in which medical help was obtained for mothers in 1934 is accounted for mainly by an instruction which was given to midwives from the Public Health Department to obtain medical examination through this channel in all cases of abnormal maternal history, until the scheme of ante-natal and post-natal routine examinations by medical practitioners approved by the Council should come into operation.

For both mothers and infants, claims for payment of the fee of the doctor by the County Council where called in by the midwife under the provisions of the Midwives Acts were received in 178 out of 199 cases in which medical help was summoned, the proportion of such claims to cases being 89 per cent, almost identical with the proportion (90 per cent.), in 1933. It is the practice to endeavour to recover from the patient a proportion of the fee, estimated on an approved income scale or specially assessed by the Committee in exceptional cases.

MATERNITY AND CHILD WELFARE.

With the exception of the Borough of Cambridge, for which the Town Council are the responsible Authority, the maternity and child welfare scheme for the Administrative County is administered by the County Council, whose area for this purpose is entirely rural.

The number of notifications of live or still births received from the rural area under the Notification of Births Acts during the year was 863, being 58 less than

that recorded for 1933. (Births registered as having occurred during 1934 numbered 955, against 1,010 in 1933). After deducting 27 duplicates and 26 stillbirths, there remain 810 notified live births, or 84.8 per cent. of the total registered, compared with 86.2 in 1933.

Midwives notified 569 births, or 65.9 per cent. of the whole, a decrease from 67.6 per cent. in 1933, a reversal of the previous experience. These figures, however, do not represent even approximately the true proportion of confinements conducted by midwives independently, as many births are notified by the midwife instead of the doctor when both were present, and the number of birth notifications by midwives is therefore much in excess of the number of confinements for which they were solely responsible. In addition to notifications from these statutory sources, there were also reported, for health visitation purposes, 45 infants aged under 12 months, who came to the notice of Health Visitors and Masters of Public Assistance Institutions in the course of their duties. In addition, 156 young children above the age of twelve months were similarly reported. The interchange of complete monthly lists of registered and notified births with the Registrars continued through the year.

In the rural area, where there can be only comparatively few welfare centres within easy reach of many cottage homes, home visits by the Health Visitors assume special importance in a maternity and child welfare scheme. The total of home visits paid by Health Visitors to expectant and nursing mothers as well as to infants and young children, under the scheme of visitation carried out for the County Council by the County and District Nursing Associations was 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	5	1615	3171	4791
District Nurses	... 3351	6517	11485	21353
	—	—	—	—
Total for 1934	... 3356	8132	14656	26144
Total for 1933	... 3041	8231	15116	26388

The number of first visits to infants was recorded to be 876, or 91.7 per cent of those born alive, differing but little from the high proportion of 93 per cent visited of those born in the previous year. First visits to expectant mothers numbered 679, the proportion of expectant mothers thus coming under ante-natal supervision in their homes being 68.2 per cent. against 70.2 per cent. in 1933. As this proportion is based on total births, including those in families of higher means, the proportion of working class mothers who are most in need of advice and assistance, thus coming under supervision, must be appreciably higher than 68.2 per cent. This is a matter of importance as the reports of the Health Visitors on conditions observed at their visits are sent in systematically to headquarters and form the starting point from which the facilities for aid under the Council's scheme are rendered available where judged necessary.

The arrangements were continued under which for purposes of the Children and Young Persons Act, 1932, and the Children Act, 1908, the Health Visitors, acting as Infant Life Protection Visitors, supervise for the Council children under nine years of age received by fostermothers for payment. Many of the 160 children so supervised are boarded out by such voluntary organisations as Dr. Barnado's Homes, the Waifs and Strays Society and the

Cambridge Society for the Care of Girls, and there is much useful interchange of information with these bodies on arranged lines. The Superintendent of the County Nursing Association has continued to investigate all intending fostermothers and their homes for the guidance of the County Medical Officer. Children boarded out by the Cambridgeshire Public Assistance Committee are not included in this scheme, and the arrangements for their supervision are not controlled by the Public Health Department.

Statistical details regarding the administration of the Children and Young Persons Act during the year are as follows:—

Infant Protection Visitors at end of year	...	...	...	36
Homes inspected before reception	...	...	...	37
Approved	...	...	...	32
Not approved	...	...	...	5
New Cases...	...	...	...	49
Total number supervised	...	...	...	160
Children removed from Register	...	...	...	50
Left Administrative area	...	...	...	7
Returned to relatives in the area	...	...	...	19
Returned to a Home	...	...	...	10
Attained the age of 9 years	...	...	...	11
Adopted	...	...	...	2
Transferred to other fostermothers	...	...	...	1
Died	...	...	...	—
Remaining on Register at end of year	...	...	...	102
Orders of Court made under Sect. 67	...	...	...	Nil.

Enquiries were also made in two villages regarding children, not included in the above table, whom it was

proposed to receive from towns for short summer holidays, and advice was given to the organising bodies regarding the suitability of the arrangements proposed.

The scheme of supervision of children received for payment appears to be working on sound lines, but the public are, even yet not fully aware of the statutory requirement to notify intention to receive a young child for payment. Twelve instances of this failure came to light during the year and one of failure by the fostermother to notify change of address. As all these omissions appeared genuinely due to ignorance of the law, resort to the Courts was not advocated.

The total number of children specially supervised by the Infant Protection Visitors increased from 138 in 1933 to 160 in 1934 and, owing to the special care required regarding children on whose account money passes, much more detailed work by the professional and clerical staff is involved than would appear on the surface. There is but little to suggest the possibility of ill intent on the part of foster-parents, whose offences, such as they are, may be attributed to ignorance. The case of one foster-mother who received children from a voluntary organisation without notifying the fact has been the subject of special report to the Committee, whose sanction was made subject to specified conditions. Vigilance may specially be needed in the case of illegitimate children whose mothers can only afford to pay sums for maintenance which are below the average.

Through the agency of the County Nursing Association 32 mothers, against 15 in 1933, were aided by the Council to obtain the services of a Home Help to undertake

domestic responsibilities in the household during the mother's confinement period. This number, though not large, represents a further expansion of this useful service, no doubt owing to the arrangement under which local women are now approved by the County Medical Officer of Health and the Superintendent of Nurses to undertake duties in individual cases, it having proved difficult to maintain a whole-time service of Home Helps in an entirely rural area.

A substantial increase was recorded in 1933, in the number of difficult confinement cases (including ante-natal and post-natal conditions) maintained by the Council in maternity beds at Addenbrooke's Hospital, and in 1934 such admissions numbered 49 against 52, the proportion per 1,000 confinements being 49.3, practically identical with 49.4 in 1933. These figures include cases of puerperal pyrexia or sepsis. The anticipated normal confinement cases admitted to maternity beds in the County Infirmary numbered 56, of which 34 were from Cambridge and 22 from the rural area. Compared with a total for 1933 of 26 total admissions the growing appreciation both in the Borough and the villages of the excellent accommodation and attention available in these up-to-date wards is obvious, and affords a hopeful outlook towards the solution of the difficult problem of ensuring the safety of women who would otherwise be confined under unfavourable conditions, due either to their unsatisfactory surroundings or their remoteness from professional help.

The Council are entitled to the occupation of two places at the Ely Diocesan Maternity Home, Cambridge, and during the year maintained two newly admitted unmarried women with their infants, in addition to one already in the Home at the beginning of the year.

The County Council's consultant obstetric surgeon undertook 11 consultations with private practitioners in the homes of the patients, against 6 in 1933; 2 of these were under the Puerperal Pyrexia Regulations. This service will no doubt be expanded when the scheme of routine ante-natal and post-natal examinations by private practitioners recently approved develops, as conditions will be found on which a consultant opinion is desired.

It may here be appropriate to insert a note of the scheme of routine examinations by medical practitioners to which reference has been made, and which should come into operation in 1935. It is designed to provide ante-natal and post-natal examinations by a doctor for uninsured women who engage a midwife to conduct their confinement, and who desire examination, but because of distance or their physical condition cannot attend an ante-natal clinic. Under it, an uninsured woman will have free choice of doctor from a list of practitioners who have notified their willingness to undertake examinations under the scheme, the doctor to be selected being the one who has agreed to be summoned in emergency by the midwife under the provisions of the Midwives Acts during pregnancy, labour or the puerperal period. The examinations authorised will comprise one general medical examination early in the pregnancy, a complete medical and pelvic examination at the end of the seventh month and a post-natal examination before the midwife ceases attendance. The doctor's report will be communicated both to the midwife and to the County Medical Officer of Health and will indicate whether any condition exists calling for assistance by the Maternity and Child Welfare Committee, such, for example, as obstetric consultation or hospital confinement.

No cases of ophthalmia neonatorum were maintained by the Committee in Addenbrooke's Hospital and no notifications of this condition were in fact received. A note has previously been made on the very few cases of inflammation of the eyes occurring in the practices of midwives and their slight degree. This is very encouraging and is a valuable contribution by the midwives towards the prevention of blindness.

Under the official maternity and child welfare scheme, 31 maternity cases were nursed in their home during the year and 31 mothers were referred to the Cambridge and District Surgical Aid Association for assistance for dental treatment, spectacles and surgical appliances. Assistance is also given in special cases for the provision of artificial dentures. Letters of introduction to Addenbrooke's Hospital were also given, 5 of which were for ante-natal advice and 65 for children.

In view of the widespread interest aroused by the recently developed arrangements for the supply of milk on a large scale to school children it is worth while emphasising the fact that for 17 years milk has been supplied under the Committee's scheme to expectant and nursing mothers, infants and young children, in cases where both medical and financial grounds for such assistance exist. In the great majority of cases the improvement in health effected leaves no ground for doubt as to the value of this service. As the Committee's scheme operates in a milk producing area, it is customary to supply fresh milk unless some special reason exists for the use of dried milk. Fresh families to the number of 55 were added to the list of 23 in receipt of milk at the beginning of the year, making a total of 78 supplied, against 62 in 1933. Such

cases as cannot properly be assisted through Maternity and Child Welfare powers are referred to the Public Assistance Committee.

The annual grant from the Council in support of the scheme of orthopædic treatment carried out by the Cambridgeshire Branch of the British Red Cross Society was continued throughout the year. This work is mainly undertaken in the orthopædic department of Addenbrooke's Hospital, Cambridge, but three outlying centres are also within the reach of rural patients from Cambridgeshire. From the rural area during the year 218 clinic visits were paid by children under five years, 244 by children of 5 and upwards, and 143 by adults, while 77 home visits were paid to children under 5 years, 40 to children of 5 and upwards and 16 to adults. Of 31 letters of introduction to the orthopædic clinic at Addenbrooke's Hospital, 17 were for deformities of the long bones (mainly bow legs), probably due to rickets, 12 for deformities of the foot such as club foot and flat foot, and 2 for other conditions.

Infant Welfare Centres. At the end of the calendar year there were 10 maternity and child welfare centres situated in certain of the larger villages. A new centre was started during the year in Soham, the largest village in the County, while on the other hand, owing to the recent extension of the Borough boundary, the Trumpington centre is now situated in Cambridge, though children from the village of Grantchester continue to attend it. The centres are under voluntary management, subsidised by the County Council by means of a block grant distributed by the County Nursing Association. The subsidy paid in 1934 to the 11 centres (including Trumpington) averaged

£15 5s. 2d. per centre, varying from £25 3s. 7d. to the Histon centre, where a dental service is included, to a minimum of £5 18s. 4d. to the Trumpington centre, because of the attendances from Grantchester.

The following information as to attendances was furnished from the Centres at the end of the calendar year, for inclusion in the statistical returns required by the Ministry of Health from the County Council.

	<i>Under one year.</i>	<i>One to five.</i>
No. of children attending at end of year	131	500
Attended for first time...	167	126
Total attendances	984	3082

Of the total number of children whose births were notified (not registered) in the whole rural area 18.6 per cent. attended clinics for the first time, against 17 per cent in 1933.

The following statement is a summary of information contained in returns from the centre at the end of the financial year, ending 31/3/35.

	<i>Children on Register.</i>	<i>Number of Sessions.</i>	<i>Doctor Attended.</i>	<i>Educational Sessions.</i>
Bottisham	40	9	8	4
Burwell	53	11	11	5
Cottenham	59	13	9	3
Fordham	70	12	11	3
Great Shelford	108	24	12	8
Histon	92	23	11	4
Linton	41	9	9	5
Sawston	103	26	13	11
Soham	40	10	4	2
Trumpington	28	12	12	—
Waterbeach	86	9	9	5

The 750 children now on the register represent an increase of 122 on the corresponding total for the previous year and of 115 if the Trumpington centre be disregarded. The reason for the number of sessions held at the Great Shelford, Histon and Sawston centres is that schemes of dental treatment for mothers and children are established and special dental sessions are held. This service was discontinued at Trumpington, being available (though not for Grantchester) at the Cambridge Dental Clinic. The County Maternity and Child Welfare Committee assisted during the calendar year in the purchase of artificial dentures for two mothers in necessitous circumstances attending centres in the rural area.

Ante-natal clinics are much less easy to arrange in a rural than in an urban area, and it is encouraging that greater facilities are likely to be available in the future at Addenbrooke's Hospital for this purpose. At Sawston a special weekly clinic is reported to be held by the Health Visitor at her home, and it is hoped to develop arrangements at Bottisham in 1935. At four of the other maternity and child welfare centres ante-natal advice is stated to be given on request, but no details are available.

It may be argued that the educational work at these centres is equal or more than equal in value to the actual medical care, and the considerable variation in the number of such sessions observable in the table therefore attracts attention. Moreover, in small village centres the limited accommodation often makes it difficult to secure separate care of the children while addresses are given to the mothers, with the result that such instruction is given under distracting conditions which are difficult for the speaker to contend with.

It may be added that during the year, at the instance of the Minister of Health, arising out of the general survey of the Health Services of the County, an arrangement was approved under which the County Superintendent of Nurses will pay visits of supervision under the direction of the County Medical Officer of Health.

Cambridge Borough. Sixteen midwives notified their intention to practise during the course of the year. Under the Notification of Births Act, 1907, there were notified 905 births, or 98.7 per cent. of the total of 917 births actually registered in the area. Of the total notifications, 75 per cent. were received from midwives. Medical help was required on behalf of the mother in 18 per cent. of confinements attended by midwives.

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

First visits to Infants	...	...	...	694
Subsequent visits to Infants	...	...	...	2577
Visits to Children 1—5 years	...	...	...	4180
First visits to Expectant Mothers	...	...	...	136
Subsequent visits to Expectant Mothers	...	...	...	68
Visits under Children Act	...	...	...	116
Other cases	...	...	...	153
				<hr/>
Total	...	...	...	7924
				<hr/>

The addition of the Centre at Trumpington, brought about by the extension of the Borough boundary, brings the number of Infant Welfare Centres up to five. During the year 5,093 attendances were paid by 515 infants, and 2,057 attendances by 490 children aged one to five years.

First attendances numbered 493. Dried milk, virol, cod liver oil and malt were supplied at the centres at a reduced rate or free, enquiry being made into 157 cases with this object. The ante-natal clinic, at which fortnightly sessions are held, was attended by 142 women, against 84 in 1933, including 16 post-natal cases. The increased use of the clinic noted in the previous year is thus maintained. Dr. Laird gives details of the scheme of ante-natal and post-natal examinations by medical practitioners which came into operation during the year, of which 49 women availed themselves.

During the year 41 cases were maintained by the Town Council in beds in Addenbrooke's Hospital under Maternity and Child Welfare arrangements and in the maternity ward at the County Infirmary under an agreement entered into with the County Public Assistance Committee. Twenty-two Home Helps were employed during the year, an improvement on eight in the previous year.

The Town Council's scheme for dental treatment of mothers and children below school age, includes expectant and nursing mothers in attendance at the Infant Welfare Centres. During the year 119 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 822, including 387 by children.

ISOLATION HOSPITALS.

The customary annual reports were furnished by the County Medical Officer of Health after reinspection of the isolation hospitals, and grants for the year were approved to

an approximate total of £699. At the Exning Isolation Hospital (Newmarket Rural) improvements effected during the year included general attention to the grounds and redecoration of the cubicle block; the marked improvement previously noted in the administrative standard had been maintained. It was suggested for consideration by the Joint Hospital Committee that a cubicle might be reserved as far as necessary for operative work, and that a suitable operation table and steam steriliser for instruments be provided.

The existing hospitals are (1) the Cambridge Isolation Hospital, which has in the past also received for payment all patients from the South Cambridgeshire Rural District and some from the Chesterton Rural District, (2) the Exning Isolation Hospital, which serves the Newmarket Rural District, (3) the Oakington Isolation Hospital, which accommodates scarlet fever patients from Chesterton Rural District, and (4) the Cambridge Smallpox Hospital, which admits, for payment, patients from the whole rural area, as well as from Cambridge. The site of this, the only hospital for smallpox in the County, will in a short time be required for other municipal purposes.

As stated in previous annual reports, a survey report on the isolation hospital accommodation in the Administrative County was presented by the County Medical Officer of Health at an earlier date in accordance with Section 63 of the Local Government Act, 1929, and further memoranda have since been considered by the Public Health Committee. A special Sub-Committee reported to the Public Health and Housing Committee in June, 1934, on the beds available in existing hospitals and on admissions to them, and it was resolved to recommend that the County

Council should make provision for smallpox accommodation for the whole Administrative County. The Caxton Public Assistance Institution was considered with this in view, but on the advice of the Ministry of Health the possibility was not pursued further.

In November, 1934, a conference was held between representatives of the County Council and all the Local Sanitary Authorities on the general problem, when the recommendation that the smallpox accommodation for the whole Administrative County should be provided by the County Council was re-affirmed. Further resolutions were to the effect (1) that the Chesterton and South Cambridgeshire Rural Districts should consider and report upon the question of isolation hospital accommodation and (2) that provision should be made for vesting the Exning Isolation Hospital in the Newmarket Rural District Council. Since that date the South Cambridgeshire Rural District Council have resolved in favour of continuing to send all their patients to the Cambridge Isolation Hospital, while the Chesterton Rural District Council have pursued the possibility of extending their small hospital at Oakington so as to meet all their needs for scarlet fever and diphtheria.

Apart from smallpox, therefore, the position at the end of the financial year was that Cambridge Borough and the Newmarket Rural District were adequately served by their respective hospitals, that the needs of the South Cambridgeshire Rural District were adequately met by the admission of their patients for payment to the Cambridge Isolation Hospital and that Chesterton Rural District Council were considering the preparation of a scheme for extending their Oakington Isolation Hospital so as to admit all their scarlet fever and diphtheria patients instead of sending diphtheria and surplus scarlet fever cases to Cambridge as at present.

The decision regarding the Oakington Hospital will influence the solution of the smallpox hospital problem. In the event of the extension scheme not being proceeded with it would be practicable, by joint arrangement, for a smallpox pavilion to be erected on this site for occupation if an outbreak occurred, but, in the other event, accommodation for smallpox would need to be arranged by the County Council elsewhere.

TUBERCULOSIS.

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

<i>Age Periods.</i>	<i>Pulmonary.</i>		<i>Non-Pulmonary.</i>	
	<i>M.</i>	<i>F.</i>	<i>M.</i>	<i>F.</i>
0	—	—	—	—
1	—	1	1	1
5	—	1	—	3
10	2	—	5	6
15	6	8	2	1
20	5	10	2	4
25	9	8	1	4
35	4	8	—	—
45	11	6	1	2
55	5	2	—	1
65 and upwards	1	—	—	1
	43	44	12	23

Of the foregoing, in 13 cases information was derived through channels other than formal notification, the first information being gained in 3 cases from death returns, the remaining 10 being transfers from other areas.

The requirement to notify cases of tuberculosis of all organs has now for 24 years been a statutory duty of medical practitioners, and though from the nature of the infection the same accuracy cannot be expected as in the acute infections, it should now be possible to place some reliance on the notification statistics as a guide to relative prevalence. Moreover, the early error was one of omission, and any decline now indicated is, therefore, owing to improved notification, likely to be an understatement rather than the reverse.

The number of cases remaining on 31st December, 1934, on the Registers of Notifications kept by the District Medical Officers of Health, after deducting deaths, recoveries, removals, etc., were as follows:—

				<i>Male.</i>	<i>Female.</i>	<i>Total.</i>
Pulmonary	...	...	...	399	217	616
Non-Pulmonary	...	...	...	140	164	304
				<hr/>		
				539	381	920
				<hr/>		

The substantial decrease on the previous year's Register figures, following revision of the registers, includes both pulmonary and non-pulmonary cases. The deaths at the respective age-periods during the year will be found in Table I., appended to this report.

No legal action was taken during the year under the Public Health (Prevention of Tuberculosis) Regulations, 1925, for the prevention of handling of milk by infectious persons, nor under Section 62 of the Public Health Act, 1925, which empowers the removal to institutional care of infectious patients where the need for compulsion arises.

for the protection of the public. While this is so, the fact that such compulsory powers can be obtained on application to a Court has its value as an argument when endeavouring to induce infectious but reluctant patients to place themselves under institutional care.

There was no change during the year in the scheme under which the County Council provides for tubercular persons (a) supervision and advice in their homes, (b) dispensary supervision and (c) in-patient care in sanatoria and other appropriate institutions.

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 one Tuberculosis Nurse; the District Nurses in the rural area also undertake home visitation duties. 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	...	...	340	275	615
Old ,,	...	...	312	414	726
			<hr/>	<hr/>	<hr/>
			652	689	1341
			<hr/>	<hr/>	<hr/>

2. Visits of Patients to Dispensary:—

			<i>Cambridge.</i>	<i>Rural.</i>	<i>Total.</i>
Insured Persons	...	...	504	300	804
School Children	...	...	146	196	342
Other Uninsured Persons			346	175	521
			<hr/>	<hr/>	<hr/>
			996	671	1667
			<hr/>	<hr/>	<hr/>

9. Visits to Homes:—

(a) *By Tuberculosis Officer:—*

			<i>Cambridge.</i>	<i>Rural.</i>	<i>Total.</i>
Insured	...	...	66	182	248
School Children	...	...	111	233	344
Other Uninsured	...	...	45	195	240
Total 1934			222	610	832
,, 1933			315	667	982

(b) *By Dispensary Nurse:—*

			<i>Cambridge.</i>	<i>Rural.</i>	<i>Total.</i>
Insured	...	...	229	353	582
Uninsured	...	...	222	476	698
Total 1934			451	829	1280
,, 1933			434	650	1084

(c) *By General Nursing Staff:—*

			<i>Cambridge.</i>	<i>Rural.</i>	<i>Total.</i>
Insured	—	442	442
Uninsured	—	437	437
Total 1934			—	879	879
,, 1933			—	924	924

Grand total home visits:—

1934	...	...	673	2318	2991
1933	...	...	749	2241	2990

The Tuberculosis Officer undertook 521 personal consultations with doctors during the year, and 1554 through other channels. The 595 new cases examined included 120 contacts of whom 6 proved to be infected. Of the 475 examined as ailing, 100 proved to be tubercular and in 375 the existence of infection was not confirmed. During the same period 820 names were written off the Dispensary register, 331 as apparently having recovered and 489 as non-tubercular. In addition, 58 were written off as dead and 413 ceased attendance on transfer to other areas or for other reasons. At the end of the year there remained 754 names on the register, compared with 1430 twelve months previously, and of these, 167 showed positive bacteriological evidence of being in an actively infectious condition.

Specimens of sputum examined bacteriologically at or in connection with the Dispensary numbered 343, against 352 in the previous year, the tubercle bacillus being found in 67 specimens. X-ray examinations undertaken by the Tuberculosis Officer at the Dispensary numbered 1,766 against 1,572 in the previous year, films being taken in 1,630. The unusual fact that the Tuberculosis Officer is himself the radiologist continues to have great advantages in facilitating diagnosis and in securing the ready co-operation of the private practitioners throughout the County, while the financial advantage to the Council is obvious.

Under the scheme of dental treatment of tubercular persons at the Dispensary 44 patients (including 35 new ones) received treatment from the County Council's Dentist, against 28 in 1933. It is available for uninsured persons and for certain of the insured, and includes the

provision of artificial dentures on an approved scale, part payment being recovered from the patient as far as practicable. Approval was given also for assistance in the purchase of surgical appliances for 4 surgical cases of tuberculosis at an approximate cost of £7.

Arising out of the Ministry of Health's survey of the health services of the Administrative County, the Tuberculosis Officer has, since the close of the year, presented a valuable detailed report to the Council on the work of the Tuberculosis Dispensary. Among the subjects dealt with is that of artificial pneumo-thorax, a valuable method of treatment of pulmonary cases which has been greatly developed of recent years. Dr. Philip explains that a system of co-operation has been arranged between the artificial Pneumo-thorax clinic established at Addenbrooke's Hospital and the County Tuberculosis Dispensary, under which the operative work is undertaken at the Hospital by a Senior Physician, the necessary X-ray control being carried out by the Tuberculosis Officer at the Dispensary. Dr. Philip anticipates a considerable extension at the Dispensary of this branch of treatment, which may occupy a period of three years and tend to shorten the period of stay in Institutions, with a proportionate reduction in institutional costs.

Care and After-Care. The after-care work which is undertaken by the Dispensary staff, has for 18 years been supplemented by the activities of the Cambridgeshire Tuberculosis After-Care Association, which continues to be of practical value. Close association with the official scheme is secured by the fact that the Tuberculosis Officer acts as Honorary Medical Adviser, and his clerk, Miss Amey, as Honorary Secretary. The Association, which

aids adult cases, received a grant during the year from the County Council amounting to £88, which was expended mainly with the object of securing an adequate food supply for the recipients of assistance. Other funds were also provided by certain, though not all, of the Friendly Societies, and from private sources.

The following information is gained from the annual report of the Honorary Medical Adviser. During the year 28 cases (19 women, 9 men), 19 of whom were insured persons, were assisted, and of these, 18 were working at their old occupations, 5 women were doing part-time domestic work in their own homes, 4 were still under treatment and one had died.

The insurance cases were distributed among 10 Approved Societies. Grants varying from 2/6 to 10/- per week were made for periods ranging from one to eighteen months, the main object being to provide the necessary extra nourishment. In the cases of a few women the object of the grant was to provide domestic help in the home during the period of illness.

The Association continued particularly to assist that type of case where return to more or less full work could reasonably be expected. More than half the number dealt with during 1934 had previously been maintained by the County Council in sanatoria.

In addition to their grant to the Association, the County Council, through their Public Health Committee, supplied milk for 20 tubercular and pre-tubercular children, while the Education Committee continued the provision of malt and cod liver oil to school children of the pre-tuber-

cular type. Towards the end of the year the facilities for the supply of milk to school children on a large scale at a cheap rate came into operation under the scheme organised by the Milk Marketing Board, and should prove a valuable weapon for increasing resistance to tubercular infection, provided adequate supervision is exercised to ensure that the milk supplied is tubercle-free. If this precaution is not carefully and systematically observed, the increased consumption of milk is obviously likely to result in increased infection of the bovine type among children of school age.

Sanatorium Accommodation. The County Council do not administer a sanatorium of their own, but find accommodation for their patients in existing institutions. Almost all of the men and the majority of the women are admitted to the Papworth Village Settlement, where 30 beds are reserved for men in consideration of a capital sum contributed by the County Council towards the foundation of the Institution. Pulmonary cases in all stages are maintained at Papworth, with surgical cases also. Special individual pulmonary cases are also sent to such institutions as the Brompton Hospital and the sanatoria at Frimley and Ventnor, while for many years 6 beds have been reserved for women suffering from pulmonary tuberculosis (not advanced) at Bramblewood Sanatorium, Holt, Norfolk. The continued decline in cases occurring in children has enabled the Council gradually to reduce the number of beds reserved for early pulmonary cases at the Children's Sanatorium, Holt, and during 1934 it became possible to discontinue the definite reservation of such beds for children at this institution.

For surgical cases occurring in children unreserved accommodation is obtained at Addenbrooke's Hospital,

Cambridge, mainly for short periods of operative treatment, and, for longer conservative treatment for the prevention of crippling conditions, at the Shropshire Orthopædic Hospital, Oswestry.

During the year reciprocal arrangements for sanatorium treatment were entered into with the Shropshire County Council.

The following figures show the immediate results maintained by the County Council in sanatoria and similar institutions during 1934, excluding 6 patients (2 male, 3 female, 1 child), treated in Public Assistance Institutions, of whom 5 (2 male, 2 female, 1 child) were admitted during the year.

		<i>In Sanatoria</i>		
		<i>Jan. 1st,</i>	<i>Admitted</i>	<i>Total</i>
		<i>1934.</i>	<i>Since.</i>	<i>Treated.</i>
Adult Males	...	40	38	78
Adult Females	...	17	35	52
Children	...	11	8	19
		—	—	—
		68	81	149
		—	—	—

These figures show that 81 new patients were admitted, compared with 67 in the previous year, the increase being mainly among women; only 8 children were admitted against 9 in 1934.

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

			<i>Not</i>	<i>Died in</i>
	<i>Quiescent.</i>	<i>Quiescent.</i>	<i>Sanatorium.</i>	
Pulmonary:				
No T.B. in sputum ...	16	—	—	1
T.B. in sputum ...				
Early ...	25	—	—	—
Middle ...	5	2	—	5
Late ...	—	2	—	5
Non-Pulmonary:				
Bones and joints ...	5	—	—	2
Abdominal ...	—	—	—	—
Other organs ...	4	—	—	—
Peripheral Glands ...	1	—	—	—

The importance of securing early admission to sanatorium of pulmonary cases is illustrated by these figures as of 42 patients admitted with no tubercle bacilli (or few only) in the sputum, death occurred in 1 case, or 2.4%, against 10 deaths among 19 patients (i.e. 52.6%) admitted at later stages. Further, during the past six years, of 300 patients admitted before the tubercle bacillus was detected in the sputum, the disease was arrested in 272 cases, 90.6 per cent, while of 207 admitted at a later stage arrest was recorded in 53 cases or 25.6 per cent only.

Statistics extending over a period of years regarding the number of patients who have received institutional treatment at the charge of the Council are of double interest both as affording evidence of the substantial decline of tubercular infection and because this form of care in itself contributes to the reduction in prevalence aimed at. In the report for 1933 it was pointed out that adult admissions to sanatoria and other similar institutions have fallen from 89 males and 71 females in the peak year, 1924, to 38 and 35 respectively in 1934. The figures relating to children are

of special importance but those for Cambridge children are complicated by the fact that some children who would formerly have been admitted to sanatorium now attend the Open Air School. Limiting the comparison therefore to rural children, it is found that of a total of 386 children from the rural area who received institutional treatment during the past 17 years (an annual average of 23 new admissions), the highest number of admissions in any one year was 33 in 1922, and the lowest 5 in 1934, the year under review. It should be remembered that in the earlier years of this branch of administration a selection had to be made from the possible candidates for sanatorium treatment, and there was always a long waiting list, whereas the reservation of beds for children has now been discontinued owing to the difficulty of filling them and there has for some years been no waiting list. The Council may therefore reasonably congratulate themselves on the success of their policy of institutional care, which was developed and carried out largely on the advice of their Tuberculosis Officer.

VENEREAL DISEASES.

The County Council's scheme for combating venereal diseases 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.

Treatment Centre. The constituent Authorities for the treatment centre at Addenbrooke's Hospital are the Cambridgeshire, Isle of Ely and Huntingdonshire County Councils, but any applicant is entitled to receive treatment free of charge. Afternoon and evening clinics are held

weekly, at separate hours for the sexes, and six beds are reserved for in-patient treatment. Facilities are afforded for irrigation of cases of gonorrhoea between clinic days. The treatment facilities provided have been advertised in public places.

The work done at the treatment centre during 1934 is summarised in the following tables. Tables I and II relate to the whole area served by the clinic, which practically means the area from which patients are in the habit of attending Addenbrooke's Hospital as a general hospital, 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, 1934 ...	113	54	167
Old cases readmitted...	17	10	27
"First time" patients			
during 1934 ...	180	87	267
Total under treatment	310	151	461
Left without complet-			
ing treatment ...	48	11	59
Completed treatment			
but not final tests	13	3	16
Completed treatment			
and tests ...	99	70	169
Transferred to other			
Treatment Centres	26	4	30
Under treatment at			
end of year ...	124	63	187

Out-patient attendances:					
(a) On Clinic days...	2355		763		3118
(b) On intermediate					
days	4172		228		4400
(c) Total	6527		991		7518
Aggregate " In-patient					
days "	559		603		1162

TABLE II.

		<i>Other</i>	<i>Total</i>	<i>Total</i>
	<i>Cambs.</i>	<i>Counties.</i>	<i>1934.</i>	<i>1933.</i>
New out-patients during 1934 (for first time) ...	181	86	267	244
*Total out-patient attendances ...	6266	1252	7518	4173
Aggregate in-patient days...	561	601	1162	772
Doses of salvarsan substitutes ...	577	330	907	613

TABLE III.

CAMBRIDGESHIRE PATIENTS.

		<i>1934.</i>	<i>1933.</i>	<i>Increase or Decrease per cent.</i>
New out-patients...	...	181	145	+ 25
*Total out-patient attendances	... ..	6266	3352	+ 87
Aggregate in-patient days		561	429	+ 30

* These figures include intermediate attendances for irrigation, etc.

The treatment centre serves adjoining Counties as well as Cambridgeshire. The latter area accounted during the year for 67 per cent. of the new cases and 83 per cent. of the total attendances. Since the centre was first opened in 1917 it has been attended by 4616 patients, who have made 33,299 attendances on fixed clinic days. Of the total of patients attending since the initiation of the scheme 2,351 were Cambridgeshire residents. These figures do not include intermediate attendances for irrigation, which in 1934 numbered 4,400, paid in considerable measure by Cambridgeshire patients.

The information available from the annual returns from the Treatment Centre for the Ministry of Health which relates specifically to Cambridgeshire patients shews an increase on the previous year of 25 per cent in patients attending this centre for the first time and an increase of 87 per cent. in the total attendances paid by them. While the increase in the average number of attendances paid per patient is, *prima facie*, a matter for satisfaction, from another point of view there is less ground for congratulation. In so far as the increase in cases was due to patients who proved not to be suffering from venereal diseases, this is an advantage, but on the other hand, the rest of the increase was accounted for by new syphilis patients (62 against 40 in 1933), whose numbers had been steadily declining for some years. New gonorrhoea patients shewed a decrease from 122 in 1933 to 99 in 1934, their proportion to new syphilis cases being approximately as 1.6 to 1, against 2.2 to 1 for all Treatment Centres in England and Wales. The proportion of new female to male gonorrhoea patients also remained low, viz., 18 females to 81 male, a ratio of 2 to 9, which national experience suggests is wide of the mark. Broadly speaking, the

progressive decline in new syphilis patients, who had probably made good use of the centre, received a check in 1934, while, instead of a desired increase in resort to the Centre by gonorrhoea patients (especially women), their numbers actually decreased. Reference will be found on page 43 of this report to the Ministry's Circular No. 1474, and though this refers more particularly to syphilitic mothers and children, the measures there advocated may have their application to the local problem discussed above.

Patients attending who proved not to be suffering from venereal disease constituted 35 per cent. of total new cases. This proportion has increased during the past three years from 22 per cent. in 1932 and 28 per cent. in 1933, and is now not far short of 38 per cent., the proportion for England and Wales. This substantial increase in the use of the clinic by persons who suspect that they may have contracted infection, and attend for skilled diagnosis to clear up doubt is a very satisfactory feature, especially when it is remembered that as the area is agricultural the homes of many patients are at some distance from the Centre.

In their Circular 1474 issued since the end of the year 1934, the Ministry deal with the problem of securing the attendance of pregnant syphilitic women and of children suffering from congenital syphilis at Treatment Centres until the completion of the period necessary for treatment. The prospects of protection from infection of the child about to be born are greatly increased by the expectant mother seeking advice at a really early stage and persisting in treatment till a cure has been effected, a result to which she may confidently look forward if these conditions are fulfilled.

The Minister sets out certain matters for the consideration of County Councils for the service carried out at the Treatment Centres at their expense, and these considerations are of general application as well as to the expectant mother and child. Emphasis is laid on the value of education of the patient through the staff of the Centres and of such other services as that of Maternity and Child Welfare, the School Medical Service and the midwifery service, together with the conveyance of information to the general public through lectures, films, etc., a service which the Council have for many years provided through the British Social Hygiene Council. Other important points emphasised are (a) co-operation between the Treatment Centre, the County Council's maternity and child welfare and school medical services and the general medical practitioner, and (b) effective following-up arrangements to secure maintenance of attendance by the agency of social workers, lady almoners, health visitors and clinic nurses, or by means of correspondence.

By no means the least important factor mentioned in the Circular is a careful regard for the convenience of the patient, whose position is often more difficult than that of the ordinary hospital out-patient. This would take into consideration hours of attendance and duration of stay, the reasonable comfort of the internal arrangements at the Clinic and a natural desire for privacy. At the Cambridge Treatment Centre structural improvements recently approved by the County Council should have a beneficial effect on attendance, owing to the regard which is had to the amenities, and the Council have also agreed to increase their rate of payment for the services of an orderly who will practically be in continuous attendance.

There are 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. The supply is distributed from the Centre.

Laboratory Diagnosis. Under the Council's scheme, specimens are examined free of charge to medical practitioners by pathologists connected with the University. During the year 369 specimens were tested by the Wassermann reaction for syphilis and 523 were submitted for bacteriological examination, as against 311 and 494 specimens respectively in 1933. Of these, 805 specimens were sent from the Treatment Centre. The total number of specimens examined since the scheme was instituted in 1917 is 5,943 for the Wassermann reaction and 6,131 for bacteriological examination.

Propaganda Work. The Cambridgeshire Branch of the British Social Hygiene Council undertook for the County Council public education in the prevention of these diseases, which in so many ways exert a detrimental influence on the physical and mental efficiency of the nation. The subject is not a popular one among auxiliary workers and very appreciative thanks have been earned by the officers and Committee of the Branch who have very efficiently undertaken this difficult task, which may be regarded as the Cinderella of the Public Health Service.

The usual autumn campaign was carried out in four villages, lectures illustrated by films being given by a member of the central staff of the British Social Hygiene Council, the audiences at Gamlingay, Harston and Swavesey

averaging about 80 persons. The meeting at Linton, organised in conjunction with the Women's Institute was particularly successful, 190 persons attending, while considerable interest was shown by all audiences addressed, the usual expressions of appreciation following the meeting.

Apart from the work of the Branch, two films were shewn during the year on commercial lines at the Cambridge cinemas, and the Branch therefore undertook no propaganda in the town. During the winter, however, a woman lecturer from the central staff addressed an appreciative meeting of about 80 members of the Cambridge Women's Co-operative Guild on Social Hygiene and Citizenship.

BLIND PERSONS ACT.

Since the passing of the Blind Persons Act, the detailed work in the interests of the blind has been carried out by the Cambridgeshire Society for the Blind, who have received an annual grant from the County Council. During the year the existing arrangements were revised following on a Conference held between representatives of the Public Health and Housing Committee and of the Society to discuss a suggestion put forward by the Ministry of Health for a new scheme. The scheme agreed upon, and subsequently confirmed by the County Council, includes the following duties to be undertaken by the Society for the Council.

(1). Registration and Classification, according to age and capability, of all blind persons for the time being ordinarily resident in the Administrative County. As regards new additions, these are to be limited to persons examined and certified by a medical practitioner of special experience in ophthalmology. This arrangement is in force, the form

of certificate BD8 drawn up by the Prevention of Blindness Committee of the Union of Counties Association for the Blind and advocated by the Ministry of Health, being used.

(2). Notification to the Maternity and Child Welfare Authorities of young children with defective vision and to the Local Education Authorities of children with defective vision not attending school; also notification to and co-operation with the County Council in cases of persons over school age for whom training appears desirable.

(3). Provision in homes for blind children under five years.

(4). Assistance in the supply of materials, tools, etc. for use by blind persons in the homes in repairing or making articles for sale, and in the sale of such articles; also the augmentation of the wages of such home workers on a scale approved by the County Council.

(5). Provision of home teachers for the instruction of the blind in such occupations as handicraft and Braille-reading, with the provision of books and other amenities.

(6). Co-operation with the County Council in the provision by the Council of relief to necessitous and destitute blind persons, and of accommodation of blind persons in hostels and homes.

The County Medical Officer of Health was subsequently directed by the County Council to arrange for supervision of the services carried out for the Council by the Society, and from visits paid to the homes of the blind with the two Home Teachers, both in the town and in the villages, is

impressed with the variety in the forms of help given as regards work, income and amenities, not the least being advice regarding wireless installations, which have done so much to link up blind persons with the world outside their homes. The service of the Home Teachers is efficient, and they are well received by those who are the object of their care.

The County Council have not made a declaration under Section 5 of the Local Government Act, 1929, under which financial assistance to the necessitous and destitute blind would be given through the Blind Persons Act and not as relief through the Public Assistance Committee. Arising out of the report of the Ministry on the survey of the Health Services this matter was discussed fully at the conference between representatives of the Council and the Society for the Blind, recommendations on the following lines being adopted:—

Applications not to be dealt with by the Blind Society but by the Public Assistance Committee, the latter body giving special consideration to any report by the Society, and the assistance granted being paid through the officers of the Society.

Increased expenses to blind persons due to their disability to be taken into consideration by the Guardians Committees when dealing with applications, and receipts from benevolent or charitable sources to be disregarded.

Consideration by the Public Assistance Committee of the question of a minimum scale of relief.

The effect of resolutions passed by the Committees concerned or by the Council on consideration of these recommendations is as follows:—

The method of payment of relief through the Public Assistance Committee to necessitous blind persons to remain unaltered for the present.

In framing a scale of assistance the question of excluding receipts from benevolent or charitable sources to be considered.

In cases of unemployment due to blindness, the increased expenses due to the form of disablement to be reckoned at 5/- per week.

The Guardians Committee to be asked to report to the Public Assistance Committee on cases of blind persons in receipt of relief.

The following statistics relating to blind persons within the area of the Administrative County are furnished by the Cambridgeshire Society for the Blind for the year 1934.

The 28 names added to the register include those of 4 blind persons transferred from other areas. After allowing for 3 deaths, 4 transfers away from the area and 11 de-certifications, the number on the register is 235 (Cambridge 114, rural area 121) an increase of 20 on the total at the end of the previous year. There are also 30 cases on the observation list.

Although the register shows, on balance, an increase of 20 names, the proportions in the respective age-groups

remain practically unchanged. Of the total number, 185, or 78.7 per cent. are aged 50 years and upwards, 44 or 18.7 per cent. are between 21 and 50 years of age, while only 6 or 2.6 per cent. are below 21 years. A point again to be emphasised is the fact that for six years past there has been no blindness within the meaning of the Blind Persons Act recorded in children below 5 years of age. In this County the infrequency of notification of cases of ophthalmia in the newly born, a record repeated from year to year, points to the value of the preventive work undertaken by doctors and midwives at birth as removing an important cause of early blindness, while the substantial decline in attendances by syphilis patients at the Venereal Diseases Treatment Centre implies a decrease in maternal syphilis, another cause of damage to the sight of the child. With the increase in the proportion of old people in the population an increase in the proportion of blind persons at the higher ages is naturally to be looked for, unless more systematic certification and the use of the form previously referred to counteract this.

Including women engaged in domestic pursuits, there are on the register 202 persons described as unemployable, against 179 in 1933. Of the remainder of those over 16 years there are under training 1, trainable but not under training 1, employed as Home Workers, 15, employed elsewhere 16. No blind persons are employed in workshops for the blind. The two Home Teachers paid 3,052 visits during the year, 1,600 in Cambridge and 1,452 in the rural area; the value of this supervision has been referred to elsewhere.

MENTAL DEFICIENCY ACTS.

During the year 25 cases newly notified under the provisions of the Mental Deficiency Acts were reported upon to the Committee. Of these, 8 were notified by the County Education Committee, 4 by the Borough Education Committee, 4 by the County Police, 3 through the Public Assistance Committee, 2 by the Cambridgeshire Voluntary Association for Mental Welfare, 1 from the County Mental Hospital and 3 through other channels. There were also brought to the notice of the Committee, for ascertainment purposes, 2 children attaining the age of 16, resident in the rural area.

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

Petition for Certified Institution	...	...	7
Petition for Guardianship	...	...	1
Statutory Supervision	...	...	8
Voluntary Supervision	...	...	2
Referred for Lunacy Order	...	...	1
No action called for	...	...	5
Not subject to be dealt with	...	...	1
			—
			25
			—

All of the 7 new cases requiring admission to certified institutions were admitted in 1934, including 1 approved in 1933, and two patients were placed under Guardianship Orders. The number therefore actually admitted to certified institutions or guardianship during the calendar year 1934 was 9. Leave of absence on licence was granted in 5 new cases, with a view to eventual discharge or guardianship if successful, the total number thus on trial at the

end of the year being 18. Special attention is directed to this fact, as evidence that it is not the intention permanently to detain in institutions all defectives who are admitted under Order, but that it is desired that detention shall be temporary only in the case of those defective persons whose behaviour and progress while in institution afford reasonable ground to suppose that they may eventually return to community life without detriment to themselves or to the public.

Since 1913, when the Council first began to administer the Acts, 142 defectives have been placed under the statutory supervision (undertaken mainly by the Voluntary Association), 208 have been sent to institutions, and 17 have been placed under Guardianship. Allowing for deaths, discharge to homes and transfer to other institutions, there remained at the end of the year under review 140 cases who were under Order for maintenance in institutions, and 10 under Guardianship, while 85 were under statutory supervision in their homes, making a total of 235 under the control of the Local Authority. Of the 140 patients in Institutions under Orders, 18 were allowed out on licence, the net number actually in Institutions being 122, of whom 3 were maintained in State Institutions for violent defectives by the Central Authority. There were also 62 defectives in receipt of Poor Relief (6 in Public Assistance Institutions and 56 domiciliary) with regard to whom no such action has yet been taken, making a total of 297 defectives subject to be dealt with. In addition, there are ascertained by the Local Authority 225 defectives under voluntary supervision in their homes, 17 maintained by relatives or others in institutions and one defective whom the Local Authority are assisting to maintain in institution under their permissive powers, any of whom may at any time become subject to be dealt with.

Excluding high grade defective children aged 7 to 16 years, this brings the proportion of known defectives to 522, equivalent to 3.7 per 1,000 of the Census population.

Any report on work undertaken for the benefit of the mentally defective would be very incomplete if it failed to take note of the activities of the Cambridgeshire Voluntary Association for Mental Welfare, a body which commenced work some years before the County Council became the Statutory Authority in 1913. Their valuable previous experience led the Council to entrust to them the supervision of such defectives as are subject to be dealt with under the Mental Deficiency Acts but who may remain in their homes without detriment. Certain duties of enquiry and supervision are also undertaken by the Association for both Borough and County Education Committees, and they undertake also domiciliary visitation and advice in cases which do not require the intervention of the Statutory Authorities. During the year, 286 home visits for supervision and advice were paid to mentally defective persons referred to them by the County Council under the Mental Deficiency Acts, 266 visits to children referred to them by the County and Borough Education Committees and 268 visits to non-statutory cases, a total of 820 visits during 1934.

Other duties undertaken for the County Council, in return for an annual grant, includes ascertainment of defective persons, escort to and from institutions, and the administration of the Occupation Centre, which is situated in Cambridge and subsidised by the County Council. This Centre, for which a separate grant is made by the Council, affords occupation and simple training for defective children.

and young persons who are living at home, and the usual favourable report on its work has been received during the year from the Board of Control. Twenty-six members, 15 under 16 years of age and 11 over that age, attended during the year, 19 remaining on register at the end of 1934. The average daily attendance of 13.7 compares favourably with 11.5 for 1933. For reasons of transport and escort, the attendance is mainly by Cambridge residents.

For many years past the difficulties of mental deficiency administration have been added to by the lack of available accommodation in appropriate institutions for those defectives for whose protection and control, home care and the control of a Statutory Guardian are insufficient. There was much waste of time and effort in searching for accommodation, and at the end of the year defectives under Order from the Administrative area were scattered among as many as 18 institutions. As far back, therefore, as 1920, the County Councils of Essex, East and West Suffolk and of Cambridgeshire entered into an agreement with the Authorities of the Royal Eastern Counties Institution, Colchester, for an extension which would eventually provide additional places for 1,100 defective persons. The portion of the scheme now completed will, in the middle of the year 1935, provide 34 additional places for Cambridgeshire statutory cases. This will greatly relieve the Public Health Department in their search for accommodation for defectives not in an institution, while certain of those at present in the less satisfactory type of institution, such as Public Assistance accommodation, may then be transferred to an institution specially designed and administered to meet their needs.

Last year's report included a summary of the recommendations of the Departmental Committee on Sterilisation, with reference to the principle of voluntary sterilisation of persons who are the subjects of certain grave mental or physical disabilities, including mental deficiency. The approval of the Committee was coupled with the condition, among others, that sterilisation should not be regarded, in practice, as a cheap substitute for institutional care, where circumstances call for the latter form of protection. A joint Committee composed of representatives of organisations directly interested in this problem, including the Central Association for Mental Welfare, has now for some time been at work with the object of securing legislation on the lines of the Report as soon as possible, by preference as a Government measure, and a draft of a Bill for this purpose is now under consideration. At this stage the details are confidential, but in the view of the resolution by the County Council in support of the sterilisation principle, it is satisfactory to know that progress is being made.

HEALTH EDUCATION.

Enlightened co-operation on the part of the general public is clearly essential in the more personal branches of health administration and special importance therefore is attached to the work which is being carried out by the Council to secure this end either directly or through the agency of voluntary organisations. The educational work undertaken by the Health Visitors under the maternity and child welfare scheme for the benefit of mothers and young children, mainly in their homes but also at Infant Welfare Clinics is of great value in raising the normal standard of health of the child, and this County

has shared fully in the reduction of mortality in early life which has been so striking a feature of the present century. The instruction on mothercraft which is being given through the Education Committee to older girls at the Sawston Senior School, which draws its pupils from 9 parishes, is an example of what may be done when the grouped school system has been extended so as to cover the whole rural area.

Care of the Teeth. During the winter addresses have been given by a lecturer from the Dental Board of the United Kingdom (a) to children at the elementary schools through the County Education Committee and (b) to older audiences through the Rural Community Council. The addresses to children were much appreciated, but adult audiences are not as encouraging as might be wished. Both, however, will be continued.

Cancer. The provision in the estimates of the County Council of a sum of £50 has for some years enabled public addresses to be given on cancer, with the object of ensuring early diagnosis and treatment. They are given during the winter months by members of the clinical staff of Addenbrooke's Hospital. During last winter addresses were given to men in six villages under arrangements made by the Rural Community Council, those to women in eight villages being organised by the County Federation of Women's Institutes. It is the intention to continue both series, the Council utilising the same voluntary organisations.

Influenza and the Common Cold. The numerical prominence of influenza and pneumonia in the causes of death make education on this subject a matter of conse-

quence, and this has again been undertaken by the Rural Community Council at their own charge. Four lectures with village audiences averaging 45 persons were given by Dr. Leslie Cole of Addenbrooke's Hospital and it is proposed to continue them.

Orthopaedic. Addresses on the causes of crippling have been given in the villages for some years by Dr. Roderick and Dr. Gaskell and were continued during the past year. They are organised by the Rural Community Council for the British Red Cross Society. Two addresses were given during the year ended.

Nutrition. Addresses on this important subject, which had been given by the County Medical Officer of Health to Teachers and to Health Visitors, were continued to Women's Institutes and Infant Welfare Centres as opportunity arose. The general factors influencing development of the child, such as fresh air, rest, exercise, and clothing are dealt with as well as food. Under the last heading the recent wide developments in the scheme of supply of milk to school children and the stimulus given to the production of graded milk are subjects which may be explained to the public advantage. The supervision also of schemes will afford valuable educational opportunities to the staff of the Agricultural Education Committee.

Venereal Diseases. For the propaganda work undertaken through the British Social Hygiene Council see the section on Venereal Diseases.

SCHOOLS.

During the year, under the Education Committee's Regulations, Head Teachers in the Cambridgeshire Elementary Schools notified to the Public Health Department 165 outbreaks of infectious disease of all types, those notifiable to the Local Sanitary Authorities under statute being diphtheria from 1 and scarlet fever from 39 schools respectively. For enquiry into and advice regarding cases of diseases not compulsory notifiable by law but notified by Teachers under the Committee's scheme 1378 home visits were paid by the School Nurses, and the Teachers were kept informed from the Public Health Department Of special visits paid to the schools on 15 occasions by the County Medical Officer of Health, 1 only was necessary for diphtheria at which 34 swabs were taken with negative results from all, and 13 for scarlet fever.

Rural Cambridgeshire shared in the unusual prevalence of scarlet fever which obtained in England and Wales generally, but was exceptionally fortunate in escaping the similar national experience with regard to diphtheria. The variability of the symptoms, the possibility of attack without rash and the difficulty of recognition of healthy carriers of infection contribute to the difficulty of control of scarlet fever among elementary school children, and in view of these difficulties attention may specially be directed to the necessity for adequate ventilation of class-rooms and the prevention of their over crowding, as also to the advantage to be gained from open-air classes in the summer months. The open-air type of construction now advocated by the Education Committee and approved by the Council should also minimise the danger of spread of infection through school association.

The following paragraph from a memorandum introducing the Annual Report on the School Medical Service may appropriately be repeated here. "The system of co-operation by Head Teachers has proved of the greatest value and whereas children actually suffering from infectious diseases were formerly detected in school during special inspections this now seldom occurs. There can be no doubt that the action of the Teachers, combined with the information imparted to the mothers in their homes by the School Nurses, has contributed to the reduction in mortality among children from measles and whooping cough which is a feature of recent years. It is the fact that during a recent period of ten years the combined mortality from these diseases was lower by not less than 50 per cent than that which occurred during the first ten years of the operation of the school medical service, and this may be taken as an excellent example of the value of co-operation by different Committees and Authorities concerned, bringing about the same result though differing somewhat in motive."

During 1934, two other important developments were the inauguration of the scheme of physical instruction through the two newly appointed Organisers of Physical Education and the development of arrangements for the cheap supply of milk to children in schools under the scheme submitted by the Milk Marketing Board and approved by the appropriate Government Departments. An adequate milk supply has resulted in increased height and weight among school children elsewhere and no doubt will contribute to the improvement of the physique of Cambridgeshire children, provided that careful supervision is exercised to ensure the production of cleanly and tubercle-free milk.

After an experience of some 25 years the results obtained from the working of the arrangements sanctioned by the Education Committee in the interests of the health of school children present some decidedly satisfactory features, although doubtless there is still much to be achieved. A greatly improved standard of personal cleanliness is indicated by the fact that the proportion of children with uncleanly heads has been reduced to one-sixth of the pre-War proportion. The prevalence of ringworm of the scalp, which caused much loss of school attendance, has been reduced also to such an extent that this contagion is becoming an exceptional occurrence.

The standard of general physique attained is of course of importance, and the Committee specially concerned with the health of elementary school children may therefore note with some satisfaction the decline in the proportion of children of all degrees of subnormal nutrition from an annual average of over 21 per cent. during five pre-War years to 5.2 per cent. in 1934. Experience during the past five years shews a steady decline from 11.7 in 1930 to 5.2 in 1934 and it is reasonable to anticipate that further improvement may result from the schemes of milk supply and physical instruction recently inaugurated in the elementary schools. In the Secondary and Technical Schools, of close on 400 pupils examined during the year only 3.3 per cent. of them shewed evidence of subnormal nutrition, a lower proportion than that in the elementary schools.

SUPERVISION OF THE MILK SUPPLY.

Specially Designated Milk ("Graded Milk").—The following licences for the production and distribution of graded milks were mentioned by the District Medical Officer of Health as being in operation during 1934.

Cambridge Borough.

Certified Milk	...	...	...	...	1
Grade A (Tuberculin Tested) Milk	...				1
Pasteurised Milk	...	...	...	...	2

Newmarket Rural District.

Pasteurised Milk (supplementary licences for sale of)	2
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Chesterton Rural District nil.

South Cambridgeshire Rural District nil.

No new application for a producer's licence was received by the County Council, but one licence to produce Grade A (Tuberculin Tested) Milk was issued to a firm in the Chesterton Rural District by the Ministry of Health.

The position with regard to milk supply was not greatly altered during 1934. The old Special Designations Order of 1923 continued to operate, but it was of limited effect because the producers and dealers were not prepared to take advantage of it without some financial inducement. In other words, unless they could be assured that the public would pay a higher price for graded milk, they did not feel able to undertake the extra expense of production which was felt to be entailed. This attitude cannot be held to be altogether unreasonable, but since by far the largest section of the public were unable to budget for a higher milk price, the effect was that the Special Designations Order had not gone far to improve the milk supply as a whole.

Since the beginning of 1935, however, the arrangement known as the Accredited Producers' Scheme has come into force. This provides that any producer who will bring his methods up to such a standard as will ensure the production of milk of a grade equal to the standard laid down for Grade

A Milk in the original Order can, while selling his milk at the ordinary price, receive a sum out of a pool set up under the Milk Marketing Scheme, which will help to make it worth his while to take the extra trouble involved.

This may hardly be the place to discuss the operation of the scheme, partly by reason of the fact that this report refers to 1934 and partly by reason of the fact that in any case it has not been in operation sufficiently long for its effects to be appreciated. There can be no doubt that it will ensure the production of greatly increased amounts of clean milk, but it has certain obvious disadvantages. The first is that it deals only with the production and not with the sale and distribution of milk. This means that Accredited Milk can be mixed with milk of the lowest standard as soon as it leaves the producer's hands, the result being that it may arrive in the consumer's hands in a highly contaminated state. The public has no means of knowing whether this is so in any particular case, as Accredited Milk is only produced, and not sold, as such. Furthermore the scheme does little to eliminate tuberculosis from the milk supply. It is true that the Accredited Producer has to submit his cows to veterinary examination periodically, but experience shows that the detection of tuberculous animals by routine inspection is a difficult matter. Even when tubercle bacilli have been detected in a sample of milk, the veterinary surgeon often has the greatest difficulty in finding the responsible animal without tuberculin testing, and it follows that, in the routine examination of a herd not even suspected to be giving tuberculous milk, many animals which are a danger to the supply must be overlooked.

In the absence of universal tuberculin testing (which is probably at present impracticable), pasteurisation of even clean milk would seem to be required in order to make it safe.

The Special Designations Order is at present under revision, and it is apparent that the whole milk problem is in a state of flux and that great changes may come about within the next few years.

Bacteriological Examination for Estimation of Cleanliness.—This has been undertaken by the Cambridge Town Council, the Newmarket Rural District Council, and the South Cambridgeshire Rural District Council, but not by the Chesterton Rural District Council.

In Cambridge, 55 samples of graded milk (Certified 13, Grade A. (T.T.) 14, and Pasteurised 28) were examined bacteriologically. All the samples of Certified milk reached the standard required under the Order, but two samples of Grade A. (T.T.) and one of Pasteurised fell short of it. Forty samples of "ordinary" milk were also examined for cleanliness in Cambridge, and twenty-nine of these reached Grade A. standard. This number appears to be a steadily increasing one, indicating an improving standard of cleanliness.

In Newmarket Rural District, 47 samples of milk were examined and twenty reached Grade A. standard. This appears to be a definitely lower percentage than that found in 1933, but nevertheless the general standard of cleanliness was reasonably high, and it merely happened that the general bacteriological count and the bacillus coli count did not sufficiently often coincide to produce the same number of Grade A. milks as in the previous year.

In South Cambridgeshire, only seven samples were examined, and none of them reached Grade A. Standard. The general bacteriological count was decidedly higher in this area than in either the Borough of Cambridge or the Newmarket Rural District, but Dr. Morgan draws attention in his report on this district to the value of this type of examination, in that it furnishes concrete evidence which can be laid before the producer to show him the need for improvement in his methods.

The scheme of advisory service directed by the County Organiser of Agricultural Education continues in operation, and its activities have extended remarkably since the Accredited Producers' Scheme came into force. The County Organiser has expressed the view that he has achieved more since the inception of the scheme than all his previous efforts produced.

“ The advisory service in milk production under the direction of the Agricultural Education Sub-Committee, to which reference was made in the last annual report, was continued during the current year, and through it the staff was brought in contact with an increasing number of producers. A large number of visits were made to milk producers, who had previously been in touch with the Agricultural Education Department, to advise on alterations in buildings, equipment and methods thought necessary to enable milk of Grade A. standard to be produced consistently throughout the year. There is little question that the probability of the early introduction of the Accredited Milk Scheme stimulated the greater part of this interest. It was, however, among producers who had not been in touch with the agricultural education staff that the benefits of advice were most visible, and it is interesting to record

that many of those, who eventually took out Grade A. licences, were producers who previously had not shown interest in the advisory service or in clean milk competitions.

The staff was also able to assist in connection with the Milk in Schools Scheme through advising those who had undertaken to supply milk under that scheme. Since the close of the year there has been every indication of a genuine attempt on the part of a great number of producers to improve their supplies, a direct result of the decision of the Milk Marketing Board to recognise that milk of good keeping quality should command a slightly higher price than milk of higher bacterial contents."

Milk Sampling for Tuberculosis.—There is still no routine veterinary inspection of herds, and the procedure for the detection of tuberculosis in cattle is confined to the bacteriological and biological examination of samples of milk taken from producers or vendors. If tubercle bacilli are found in any sample, the County Veterinary Inspector pays a visit to the producer in question and endeavours to detect the animal in the herd which is giving tuberculous milk. As has already been pointed out, however, it is but rarely that the offending cow is detected at once, and usually the veterinary surgeon has to take further samples either from suspicious cows or from groups of cows until, ultimately, by a process of narrowing down, the offender is discovered. The biological examination of a sample of milk takes six weeks, so that by the time the original sample has been reported upon, and further samples have been taken by the veterinary surgeon and examined, three months or more may have elapsed. During this time the sale of tuberculous milk has been going on, and the offend-

ing animal may have been sold, in which case no result from the veterinary investigations may eventuate, so that a great deal of time and energy may have been expended without achieving anything in the way of the prevention of the sale of tuberculous milk to the public. Cumber- some and slow as the method so often is, however, it has to be admitted that it is better than nothing.

During the year 90 samples of milk were taken, 40 in the Borough of Cambridge and 50 in the Rural Districts. Of the samples taken in the Borough, however, only 19 were actually produced there, so that 71 samples of milk were produced in the Rural District. Eight samples were found to contain tubercle bacilli, three of these being produced in the Borough. The samples taken in the Borough are taken and submitted for examination through the Town Council and its officers, while all sampling in the rural area is now done by the County Council and its officers.

The action taken on the eight positive findings was as follows:—

1. Produced at Waterbeach. This sample was one of a series of quarterly samples which were being taken because of previous positive findings. Following the positive finding in the case of the sample under discussion, the veterinary surgeon ordered the immediate slaughter of a suspected animal under the Tuberculosis Order.

2. Produced at Cambridge. Herd was visited by Veterinary Surgeon, who found no definite clinical evidence on which to order the slaughter of a cow. Sale

of milk from a suspected animal was suspended, and samples were taken for biological examination. The sample from the suspected animal was found to be positive, and it was slaughtered under the Order.

3. Produced at Fulbourn. No clinical evidence of tuberculosis was found on veterinary examination. Samples were taken for biological examination. A positive result was obtained in the case of one cow, which was slaughtered.

4. Produced at Fordham. One cow was suspected on veterinary examination, and sale of milk from it was suspended. A sample of milk from this cow ultimately showed a positive result, and it was slaughtered.

5. Produced at Soham. Veterinary inspection revealed two definitely tuberculous cows, which were ordered to be slaughtered at once under the Tuberculosis Order. Samples of milk were taken from the rest of the herd for biological examination, and a further cow was slaughtered as the result of a positive report.

6. Produced at Cambridge. Veterinary inspection discovered two cows with suspicious udders, and the sale of milk from them was suspended. Examination of samples of milk proved negative, however, and no source of infection was ever detected in this herd.

7. Produced at Cambridge. Veterinary inspection and milk sampling were both negative in this case, and no tuberculous animal was discovered.

8. Produced at Over. Veterinary inspection and milk sampling gave negative results. No tuberculous cow was detected.

In addition to the samples enumerated above, two further samples may be mentioned. The first was produced at Shudy Camps, and the County Medical Officer for West Suffolk reported that a sample of milk from the herd offered for sale in his county was tuberculous. Veterinary inspection revealed no tuberculous animal, and samples were taken from groups of animals in the herd. One of the group samples gave a positive result, and samples were then taken from the individual cows in that particular group. One cow in the group gave a positive result and was then slaughtered. This sample is a particularly good instance of the unsatisfactory side of the procedure mentioned above. Although sampling at every stage showed that a tuberculous animal undoubtedly existed, its detection took nearly six months to accomplish, during which time the sale of its milk could not be prevented.

The other sample was produced at Morden Grange, and was taken by an officer of the London County Council prior to the sale of the milk in London. Samples were taken by the veterinary inspector, which all turned out to be negative, and no tuberculous animal was therefore detected.

Much has been said above which indicates the shortcomings of the present methods from the public health point of view, and the question of remedies naturally arises. Let it be said at once that no relaxation of the efforts now being made to ensure the production of clean milk at the source should be tolerated, whatever measures are adopted to render such milk even safer for human consumption.

The points to be emphasised are the need for some steps which will prevent clean milk from being mixed with dirty milk at any time prior to its delivery to the consumers, and which will make methods of despatch and delivery equal to methods of production, and the desirability of further measures for the elimination of tubercle bacilli from raw milk. Cleanliness of production can never ensure the absence of tuberculosis, and, from what has been said already, clinical inspection of cattle, though a help, is by no means an absolute safeguard. It would appear that the extension of facilities for tuberculin testing is advisable, with power to deal with reacting cows in such a way as to ensure that they will not continue to be used for milk production and that in the meantime all milk from non-tested cows should be pasteurised.

UN SOUND FOOD.

The inspection of slaughterhouses and other premises for unsound food is the duty of local sanitary authorities.

In the Borough of Cambridge, 8 tons 19 cwts. of meat were condemned during 1934, as well as articles such as sausages, tinned ham, prawns, cauliflowers, apples, and blackberries.

In Chesterton Rural District, 389 lbs. of meat were surrendered as unfit for human consumption. In South Cambridgeshire Rural District, 27 whole carcasses and 236 part carcasses were condemned, and in Newmarket Rural District no record of the amount of unsound food condemned appears in the report of the Medical Officer of Health.

SALE OF FOODS AND DRUGS ACTS ADULTERATION.

Rural Area.—As in previous years, these Acts have been administered by the County Council in the rural area through the Local Government and General Purposes Committee. The total number of samples taken and reported on by the Public Analyst during the year was 274 (214 in 1933), of which 200 were taken formally and 74 informally. The samples included 115 of milk and 14 of butter. Of the 274 samples analysed, 35 proved not to be genuine, all but one having been formally taken. Of the 115 milk samples (119 in 1933), five were taken informally. Two of the informal samples and ten of the total number were “appeal to the cow” samples. Twenty-six were deficient in fat in quantities varying from 2 per cent. to 25 per cent., and four were considered to contain added water of an amount varying from 3.29 per cent. to 34.94 per cent.

The vendor of the milk sample with 3.29 per cent. of added water was prosecuted and fined 10s.

The other three samples with added water all came from the same vendor, and the cases were taken together at the Cambridgeshire Divisional Court. He was fined £12 in one case and ordered to pay costs in the other two.

Cambridge Borough.—Samples submitted to the Public Analyst numbered 300, of which 11, or 3.6 per cent., were found not to be genuine. The samples included 155 of milk, of which 82 were taken formally. Eight samples (one informal) were reported deficient in fat in amounts varying from 5.33 per cent. to 12 per cent. One prosecution for a deficiency in fat of 11 per cent. resulted in the infliction of a fine of £3.

WATER SUPPLY.

A survey of the water resources of the County was included in the report for 1933, and it is not proposed to repeat the information this year.

Some account was also given of the procedure the County Council intended to adopt to give assistance under Section 57 of the Local Government Act of 1929, and the Council is making use of this procedure in all possible and suitable cases. The Act gives the County Council certain supervisory powers and enables it to assist proposed schemes. It does not give the County Council power to become water undertakers in case of default by a District Council.

In the Chesterton Rural District during the year shortages were experienced at Croxton, Eltisley, Gravely and Papworth St. Agnes, all villages in the statutory area of the East Hunts. Water Company, but not supplied by them. In the case of Fen Drayton, another village in the area of the East Hunts. Water Company, but not supplied, no shortage has been experienced, the supply coming from one public pump, which, it is said, has never been known to fail.

There was shortage at Milton, in the statutory area of the Cambridge Waterworks, but none at Coton, Madingley, Little Shelford or Teversham, villages also in the area of this Company, but not supplied.

Shortage was noted in the case of Boxworth, Caldecote, Harston, Hardwick, Harlton, Haslingfield, Longstanton, Newton, Oakington, Over and Toft, villages not in the statutory area of any company. In addition, the water was unsatisfactory at Comberton and Hauxton,

In the Newmarket Rural District, only at Kirtling was definite shortage experienced, but it is considered that a water scheme for Burwell, the Swaffhams and Lode would be a great advantage to those villages.

In South Cambridgeshire, special attention is drawn to the needs of Melbourn, Orwell, Litlington, Guilden Morden, Thriplow, Gamlingay, Great Chishill, Little Chishill and Heydon, as well as to a number of villages which are to be covered by a water scheme at present in course of construction in the old Linton Rural District. In addition, though the water is not actually short or unsatisfactory, Dr. Morgan considers that hardship is entailed in Meldreth, Bassingbourn, Fowlmere and Longstowe by reason of the long distance some of the inhabitants have to travel to fetch the water.

Out of fifty-six samples of water taken during the year in various parts of South Cambridgeshire, twenty-three were found to be quite unfit for drinking purposes and an additional six of second quality only.

DRAINAGE AND SEWERAGE.

In the Chesterton Rural District, there is no system of sewerage and sewage purification in operation in any part of the area. The need is not pressing in many instances, but it seems that a group of villages to the north of Cambridge, such as Girton, Histon and Impington, and another to the south, comprising Great Shelford, Little Shelford and Stapleton, form areas where schemes might be considered. The possibility of linking up with the Cambridge Borough system seems the most likely to develop, at any rate, in the northern section. Cottenham

and Willingham also present a problem in this connection, since, having a piped supply of water, they cause pollution of ditches and streams by untreated sewage.

Most of the new houses in the area have water closets connected to cesspools.

In the Newmarket Rural District, the only attempts at sewage purification have been made at Stetchworth and Cheveley, the former working well, but the latter often giving rise to complaint. The settling beds at Cheveley are too near the road, and are not adequate for the work.

In this area, Soham presents a particular problem. The dykes and ditches in and around the town are full of untreated sewage and give rise to great offence. In addition, privies are situated close to houses and the disposal of their contents and leakage into nearby ditches or on to ground of inadequate extent constitutes a grave danger to public health. There can be no doubt that one of the suggested schemes of sewage disposal should be implemented without delay. Serious pollution of the river also occurs here for the same reasons.

In South Cambridgeshire, Sawston is the only village which has even a partial system of sewage disposal. Parishes where the problem requires consideration are Linton, Gamlingay and Melbourn. At Linton, the sanction of the Ministry of Health to the water supply was only given on condition that a sewage scheme was provided within five years.

REFUSE DISPOSAL.

A scavenging scheme to cover the whole of the Chesterton Rural District was prepared during the year, but was rejected. Thirteen parishes make collections, nine

being organised by the Parish Councils, three being voluntary, and that at Papworth Everard being worked by the Village Settlement.

In Newmarket Rural District collections of unburnable rubbish are undertaken by the Parish Councils at Ashley, Burwell, Bottisham, Isleham and Soham, powers having been delegated by the District Council. The refuse is disposed of in disused pits.

In South Cambridgeshire, unburnable rubbish is collected by the District Council at Linton and by the Parish Councils at Sawston and Melbourn.

The trouble is that all of these collections are limited to unburnable rubbish, and opinions may vary as to what is burnable and what is not. Unfortunately, it is the rubbish which is usually regarded, by the collectors at all events, as burnable which is the greatest danger to public health. In the case of many cottages with a small area of garden ground, it is just this rubbish which presents the greatest difficulty as regards disposal.

HOUSING.

During the year, 920 houses were built, 599 in Cambridge (214 by the Local Authority and 385 by other persons) and 321 in the rural area, of which 31 were built by the Local Authority. Four of these were built in Chesterton Rural District and seven, begun in 1933 but actually completed in 1934, in Newmarket Rural District. The remaining twenty in South Cambridgeshire were begun by the old Caxton and Arrington Rural District in 1933, but were not completed till 1934.

Dr. Laird states that under the five year programme it was proposed to demolish thirty-four houses in Cambridge

in 1934. The number actually represented for this purpose under Section 19 of the Housing Act of 1930 was seventy-five, and the number of demolition orders made was forty-nine. In the case of another fourteen houses, undertakings not to use them for human habitation were accepted, while seventeen additional houses were actually demolished.

In addition to the seventy-five houses found to be not fit for human habitation, 1,455 houses in Cambridge were found to be "not in all respects reasonably fit for human habitation." Structural defects remedied after informal notice numbered 1,332, and after formal notice 27.

In the rural area, 204 houses were found to be unfit for human habitation, and a further 214 "not in all respects reasonably fit for human habitation." Structural defects remedied after informal notice numbered 190, and after formal notice 7. Sixty-eight demolition orders were made, and eighteen houses were actually demolished.

VITAL STATISTICS AND INCIDENCE OF INFECTIOUS DISEASE.

The Orders of the Minister of Health altering the boundaries of the County Districts extended the area of the Borough of Cambridge and reduced the number of Rural Districts from six to three, all as from April 1st, 1934. From that date the populations of the respective Sanitary Districts are estimated by the Registrar-General to be as follows:—

Administrative County	...	...	145,190
Cambridge	...	...	74,100
Rural Districts	...	...	71,090
Chesterton	...	...	30,781
Newmarket	...	...	18,960
South Cambridgeshire	...	...	21,349

The record of the vital statistics for the year is complicated by the changes which took place in the administrative areas at the end of March. The statistics of births, deaths and notifiable diseases set out in the Registrar General's tables for the calendar year give figures which combine the records of the areas to which they relate for the whole year with the records of the areas added to them from April 1st to the end of the year. There are no separate statistics for the former Linton, Melbourn and Swavesey Rural Districts as their records are included in those of the areas which absorbed or replaced them, but statistics up to March 31st are given for the former Caxton and Arrington Rural District which was divided into two for addition to the Chesterton and South Cambridgeshire Rural Districts.

To allow for this temporary complication, which concerns the year 1934 only, the Registrar General has supplied specially calculated populations for estimation of birth, death and notification rates for that year, which allow for the changes in the area, and thus in their populations, which were artificially effected by the Minister's orders. It will be understood that these figures do not represent actual populations, but are a statistical device for getting over a temporary difficulty. The populations on which the estimated rates set out in this annual report are based are therefore as follows:—

Administrative County	...	...	145,200
Cambridge	...	...	72,982
Aggregate Rural Districts	...	...	72,218
Chesterton	...	...	30,924
Newmarket	...	...	18,960
South Cambridgeshire	...	...	20,443

The excess of births over deaths yielded a natural increase of the population for the year of 113, compared with a natural decrease of 143 for the year 1934 and an annual average increase of 185 for the five previous years.

Birth Rate.—The statistics for 1934, based on figures furnished by the Registrar General are as follows:—

	<i>Registered Live Births.</i>	<i>Birth Rate per 1,000 living.</i>
Administrative County ...	1,733	11.2
Cambridge Borough ...	778	10.7
Rural Districts ...	955	13.2

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

	<i>Number of Births.</i>			<i>Birth Rate.</i>		
	<i>Total</i>			<i>Total</i>		
	<i>Boro'.</i>	<i>Rural.</i>	<i>County.</i>	<i>Boro'.</i>	<i>Rural.</i>	<i>County.</i>
1914 ...	993	1393	2389	... 17.4	19.1	18.3
1933 ...	694	1010	1704	... 10.0	13.5	11.8
1934 ...	778	955	1733	... 10.7	13.2	11.2

The birth rate for Cambridge, 10.7 per 1,000, though 0.7 higher than in the preceding year, was, as is always the case, much below that for the Great Towns (14.7), the Cambridge rate in 1934 thus being as much as 27 per cent. below the average for large centres of population. It will, however, be remembered that, owing to the date on which the 1931 Census was taken, the undergraduate population was included, and that some thousands therefore would need to be deducted from the estimated population before arriving at a birthrate which really represents that of the resident population.

Although sharing in the general decline, the Rural birthrate (13.2) was 23 per cent. above that recorded for Cambridge. Comparing the individual Rural Districts, the rates from highest to lowest, were: Newmarket 14.4 (273 births), Chesterton 12.9 (401), South Cambridgeshire 12.7 (260), and Caxton and Arrington 11.1 (21). These rates, compared with 19.7, the average annual rate for the five pre-war years ending 1914, again confirm the steady downward trend of the birth-rate in the County generally, which was only interrupted in 1920 by the exceptional conditions prevailing at the end of the War.

There were 78 illegitimate births in the Administrative County, 43 in Cambridge and 35 in the Rural Districts, compared with 33 in Cambridge, 53 in the Rural Districts, making a total of 86 in 1933. Calculated as a percentage of total live births, the proportion of illegitimate births in 1934 was 5.5 in Cambridge, 3.6 in the rural area, and 4.5 in the Administrative County, against 4.7, 5.2 and 5.0 respectively in 1933. These rates fluctuate within such wide limits from year to year that no conclusions of value can be drawn from the records for individual years. If, however, the annual averages for the two five-yearly periods 1925-29 and 1930-34 be compared, points of interest emerge. Calculated on a basis of illegitimate births per 1,000 live births, the proportion rose in Cambridge from 47.8 to 50.6, fell slightly in the Rural Districts from 45.6 to 44.7, and rose in the Administrative County as a whole from 45.6 to 47.2. (The proportion of illegitimate to total births in England and Wales in 1932 was 44.0 per 1,000.) A different result is obtained by stating the illegitimate birth-rate per 1,000 of the population. On this basis the rate fell in Cambridge from 3.2 to 2.8, in the Rural Districts from 3.5 to 3.1, and in the Administrative County as a whole from 3.3 to 2.9.

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

Borough of Cambridge	39 still-births, or 50.1 per 1,000
Rural Area	41 ,, ,, ,, 42.9 ,, ,,
Whole County	80 ,, ,, ,, 46.1 ,, ,,

Too much importance should not be attached to these figures for any given year as there is much fluctuation, the number of still-births in Cambridge having, for example, risen to 39 from 22 in the previous year. It is satisfactory to note that the local rates, if calculated on population, compare favourably with those given by the Registrar General for the nation. The still-birth rate for the whole County per 1,000 of the population was 0.55, against 0.62 for England and Wales, that for Cambridge was 0.53 against 0.66 for Great Towns, while the Rural rate was 0.56.

Death Rate from all Causes.—After allowing for deaths occurring away from the usual place of residence, the total number of deaths in the whole County was 1,620 (Cambridge 692, Rural 928), being 227 fewer than in 1933. The nett death rate for the whole County was 11.2 per 1,000 of the population (England and Wales 11.8) and 1.7 below the average (12.9) for the preceding five years. The rates for Cambridge and the rural area were 9.5 (Great Towns 11.8) and 12.8 respectively. For the Census reason stated when considering the birth-rate, the estimated Cambridge rate is probably somewhat below the actual rate, but if allowances were made for this the rate would still be a low one.

The Registrar-General has supplied a new arithmetical factor for application to the local rates, based on the difference in the age and sex constitution of the local population

from that of England and Wales at the beginning of the present decade. By applying it to the crude rates for the year under review these differences, which affect the death rate, are allowed for, and the corrected death rate which is thus obtained enables a fair comparison to be made of the tendency to death in the area compared with that for the nation. Application of the factors given for this area for the period after April 1st, 1934, produces the standardised general death rate of 8.8 per 1,000 for Cambridge and 9.7 per 1,000 for the rural area as a whole, the provisional death rate for England and Wales being given as 11.8.

The reduction of the death rate on that for 1933 is largely accounted for by the light incidence of influenza, lower mortality from heart disease and bronchitis, which may in part be a consequence of the slight influenza prevalence, and an appreciable drop in the mortality from tuberculosis of the respiratory organs.

Infant Mortality.—The number of deaths under one year (Cambridge 31, Rural Districts 55, total 86) was in the proportion of 49 deaths per 1,000 live births, identical with the rate for 1933. The corresponding rate for England and Wales was 59 per 1,000 births. Cambridge had the low rate of 39 per 1,000, against 63 for the Great Towns, while the rural rate was 57 against 46 in the previous year.

There was very little change between the two years 1933 and 1934 in the extent to which different diseases contributed to the infant mortality rate. Deaths from respiratory diseases and from the common infections continued low, though there was a little increase in deaths from infantile diarrhoea. Deaths in the large congenital debility and premature birth group, dependent on pre-natal

conditions, which had risen from 45 per 1,000 births in 1932 to 55 in 1933, numbered 53 in 1934.

The rate for 1934 (49 deaths per thousand births) was below the annual average for the ten years ending 1935, viz., 51 per 1,000 births, and was again approximately 50 per cent. below the annual average of the ten years 1900-1909.

The following statement of deaths 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	...	735	37	43	93
Rural Districts	...	920	56	35	86
Whole County	...	1,655	48	78	90

But little importance can be attached to the figures for an individual year, and the record for 1934 follows an exceptionally low rate of 12 deaths per 1,000 illegitimate births in the previous year. The actual number of deaths of illegitimate infants was 7 (Cambridge 4, Rural Districts 3), among 78 born in the whole County (Cambridge 43, Rural Districts 35). Taken over a sufficiently long period of years the tendency is for these rates to decline, and it is evident that the handicap with which the illegitimate infant started life has been much lowered. If the average annual proportion of deaths per 1,000 illegitimate infants born in the five years ending 1934 be compared with the corresponding rates for the preceding five years 1925-1929, it will be seen that while the Cambridge rate rose from

63 to 68, the rural rate fell substantially from 89 to 66, resulting on balance in the very appreciable reduction from 77 to 64 in the Administrative County as a whole.

Maternal Mortality.—Deaths of women assigned to pregnancy or childbirth numbered 3 (Cambridge 1, Rural Districts 2), of which 1 was attributed to puerperal sepsis and two were assigned to other accidents and diseases of pregnancy and childbirth. This followed the exceptionally high number of 15 deaths in 1933 and the average number of 8 deaths which occurred in 1932, figures which afford an excellent example of the danger of drawing conclusions from the records of an individual year regarding the local incidence of causes of deaths which are subject to fluctuation.

Calculated for the year 1934 the death rates per 1,000 live births for the whole County are 0.58 from puerperal sepsis, 1.15 from other accidents, and 1.73 from all maternal causes, the comparable rates for England and Wales being 2.03, 2.57 and 4.60 respectively. If conclusions were drawn from the year 1934 alone it would therefore appear that this County had an exceptionally favourable record, just as the evidence of the year 1933 taken alone would suggest that the County occupied an exceptionally unfavourable position, neither of which conclusions would be correct.

Of the 6 notifications of puerperal sepsis received, 3 were from Cambridge and 3 from the Rural Districts, yielding a case rate of 0.4 per 1,000 of the population both for Cambridge and the Rural Districts, against 0.06 for England and Wales. If the more accurate method be used of basing the case rate on the total births (both live and still) the rates per 1,000 births are 3.8 for Cambridge, 3.0 for the Rural Districts, and 3.3 for the whole County,

against 4.0 for England and Wales, a satisfactory record, but for an individual year only.

Only one death was registered as due to puerperal sepsis, equivalent to 0.6 per 1,000 births for the Administrative County, against an annual average of 1.9 for the five preceding years 1929-1933.

Under the Puerperal Pyrexia Regulations 23 notifications were received, 13 in Cambridge and 10 in the rural area. The administrative arrangements made by the Maternity and Child Welfare Authorities, the Town and County Councils, still stand, and include bacteriological examination, expert clinical opinion, nursing and hospital treatment. Other measures dealing with maternal mortality generally are referred to in an earlier section of this report (Page 11).

Infectious Disease.—Summarising the experience of the year it may be said that a most satisfactory feature was the very low incidence of diphtheria and entire absence of deaths from that cause, and that while the County shared in the general prevalence of scarlet fever it caused few deaths. Influenza mortality was below the average, while that from pneumonia was somewhat above it. The diarrhoea rate among infants was above the average for recent years. The substantial reduction in the deaths from tuberculosis is a very satisfactory feature of the year's record.

Smallpox.—No case of smallpox was notified during the year. The following statistics of the administration of the Vaccination Acts show no improvement in the frequency which this sure measure of protection is sought by parents for the infant population.

	<i>Cambridge.</i>	<i>Rural.</i>	<i>Total.</i>
Births	884	876	1,760
Successful Vaccinations ...	188	251	439
Certificate of Insusceptibility ...	4	7	11
Statutory Declaration of Conscientious Objection	519	513	1,032
Died Unvaccinated	36	30	66
Postponed by Medical Certificate	10	8	18
Removed	9	11	20
Not found: in abeyance ...	118	56	174

Compared with the position in 1933, the percentage of successful vaccinations to births remained at 21 per cent. in Cambridge and fell from 31 to 28 per cent. in the rural area. Fortunately the persistent infection which prevailed over a large area of this country from 1927 has practically died out for the time being and was of a mild type, but should the virulent Oriental type get past the ports and gain a foothold in the country there can be no doubt as to the dangerous position in which this county would find itself, in common with other parts of the country. The success with which the Port Sanitary Service have protected the population from this danger, carries with it the disadvantage that the public are careless of their own share in their protection; the daily reminder conveyed by the facial disfigurement from smallpox once so common in this country would undoubtedly lead the female population to make full use of the protection afforded by vaccination. In the meantime no legislation has yet been introduced substituting a voluntary system of vaccination for the present so-called compulsory method, a proposal which was the subject of a supporting resolution passed by the County Council in 1932.

Scarlet Fever. Notifications numbered 441 (342 in 1933), of which 188 were from Cambridge and 253 from the Rural Districts, the increase on the previous year being in the rural area. The largest numbers of notifications were from Cambridge and the Chesterton Rural District adjoining. As in 1933, prevalence was considerably in excess of what might normally be expected from the experience of the previous ten years, during which an annual average of 290 notifications was received. The mild type continues. Four deaths occurred in 1934; the annual average for the ten preceding years did not exceed two.

Of the 441 recorded cases, 355, i.e. 80 per cent, were removed to isolation hospital compared with an annual average of 75 during the previous ten years.

No special reference to the Dick test is noted in the District annual reports.

Diphtheria. The year 1934 was one of phenomenally low incidence, only 14 notifications (Cambridge 6, Rural 8) being received and no deaths occurring. The case-rate per 1,000 of the population did not exceed 0.09, (Cambridge 0.08, Rural 0.11) compared with 1.70 for England and Wales. The annual average number of notifications received during the ten years ending 1933 was 131, deaths averaging 9 per annum. Exceptionally heavy incidence and mortality in the middle of this decade have been followed by a period of comparative freedom, which, though highly satisfactory, should not be regarded with too much complacency, as experience shows that the general downward trend is liable to serious interruption. The immunisation of the child population by the Schick method is therefore much to be advocated. Except at Papworth it is not in use

outside Cambridge, where the number immunised at the Clinic in 1934 was 319 against 165 in 1933, a considerable advance, but, as Dr. Laird states, still too small to prevent spread when the disease returns.

Of the 14 notified cases 10, or 71 per cent., were removed to hospital, compared with an annual average of 92 per cent. of cases removed during the past ten years.

Bacteriological diagnosis is in general use by the Local Sanitary Authorities and by both Local Education Authorities. Swabs to the number of 1,249 were taken in Cambridge, and swabs were also taken from school children in the County Education area. Antitoxin is provided by the Local Sanitary Authorities..

Enteric and Paratyphoid Fever.—The total number of notifications received was 12 (Cambridge 5, Rural 7), and 2 deaths occurred. The case-rate of notifications per 1,000 of the population was 0.08, that for England and Wales being 0.03 per 1,000. Of the Cambridge notifications 3 were of enteric fever; in 2 infection was definitely derived from outside the area, while in the third case it was impossible to trace the source of origin. Six of the seven notifications in Chesterton Rural District occurred among inmates of the County Mental Hospital, and the seventh, one of paratyphoid B, was admitted to Addenbrooke's Hospital.

Diarrhæal Diseases.—Eight deaths were recorded as due to this cause in children under two years, 3 in Cambridge and 5 in the rural area. The deaths per 1,000 live births were at the rate of 3.8 for Cambridge, 5.2 for the rural area, and 4.5 for the whole County, rates which com-

pare favourably with 7.4 for the Great Towns and 5.5 for England and Wales. Following on the exceptionally dry conditions which prevailed in 1933, the rainfall in Cambridgeshire in the hotter months was in 1934 substantially below the average. A quarter of a century ago a serious rise in the diarrhoea mortality rate among infants would confidently have been expected under such circumstances, but in fact only 12 deaths occurred during these two years of scanty rainfall. Comparisons spread over longer periods demonstrate more reliably the conclusion that this infective condition is no longer a grave danger to infant life. Compared with 8.8 per 1,000 births, the annual average mortality rate during the six years ending 1915, the annual rates of 1.9 and 2.0 deaths per 1,000 births for the successive five-yearly periods 1925-1929 and 1930-1934 sufficiently illustrate this point.

Whooping Cough.—As in the previous year, 5 deaths were recorded (Cambridge 3, Rural 2), the mortality rate being, as before, .03 per 1,000, as against 0.05 for England and Wales and 0.06 for the Great Towns. Nursing facilities are provided for whooping cough and measles under the maternity and child welfare schemes.

Measles.—Only one death (in Cambridge) was attributed to this cause.

Encephalitis Lethargica.—No notifications were received and 2 deaths were recorded from this cause, bringing the total number of notifications since 1919 (the first year of compulsory notification) to 74 and the recorded deaths to 53.

Cerebro-Spinal Meningitis.—The one case notified (in

Cambridge) was that of a school boy infected before arrival in this area and ended in a good recovery.

Acute Anterior Polio-myelitis.—One case only was notified (in Cambridge Borough), and ended in complete recovery. The special interest attached to this disease is the part which it plays in producing serious deformity which may be permanent. A low rate of incidence therefore implies that the number of cases requiring treatment at the orthopaedic centres in this important group will be small.

Ophthalmia Neonatorum.—No notifications were received either in Cambridge or the Rural Districts, and, as no cases required to be maintained in hospital by the Maternity and Child Welfare Authorities, this disease as a potential cause of blindness may be regarded for practical purposes as having been non-existent in the Administrative County during the year. During the preceding ten years ending 1933 not more than 57 cases (Cambridge 33, Rural Districts 24) were notified, of whom 3 from Cambridge and 5 from the rural area are recorded as having required admission to hospital as in-patients. The smallness of the number of cases of inflamed eyes for which midwives have summoned medical help, and the fact that there are on the County register of blind persons no children below five years of age confirm the view that ophthalmia in the newly born is ceasing to be a serious cause of blindness in this area.

Influenza.—Deaths to the number of 24 were recorded as due to this cause in the Administrative County (Cambridge 5, Rural Districts 19) against 139 (Cambridge 67, Rural Districts 72) in 1933. The mortality rates were

therefore low in 1934 following on a year of heavy mortality, a common experience. The annual average number of deaths from this cause during the past ten years has been approximately 58 for the whole County, the actual number of deaths during that period having been 576. As much of this loss of life is preventable with common-sense precautions, the influenza mortality rate should be substantially reduced through a better acquaintance by the general public with the facts, and the public education on this point which was continued during the year by the Rural Community Council should therefore be of real value.

Pneumonia.—The number of notifications of acute primary and influenzal pneumonia in Cambridge was 29 and in the rural area 39, a total of 68 for the Administrative County, against 88 in 1933. Deaths from pneumonia numbered 75 against 60 in 1933, and of these 37 occurred in Cambridge and 38 in the rural area, yielding mortality rates of 0.52 per 1,000 for the whole County, 0.50 for Cambridge, and 0.52 for the rural area, against 0.61, 0.49 and 0.72 respectively in 1933. Pneumonia has been the recorded cause of 657 deaths during the past ten years, an approximate average of 66 deaths per annum, yielding a mortality rate of 0.05 per 1,000 for the Administrative County. Influenza and pneumonia together caused 1,233 deaths in ten years and accounted for the substantial proportion of one-thirteenth of the total deaths from all causes. The observations made under the heading of influenza regarding the value of public education apply also to pneumonia.

Pulmonary Tuberculosis.—The total number of pulmonary cases coming to knowledge during the year, whether by notification or otherwise, was 87 (108 in 1933). The

49 deaths registered from this cause represents a substantial decline on 77 in 1933, even after allowing for the prevalence of influenza in the latter year. In Cambridge Borough there were 22 deaths, compared with 34 in 1933, while 27 deaths were registered in the rural area against 43 in the previous year. The mortality rates per 1,000 living were 0.33 in the Administrative County (England and Waes 0.63), 0.30 in Cambridge and 0.37 in the rural area, compared with 0.53, 0.49 and 0.57 respectively in 1933. The local crude rates were thus substantially below that for the country as a whole and the local rates for the previous year. Deaths during the ten years ending 1934 averaged 81 per annum, compared with 122 during the first ten years of this century (1900-1909), when the population was 17 per cent. smaller.

Tuberculosis of other Organs.—Total cases coming to knowledge during the year, whether by notification or otherwise, numbered 35 (36 in 1933). There were 14 deaths against 13 in 1933, and of these 5 occurred in Cambridge and 9 in the rural area. The mortality rates per 1,000 living were as follows:—Administrative County 0.09 (0.09 in 1933), Cambridge 0.07 (0.06 in 1933) and Rural Districts 0.12 (0.12 in 1933). Deaths under this heading averaged 16 per annum during the ten years ending 1934, compared with 44 per annum during the ten years 1900-1909.

During 1934 the total deaths in the Administrative County from tuberculosis of all organs numbered 63, of which 27 were recorded in Cambridge and 36 in the rural area. These yield mortality rates of 0.43, 0.37 and 0.49 per 1,000, against 0.62, 0.55 and 0.69 respectively in 1933.

Cancer.—There were 248 deaths attributed to cancer against 253 in 1933 and 235 in 1932. Of these, 123 occurred

in Cambridge and 125 in the rural area. The proportion of recorded deaths per 1,000 living was 1.70 in the Administrative County, 1.68 in Cambridge and 1.73 in the rural area, against 1.76, 1.77 and 1.75 respectively in 1933. The crude death-rate for the whole County thus, as usual, compares unfavourably with that calculated provisionally by the Registrar-General for England and Wales, viz., 1.56 per 1,000.

Deaths from cancer caused as much as 15 per cent. of the total deaths and were again only exceeded in number by one other defined cause, viz., heart disease. While variations from year to year may not be important, the general trend of cancer mortality is obviously of great consequence and comparisons over a long period of years are decidedly of value. During the five years ending 1934 the number of deaths per annum in Cambridgeshire has averaged 231, ranging from 218 in 1930 to 253 in 1933. The lowest rate within this period was 1.63 in 1930 and the highest 1.79 in 1931, compared with the annual average rate of 1.71 during the five years. This illustrates the variation from year to year, but for estimation of progress comparison with the recorded mortality at the beginning of this century affords valuable results. The annual average rate during the five-yearly period 1900-1904 was 0.95 per 1,000, and on this the comparable figure (1.71) for the five years just ended shews an increase in recorded deaths from cancer of as much as 80 per cent. The one hopeful feature to be noted in the statistics of recent years is that the rate of increase appears to be slackening, that for the five years ending 1934 being 1.2 per cent. higher than that for the five years ending 1929, against a percentage increase of 7.0 in 1925-1929 on 1920-1924.

At Addenbrooke's Hospital, Cambridge, facilities for the examination of pathological specimens are available for diagnosis, and treatment by X-rays or radium is provided. In view of the imperative need for diagnosis and treatment at the earliest possible date, the provision of public education on these points and on the facilities available is an obvious necessity. Such education is being provided both by the County Council and by the Rural Community Council (see the section on Health Education).

Cirrhosis of the Liver.—In the absence of accurate information as to the number of deaths due to alcohol, the deaths from cirrhosis of the liver are of value as an indication if compared over a period of years. In 1931, the number of deaths recorded (9) was the same as in 1933, higher than the annual average of 5 for the five years ending 1933. As the annual average for the ten years 1911-1920 was 13, and that for the five years ending 1928 was 7.4, it will be seen that there has been a temporary check in the progressive decline in recorded deaths from this cause which has been going on for more than twenty years. The figures are, however, small, and too much importance should not, therefore, be attached to them.

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County Medical Officer of Health.

FRANK ROBINSON,

Late County Medical Officer of Health.

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Castle Hill,
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TABLE II.

VITAL STATISTICS OF COUNTY FOR 1934 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>No. Births.</i>	<i>Rate per 1000</i>	<i>No.</i>	<i>Rate.</i>
1929 BR	133540	1763	13.2	81	46	1797	13.5
DR	133310						
1930 BR	133540	1854	13.9	77	41	1507	11.4
DR	133310						
1931 BR	139990	1829	13.1	84	46	1671	11.9
DR	139750						
1932	142200	1777	12.5	69	39	1653	11.6
1933	143780	1704	11.8	83	49	1847	12.8
1934	145190	1733	11.2	86	49	1620	11.2

BR indicates population for calculating Birth Rate.

DR " " " Death Rate.

