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Gloucestershire County Council

ANNUAL REPORT

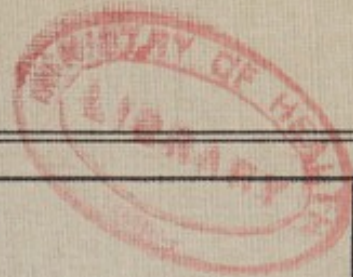
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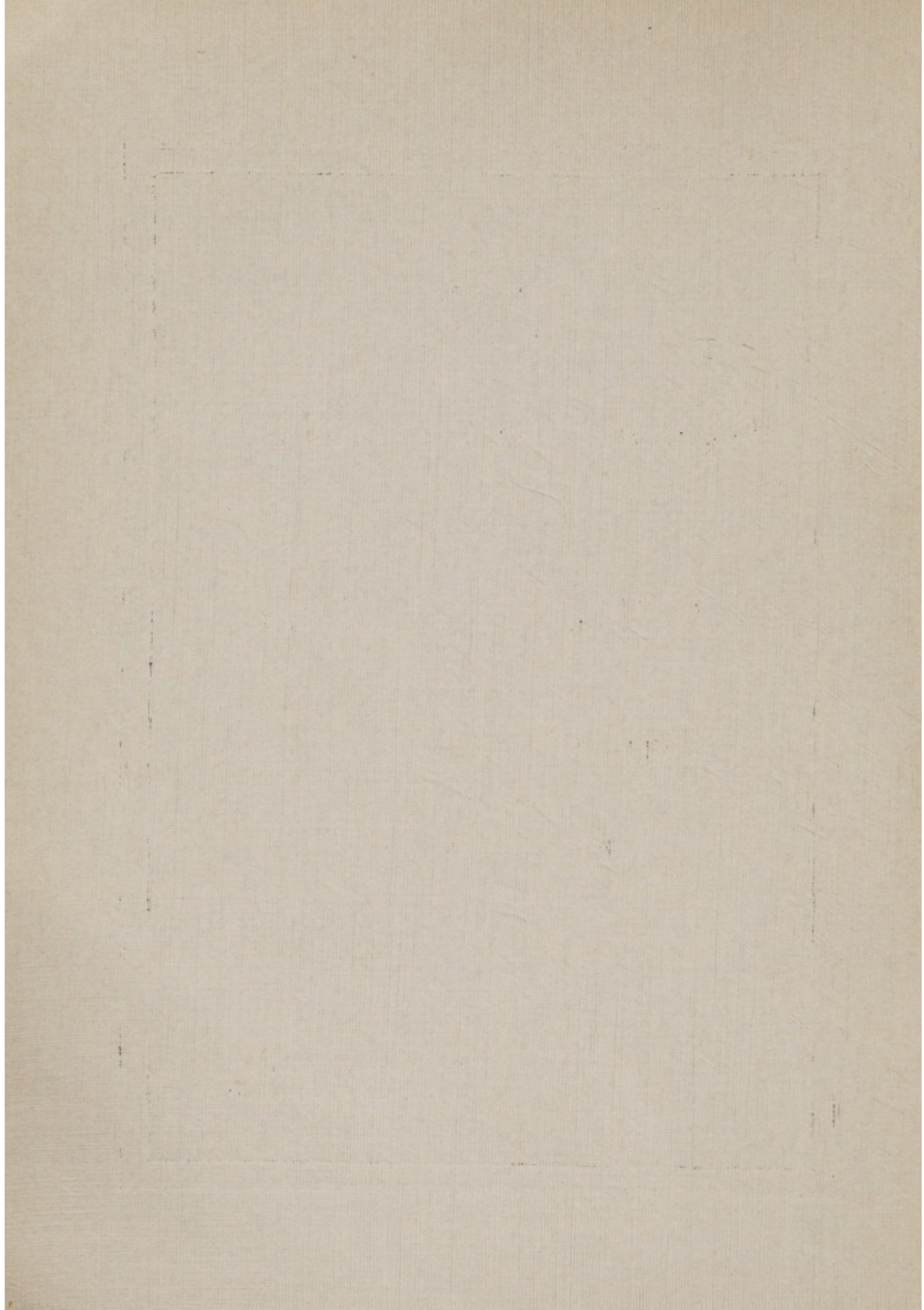
COUNTY MEDICAL OFFICER OF  
HEALTH

FOR THE YEAR 1937

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H. KENNETH COWAN  
County Medical Officer of Health







Gloucestershire County Council

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SHIRE HALL,  
GLOUCESTER,  
May, 1938.

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

Madam Chairman, Ladies and Gentlemen,

I have the honour to present my Annual Report on the Health of the County for the year 1937.

I took over duties from my predecessor on 18th August and much of the matter dealt with in the report relates, therefore, to the period prior to my taking office.

The vital statistics for the year are generally satisfactory, although there has been a slight increase in the Death Rate from 13.3 in 1936 to 13.5 for the year under review. There has again been some recovery in the Birth Rate, the figure now standing at 14.9 per 1,000 of the population as compared with 14.5 in 1936. The Infantile Mortality Rate is identical with that of last year, viz. :— 45 per 1,000 live births, and compares very favourably with the rate for England and Wales which is 58.

The returns of infectious diseases received during the year show that there has been an increase in the number of cases of Diphtheria and of Scarlet Fever. In certain areas of the County arrangements are in force to provide artificial immunization against Diphtheria and it is hoped that it may be possible in the near future to extend the existing facilities and to introduce similar measures into other areas of the County.

Certain extensions of the Maternity Services were sanctioned during the latter part of the year. These included the provision of emergency outfits for the use of Doctors and Consultants, the addition of a post natal examination to the present arrangements for ante natal examinations, the provision of sterilized dressings in necessitous cases and home helps in certain areas. These additional facilities will add materially to the usefulness of the Maternity Services.

The County Council Maternity Hospital at Tetbury was re-opened in August, and the accommodation now includes a ward of six beds for ante natal treatment and two single rooms for paying patients, where the patients may be attended by their own Doctors.

The report has been divided into sections each dealing with particular branches of the work. The section on Maternity and Child Welfare is the work of Dr. Morris Jones and that on the general sanitary circumstances has been compiled by Dr. Lishman who commenced duties in April, 1938.

I should like to express my thanks to all the members of the staff for their help and co-operation during the period of making myself familiar with local conditions, and I have also appreciated greatly the kindness and consideration afforded to me by members of the Committee in connection with every branch of the work.

I have the honour to be,

Your obedient servant,

H. KENNETH COWAN,  
*County Medical Officer of Health.*



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# STAFF

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COUNTY MEDICAL OFFICER OF HEALTH AND SCHOOL MEDICAL OFFICER :

H. KENNETH COWAN, M.D., D.P.H.

TUBERCULOSIS OFFICERS (Jointly with City of Gloucester) :

W. ARNOTT DICKSON, M.D., M.R.C.P., F.R.C.S., D.P.H. (also Medical Superintendent Standish House Sanatorium).

E. D. D. DAVIES, M.R.C.S., L.R.C.P., D.P.H.

F. H. WOOLLEY, M.R.C.S., L.R.C.P., L.D.S.

MATERNITY AND CHILD WELFARE MEDICAL OFFICER :

E. CATHERINE MORRIS JONES, M.B., B.S., D.P.H.

ASSISTANT MEDICAL OFFICERS :

T. F. H. BLAKE, L.R.C.P., L.R.C.S., D.P.H.

ISABEL R. GORDON, M.B., Ch.B., D.P.H.

H. F. W. ADAMS, M.B., Ch.B., D.P.H.

R. GREEN, M.D., D.P.H.

S. KNIGHT, M.B., B.S., M.R.C.S., D.P.H.

(Appointed 1st April, 1937).

T. RHIND, M.R.C.S., L.R.C.P., D.P.H.

M. L. SUTCLIFFE, M.R.C.S., L.R.C.P., D.P.H.

(Appointed 1st April, 1937).

Also District Medical  
Officers of Health.

DENTAL SURGEONS :

AGNES M. BOAL, L.D.S.

MARY M. CLERKE, B.D.S.

P. J. WAKLEY, L.D.S.

B. F. WREN, L.D.S.

## COUNTY HEALTH SUPERINTENDENTS :

Mrs. V. M. BAUSOR.  
 Mrs. I. V. LADD.  
 Mrs. F. E. LYNE.  
 Miss J. I. McLAUCHLAN.  
 Miss E. MASON.  
 Miss D. K. PALIN.  
 Miss M. S. PAYNE.

## HEALTH VISITORS :

Miss R. CARTER (temporary appointment terminated December, 1937).  
 Miss E. V. HOWSE.  
 Miss E. N. JAMES.  
 Miss A. SOMERFIELD.  
 Mrs. P. E. WATKINS.  
 Mrs. L. WRIGHT.  
 DISTRICT NURSES (137 part time).

## ORTHOPAEDIC NURSES :

Miss E. G. BOWDEN.  
 Miss D. A. RODENHURST.  
 Miss J. SHEPHERD.

## DENTAL ATTENDANTS :

Miss W. FREEMAN (appointed 1st December, 1937).  
 Miss M. HUNT.  
 Miss A. G. POWELL.  
 Miss W. H. ROBERTS.  
 Mrs. E. E. WITCHELL (deceased 14th September, 1937).

## REPORT

## SECTION A.

## STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

## Area (in acres):—

Urban	...	...	...	...	...	...	24,179
Rural	...	...	...	...	...	...	749,821
							<hr/>
							774,000
							<hr/>

## Population:—

## Registrar General's Estimate mid 1937:

Urban	...	...	...	...	...	115,400
Rural	...	...	...	...	...	223,600
						<hr/>
						339,000

## Census 1931:

Urban	...	...	...	...	...	108,662
Rural	...	...	...	...	...	222,037
						<hr/>
						330,699

Rateable Value	...	...	...	...	...	£1,664,947
Sum represented by a penny rate	...	...	...	...	...	£6,672 19s. 9d.

## Extracts from Vital Statistics of the year (whole County):

			<i>Total</i>	<i>Males</i>	<i>Females</i>
Live Births—Legitimate	...	...	4,857	2,504	2,353
Illegitimate	...	...	204	103	101
Birth Rate per 1,000 of population	...	...	...	...	14.9
Still births	... 215	Rate per 1,000 total births	...	...	42.5
Deaths ...	... 4,582	Death Rate	...	...	13.5

## Deaths from Puerperal Causes:—

			<i>Deaths</i>	<i>Rate per 1,000 total births</i>
Puerperal sepsis	...	...	4	0.7
Other puerperal causes	...	...	9	1.7
<b>Total</b>			<hr/> <b>13</b>	<hr/> <b>2.54</b>

## Death Rate of Infants under one year of age:—

All infants per 1,000 live births	...	...	...	45
Legitimate infants per 1,000 legitimate live births	...	...	...	44
Illegitimate infants per 1,000 illegitimate live births	...	...	...	59
Deaths from Cancer (all ages)	...	...	...	599
Measles (all ages)	...	...	...	7
Whooping Cough (all ages)	...	...	...	13
Diarrhoea (under 2 years of age)	...	...	...	19

### Birth Rate.

The Birth Rate for the year 1937 shows a slight increase upon that for the previous year—14.9 per 1,000 of the population in comparison with 14.5 in 1936. The increase in the County rate is due entirely to an increased rural birth rate as the birth rate in the urban areas showed a decrease. The natural increase in the population of the County now stands at a figure of 1.4 per 1,000 of the population, and further reductions in the birth rate or increase in the death rate will soon lead to a natural decrease in the County population taking the place of the normal natural increase.

Of the recorded births 2,607 were males and 2,454 were females, the ratio of male to female births being 106.2 to 100.

	1933	1934	1935	1936	1937
Urban ... ..	12.4	12.6	13.5	14.1	13.8
Rural ... ..	13.8	14.5	15.2	14.7	15.5
Administrative County ...	13.4	13.8	14.5	14.5	14.9
England and Wales ...	14.4	14.8	14.7	14.8	14.9

### Death Rate.

The Death Rate for the County for the year is 13.5 which is a slight increase on the rate for last year which was 13.3.

The total number of deaths in the County during 1937 was 4,582 and the seven chief causes of death with the corresponding percentages of total deaths were as follows:—

Heart Disease ... ..	27.7
Cancer ... ..	13.1
Other Circulatory Diseases ... ..	6.7
Cerebral Haemorrhage ... ..	5.5
Pneumonia ... ..	4.0
Senility ... ..	3.9
Influenza ... ..	3.9

There has been an increase both in the number of deaths from heart disease in comparison with last year, and in the percentage in relation to the total number of deaths. The death rate from this cause has shown a steady advance year by year in the records of the County and is now almost two and a half times as great as the average death rate from heart disease in the second decennium of this century.

The number of deaths from cancer is almost identical with that of last year, but there has been a slight decrease in the percentage relative to the total number of deaths.

The main bulk of the deaths in the County result from heart disease, and diseases of the circulatory system, these together being responsible for more

than one third of the deaths. The age incidence, however, is advanced and the greatest preponderance of deaths from these causes occurs in age groups over 55 years. In the case of heart disease 600 of the total number (1,269 deaths) occurred at age 75 or over.

Table of the Seven Chief Causes of Death.

The seven chief causes of death	Urban		Rural		Whole County		Percentage of total deaths		
	No.	Rate	No.	Rate	No.	Rate	U.	R.	Whole Cty.
Heart Disease ...	442	3.83	827	3.70	1269	3.74	27.0	28.1	27.70
Cancer ... ..	216	1.90	383	1.71	599	1.80	13.70	13.0	13.10
Other Circulatory Diseases	99	.86	206	.92	305	.90	6.04	7.0	6.70
Cerebral Haemorrhage	81	.70	172	.77	253	.75	4.94	5.90	5.50
Pneumonia ... ..	73	.63	110	.50	183	.54	4.45	3.73	4.00
Senility ... ..	85	.74	96	.43	181	.53	5.18	3.26	3.95
Influenza ... ..	48	.42	131	.59	179	.53	2.92	4.45	3.90

#### Infantile Mortality.

The Infant Mortality Rate for the County for 1937 is 45 which is identical with the figure recorded last year. The rate for England and Wales for the same period is 58.

Year	Urban		Rural		Whole County		Rate for England and Wales
	No.	Rate	No.	Rate	No.	Rate	
1933	74	52	143	46	217	48	64
1934	80	56	152	47	232	50	59
1935	58	41	128	38	186	39	57
1936	70	44	152	46	222	45	59
1937	81	59	146	42	227	45	58

### Social Conditions of the County.

The area of the County of Gloucester is 774,000 acres distributed between Urban Districts 24,179 acres and Rural Districts 749,821 acres.

There are in the County two County Boroughs the City of Bristol and the City of Gloucester. The remainder of the County comprises two Municipal Boroughs, Cheltenham and Tewkesbury, six Urban Districts and fifteen Rural Districts.

The population of the County as estimated by the Registrar General mid-1937 is 339,000. The growth of the population in the South of the County has been accelerated through fresh industrial developments in areas adjacent to Bristol and there has been remarkable activity in building of houses to accommodate the population who wish to reside in the vicinity of the factories where they work.

It is difficult to estimate with accuracy the growth of the population in this area, but for a period houses were being completed at the rate of fifty per week and the rural character of the country is rapidly changing to that of a large urban area. The problems arising from this rapid influx of population in relation to personal and environmental health services are being dealt with as rapidly as possible and schemes for the provision of clinics and child welfare centres and for sewerage and sewage disposal have been prepared or already put into operation.

The main occupations of workers in the administrative county according to the census returns 1931 are as follows:—

	<i>Males</i>	<i>Females</i>
Agricultural Occupations ... ..	22,926	813
Mining and Quarrying ... ..	7,409	2
Metal Workers (not electro plate or precious metals) ... ..	8,061	119
Makers of Textile goods and articles of dress ...	3,154	3,570
Textile Workers ... ..	988	1,601
Makers of Food, Drinks and Tobacco ...	1,996	471
Workers in wood and furniture ... ..	4,444	142
Builders, Bricklayers, Stone and Slate Workers, Contractors ... ..	7,610	5
Painters and Decorators ... ..	1,962	33
Employed on Transport and Communications	10,841	451
Commercial Finance and Insurance Occupations (excluding clerks) ... ..	9,934	4,121
Professional Occupations (excluding clerical staff) ... ..	3,059	3,889
Clerks and Draughtsmen, Typists ... ..	3,562	2,607
Engaged in Personal Service (including Institutions, Clubs, Hotels, etc.) ... ..	3,470	20,245
Retired or not gainfully occupied ... ..	15,347	99,576

The population of the County is thus divided occupationally into three main categories, Industrial, Agricultural and Mining, with a marked preponderance of Industrial and Agricultural workers. The establishment of new factories in

the County is tending to add further to the numbers of industrial workers and there is now probably a higher proportion of the population engaged in industrial occupations than the above figures from the 1931 census indicate.

In conjunction with the rest of the Country there has been some recovery from the prolonged trade depression, but the unemployment figures indicate that certain areas of the County are still backward in this respect.

In so far as it is possible to judge from the returns of medical inspection in the schools and from tuberculosis and other notifications there is no indication of a lowering of the standards of general health of the population of the County as a result of the depression, and its accompanying reduced standard of living. It may be that the activities of local authorities towards securing better living conditions for the people, the provision of additional personal health services and a greater knowledge amongst individuals of the rules of healthy living have had a part in counteracting any tendency to a lowering of the standards of health.

## SECTION B.

### GENERAL PROVISION OF HEALTH SERVICES FOR THE AREA.

#### 1. Laboratory Facilities.

Bacteriological and Pathological work is carried out by the Pathologists at the Gloucester Royal Infirmary, Cheltenham General Hospital and at the Bristol University Laboratory.

The following is a summary of the work undertaken during the year:—

						<i>No. of examinations</i>
<i>General :</i>						
Tuberculosis	...	...	...	...	...	2,532
Diphtheria	...	...	...	...	...	3,576
<i>Enteric Fever :</i>						
Bloods	...	...	...	...	...	194
Faeces and urine	...	...	...	...	...	21
Cerebro Spinal Fever	...	...	...	...	...	5
Puerperal Pyrexia	...	...	...	...	...	1
Other	...	...	...	...	...	15
<b>TOTAL</b>					...	<b>6,344</b>
<i>Venereal Diseases :</i>						
Wasserman	...	...	...	...	...	551
Smears	...	...	...	...	...	372
Other	...	...	...	...	...	106
<b>TOTAL</b>					...	<b>1,029</b>
<b>GRAND TOTAL</b>					...	<b>7,373</b>

Under the present arrangement with the hospital and university laboratories, payment is made on the basis of a fee for each specimen examined and in



certain cases previous approval for the examination must be obtained by the practitioners submitting the sample. This system gives rise to difficulties and delays in examinations, and it is hoped that it may be possible next year to make alternative arrangements which will obviate this trouble.

Arrangements are in force for the examination of samples of milk at the laboratories in the County, but although the hospital laboratories are equipped to undertake these examinations, relatively few samples are sent for examination. In order to secure a more even distribution of samples in the future, it is hoped that the collection of samples of milk will be arranged in areas to correspond with the areas served by the various laboratories for other purposes.

Samples of water and sewage effluents are examined when required by Mr. R. H. Ellis, the County Analyst.

## 2. Ambulance Facilities.

### (a) *Infectious Diseases.*

Eight ambulances are available in the County for the conveyance of cases of infectious diseases to Isolation Hospitals. Six of the eight ambulances are stationed at Isolation Hospitals and the others are conveniently stationed for the districts they serve.

### (b) *Non-Infectious and Accident Cases.*

The County appears to be fairly well served by ambulances for non-infectious and accident cases, but a survey of all ambulance facilities will be undertaken early next year with a view to ascertaining the exact position in each area of the County.

## 3. Nursing in the Home.

Domiciliary nursing services in the County are undertaken by the County Nursing Association and grants have been made in the past from the Public Assistance Committee for the nursing of the sick poor. These grants will, in the future, be made under Section 178 Public Health Act, 1936.

Arrangements are also in force for the nursing of cases of measles in their own homes during epidemics or when circumstances appear to justify it. This work is undertaken by the district nurses upon request from doctors and patients or from the health department.

The work of the district nurse midwives is dealt with in the maternity and child welfare section of this report.

## 4. Treatment Centres and Clinics.

There are eighteen centres in the County where the treatment of minor ailments amongst school children is carried out. Certain of these clinics are also used by the specialist medical staff for consultations and treatment concerning ear, nose and throat, eye and orthopaedic conditions.

There have been no changes during the year in the numbers of clinics, but the growth of the population in the South of the County has led to the formulation of plans for a new Health Centre at Filton, and for the enlargement of the existing premises at Soundwell.

It is hoped that it may be possible to commence work on these projects next year. The centre at Filton will comprise a school clinic and infant welfare centre, and will be used also as a dental clinic, an ophthalmic and ear, nose and throat clinic, and for orthopaedic outpatients. The enlargement of the premises at Soundwell will enable them to be used as an infant welfare centre in addition to affording better facilities for other services.

#### *Orthopaedic Treatment.*

The arrangements which are in force in the County for orthopaedic treatment include outpatient treatment at clinics, and in certain cases at the patients' own homes, inpatient treatment for short stay cases at the General and Children's Hospitals in Gloucester and Cheltenham, and for long stay cases at Winford Orthopaedic Hospital, Somerset, and the Wingfield Morris Hospital, Oxford.

Cases of surgical tuberculosis receive inpatient treatment at Standish House Sanatorium, where there is a surgical block of thirty-eight beds and at Cheltenham General Hospital where accommodation for twelve patients is provided.

In so far as is possible with the present arrangements continuity in treatment is provided for, but with the variety of centres for outpatient treatment and the dispersion of facilities for inpatient treatment it is difficult to secure complete continuity for more than a proportion of the patients. The advantages of adequate team work which form so essential a feature of successful orthopaedic treatment, are not therefore available.

After care of patients is undertaken at the various clinics in the County where they attend for treatment and supervision subsequent to discharge from hospital. This treatment is carried out, under the supervision of the Orthopaedic Surgeons, and by three whole-time Orthopaedic Nurses who are specially qualified and experienced. Where necessary treatment is also carried out by these nurses in the homes of the patients.

All outpatient treatment is undertaken free of charge to the patients, but contributions towards the cost of maintenance in hospital are required to be made according to the capacity of the patient to pay as assessed on a scale laid down by the appropriate Committee. Surgical appliances and repairs to apparatus are granted free up to a maximum of one guinea. For apparatus supplied at a greater cost contributions are required on a similar basis to that which applies in the case of inpatient treatment.

The actual number of cases under review during the year was 1,050. The reports on the work during the year by the Orthopaedic Surgeons are as follows:—

#### BRISTOL AREA—Dr. ETHEL M. REDMAN.

It gives me pleasure to report that treatment at the Orthopaedic Out Stations of Soundwell, Chipping Sodbury, and Thornbury has proceeded steadily during the past year. 62 boys and 77 girls have attended. The paralytic cases number 13, 10 of which were suffering from the results of infantile paralysis. There were five cases of active rickets. Bow legs, knock knees, flat feet and the like deformities of rickets and the atonic child totalled 69. Cases of curvature of the spine numbered 27; hip troubles 3; Congenital deformities of cleft palate, torticollis, spinabifida, 6. There were two cases of old osteomyelitis.

Five children attended for examination when nothing orthopaedically abnormal was found to be troubling them.

*Cases for Hospital treatment.*

During the past year four cases were admitted to the Bristol Royal Infirmary for treatment and have benefited much thereby. Seven children were admitted to Winford Orthopaedic Hospital for prolonged treatment. One was a case of poor posture, flat feet and knock knees; another a scoliosis due to a congenital defect of the spine; two boys suffered from spastic paralysis; one had a congenital club foot; another small boy had a spinal scoliosis of unknown origin, and there was a case of cleido-cranial dysostosis with congenital dislocation of the hips. Three children who were admitted during the previous year suffering from infantile paralysis continued treatment. Three cases of rheumatic heart disease were also admitted to Winford Orthopaedic Hospital and one case continued treatment from the previous year.

I have to thank Miss Shepherd for all her care and skill in carrying out treatment at the outstations and also to thank the masseuse of the Winford Orthopaedic Hospital for all her untiring efforts with those who came under her care as inpatients.

CHELTENHAM AREA—Mr. J. S. ROBINSON.

The Orthopaedic work in my area of the County has been carried out as before, quarterly visits being paid to Cirencester, Stroud, Fairford, Tewkesbury and Campden.

On the whole the attendances have maintained a fairly steady average throughout the year; the numbers have been more or less constant. There have not been any epidemic outbreaks of Infantile Paralysis in the past year, and it is satisfactory to record that on the whole good progress has been made following remedial treatment in all cases of this nature which occurred during the previous year. It may be helpful to emphasise the importance of recognising mild types of this disease which are met with. "Influenza" attacks, or so called chills, may be followed by slight weakness of the muscles of an arm or leg to which little importance may be attached at the time. This special plea is for the recognition of such cases lest they may require splintage or postural treatment. Early treatment of this nature may be the means of preventing certain deformities and will enable the affected muscles to regain their maximum power and function.

The number of feet and leg conditions treated are marked, but early attention to flat feet, knock knees, etc., brings its own reward. In certain cases of bow-legs and knock knees, suitable splints, which the child wears as it walks about, have a markedly beneficial effect, and as a rule are well tolerated by the patient. Remedial treatment for flat feet, postural and other spinal curvatures have been of definite value, more especially when it is possible to form small classes where an intelligent child helps its less fortunate brothers and sisters. The improvement in the general health of the children is quite apparent in the large majority of cases following remedial treatment—a pointer in the official campaign for physical fitness.

*The analysis of cases treated.*

The total number of cases treated during the year at the various hospitals and out-stations was 441—214 boys and 227 girls—the sex incidence being nearly the same.

	<i>Boys</i>	<i>Girls</i>
Under the age of 2 years ... ..	14	16
"  "  "  "  5  "  ... ..	59	54
"  "  "  "  10  "  ... ..	154	114
<i>Deformity of Feet :</i>	<i>Boys</i>	<i>Girls</i>
Flat Foot ... ..	71	81
Club Foot ... ..	13	3
Claw Foot ... ..	3	7
<i>Rickety Deformities :</i>		
Knock Knees ... ..	37	21
Bow Legs ... ..	17	13
Infantile Paralysis ... ..	18	11
Spine—Scoliosis ... ..	10	24
Congenital dislocation of the hip ... ..	7 cases	
Torticollis ... ..	8 cases	

*Inpatient Hospital treatment.*

Nineteen patients were treated at the Cheltenham General and Eye Hospitals during the year, and various operative procedures were carried out, while others were given remedial treatment following operations or apart from them, club feet were corrected and put in plaster or in special splints which are taking the place of plaster fixation; this method allows better muscular development of the legs, a most desirable consideration. Ultra violet treatment was given to those cases who required it with definite benefit.

In conclusion, as usual it gives me much pleasure to express my thanks to our Orthopaedic Nurses for their care and skill in this work. The value of their work impresses itself on me more each year. Valued help has been given by Members of certain V.A. Detachments to whom I tender my best thanks. To the Nurses and the Massage Staff of the Cheltenham General and Eye Hospitals I express my thanks for their kind help as I also do to the various Matrons and Nurses at the Hospitals and Out-stations.

## GLOUCESTER AREA—Mr. J. F. H. STALLMAN.

The work done during the past year has followed the same general lines as in previous years. The number of children treated is approximately the same as last year, 209 boys and 216 girls, showing only a slight increase of five boys and six girls.

*Summary of Main Cases.*

<i>Conditions</i>	<i>Boys</i>	<i>Girls</i>
Paralytic :		
Infantile paralysis ... ..	5	10
Others ... ..	15	15

<i>Conditions</i>						<i>Boys</i>	<i>Girls</i>
<b>Spinal :</b>							
Scoliosis	...	...	...	...	...	9	14
Others	...	...	...	...	...	2	9
<b>Hip Joints :</b>							
Congenital dislocation	...	...	...	...	...	1	2
Perthe's disease	...	...	...	...	...	1	—
Coxa vara	...	...	...	...	...	—	1
Others	...	...	...	...	...	—	1
<b>Feet :</b>							
Flat foot	...	...	...	...	...	55	106
Pes cavus	...	...	...	...	...	10	8
Hammer toes	...	...	...	...	...	9	12
<b>Rickety deformities :</b>							
Knock knees	...	...	...	...	...	25	22
Bow legs	...	...	...	...	...	18	13
<b>Congenital deformities :</b>							
Hare lip and cleft palate	...	...	...	...	...	2	—
Torticollis	...	...	...	...	...	4	4
Spina bifida	...	...	...	...	...	—	2
Club foot	...	...	...	...	...	13	4
Fractures	...	...	...	...	...	8	2

The majority of cases consisted of static deformities, particularly flat foot. There is a tendency now not to regard flat foot in itself as a static deformity, since the arch of the foot should naturally flatten on standing, but should be capable of being raised at will, that is the foot should be resilient. It is the inelastic flat foot which gives rise to symptoms and requires treatment. Treatment of postural deformities has shown satisfactory results.

There has been no outbreak of anterior poliomyelitis. Cases of infantile paralysis treated have shown satisfactory improvement; numbers of these cases, and also of Little's disease, would be benefited by institutional treatment, where they could obtain education at the same time. Owing to their deformities, numbers of these children are unable to attend the ordinary elementary schools on account of the distance they have to travel to and from the school, and in cases of Little's disease some of these children are mentally not suitable for ordinary schools, and even if they are, their deformities sometimes render them objects of ridicule amongst their schoolfellows, which is not conducive to the success of their treatment or to their intellectual development. These children are, therefore, handicapped in after life, and it is difficult to find employment suitable to their conditions.

There have been seven admissions to the Royal Infirmary and 16 to the Children's Hospital. The operations consisted mainly of manipulations, fasciotomies, plasters, and the correction of slight deformities. Operations for stabilising paralytic feet have given good results, and operations on nerves and muscles in cases of Little's disease have given very gratifying results in this very difficult

condition to treat. Operations on cases of Little's disease are only a means to an end, and very prolonged after treatment is required. One case of dislocation of the hip has remained in hospital throughout the year owing to adverse home conditions.

As I anticipated, Miss Fraser, the local Organiser of the Central Council for the After Care of Cripples has proved most helpful in finding employment and obtaining training facilities for several cases.

I have again to thank the Orthopaedic Nurses for their invaluable assistance and unfailing enthusiasm, and the Staffs of the Royal Infirmary, the Lydney and Berkeley Hospitals for their skilful help. I should also like to express my appreciation of the ungrudging assistance of the members of the Voluntary Aid Detachments.

## 5. Hospitals.

### *Tetbury Maternity Hospital.*

In August, 1937, the Maternity Hospital at Tetbury was re-opened and accommodation is now provided there for sixteen maternity patients and eight children. One of the general wards was converted into two single bed rooms, and is available for patients who are in a position to pay a full fee for such accommodation.

An ante natal ward with six beds is included and the children's ward is equipped for the reception of patients up to the age of eight years.

### *Isolation Hospitals.*

As stated in previous reports the scheme of the County Council under Section 63 of the Local Government Act, 1929, was approved by the Ministry of Health, but certain districts in the Delancey Hospital area were omitted. The Ministry issued a sealed scheme in March, 1937, in spite of a protest from the County Council, and it has not been possible to take any action to implement this Scheme.

Alternative proposals have been prepared, and informal discussions have taken place but, as yet, no definite conclusion has been reached. It is hoped in the early future to evolve a scheme which will meet with general approval and provide for adequate accommodation for the treatment of infectious diseases in the County.

### *Public Assistance Institutions.*

A comprehensive survey of the institutional accommodation in the Administrative County has been undertaken by the Public Assistance Officer, and proposals have been made with regard to future policy. The developments foreshadowed include new institutional accommodation for general patients and classified provision for specialised cases, for the aged and for children.

It is anticipated that action will be commenced early next year to give effect to certain of the suggestions made but no major developments have taken place during 1937.

## 6. Poor Law Medical Out-Relief.

The constitution of the Medical Out-relief districts remained the same in 1937.

The following changes in the medical staff took place:—

### *Cheltenham District :*

Dr. A. B. Wallace succeeded Dr. A. Emlyn.

Dr. E. S. Waddington succeeded Dr. D. W. J. Andrews.

### *Sodbury District :*

Dr. R. K. Brooks succeeded Dr. P. L. Moore.

### *Lydney District :*

Dr. R. M. McMinn succeeded Dr. J. W. Crichton.

## 7. Vaccination.

The districts of the Public Vaccinators in the County total 64, and those of the Vaccination Officers number 25.

The summary of the returns of the Vaccination Officers for the past five years is as follows:—

	1932	1933	1934	1935	1936
No. of Births ... ..	4,482	4,275	4,405	4,480	4,321
No. of Vaccinations ...	676	576	567	546	541
No. of insusceptibles ...	12	11	3	25	3
Conscientious objections ...	3,253	3,111	3,192	3,269	3,157
Died unvaccinated ...	163	167	164	136	135
	4,104	3,865	3,926	3,976	3,836
Postponement ... ..	45	45	60	57	28
Removals ... ..	61	56	91	93	106
Untraced ... ..	64	82	73	70	100
	170	183	224	220	234
	4,274	4,048	4,150	4,196	4,070
Not yet accounted for ...	208	227	255	284	251

## 8. Mental Deficiency.

### (1) *Statistics and Ascertainment.*

The responsibility for the care of the mentally defective in this area is shared by three Education Authorities (Cheltenham, Gloucester City and the County), and by the Joint Committee of the County Council and Gloucester Corporation.

The number of persons on the registers of the County Education Committee and the Joint Committee at the end of 1937 was 1,388. In addition, there are 141 persons reported by Certifying Officers to be merely "dull and backward" and 260 others who are now reported to be "normal."

The distribution of the 1,388 persons now on the register is:—

				<i>Males</i>	<i>Females</i>	<i>Total</i>
<b>JOINT COMMITTEE.</b>						
In Institutions (under Order)	...	...	...	126	133	259
On licence	...	...	...	10	4	14
Guardianship (on licence)	...	...	...	—	1	1
Under Statutory Supervision	...	...	...	136	131	267
In Voluntary Homes	...	...	...	24	18	42
<b>UNDER PUBLIC ASSISTANCE COMMITTEE.</b>						
In Mental Hospitals	...	...	...	56	59	115
In P.A. Institutions	...	...	...	72	116	188
At Home	...	...	...	51	63	114
<b>OTHERS.</b>						
<b>(1) CLASSIFIED CASES.</b>						
No special action taken	...	...	...	20	16	36
No special action taken (formerly Education Committee cases)	...	...	...	57	49	106
<b>(2) NOT YET CLASSIFIED</b>	...	...	...	53	69	122
				<u>605</u>	<u>659</u>	<u>1,264</u>
<b>EDUCATION COMMITTEE.</b>						
Classified	...	...	...	55	34	89
Unclassified, awaiting full examination	...	...	...	20	15	35
				<u>680</u>	<u>708</u>	<u>1,388</u>

During 1937, 129 new names were added, the sources of ascertainment being as follows:—

Children medically examined at Schools	...	...	53
From Public Assistance records	...	...	50
From Nurses	...	...	1
From other sources, Medical Attendants, etc.	...	...	25
			<u>129</u>

Forty-six persons left the County and 27 died during 1937.

(2) *Institutional Accommodation.*

(a) *Cases sent to Institutions.*

On 31st December, 1937, there were 273 persons under Order in Institutions, 14 of whom had been granted licence. The distribution of the cases is given below:—

<i>Institutions</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
Stoke Park Colony	71	111	182
Brentry Colony	54	—	54
St. Mary's Home, Painswick	—	2	2
Sandlebridge, Mary Dendy Home	1	1	2
Royal Earlswood	3	—	3
St. Teresa's Home	—	2	2
Ashton House, Liverpool	—	1	1
Eagle House, Mitcham	—	3	3
Cirencester P.A.I.	—	2	2
Rampton State	7	15	22
			<u>273</u>



During the year, 30 additional cases were sent to institutions and are included in the above summary. There have been five deaths amongst the County cases at Stoke Park (4) and Brentry (1) Colonies, and five defectives have been discharged from their Detention Orders. One case was transferred to the County Mental Hospital from Rampton State Institution.

(b) *Institutional Accommodation.*

As will be seen from the table given in paragraph 2 (a), most of the Committee's cases are sent to Stoke Park and Brentry Colonies respectively.

Members of the Committee visited Stoke Park Colony and Hanham Hall in July and were favourably impressed with what they saw.

Certificates of approval authorising the reception of mental defectives of specified grades and ages at the Cirencester and Stow-on-the-Wold Public Assistance Institutions have been renewed by the Board of Control to the 31st March, 1938. At present there are no certified mental defectives maintained at either institution, and consideration will require to be given to the question of the future use of this accommodation.

On 30th June, 1937, the Managers of Stoke Park Colony relinquished the certificate of the Board of Education whereby "educable" children were received in a part of the Colony approved as a Special School. The Gloucestershire Education Committee at that time were maintaining thirteen children at this place, the Gloucester City and Cheltenham Borough Education Committees one case each, and, with two exceptions, all these children were re-classified as ineducable. Arrangements were made for the transfer of the two children who were still regarded as "educable" to existing Special Schools, and the other children were withdrawn, and their cases have since been considered and dealt with by the Joint Committee.

(3) *Guardianship.*

The Committee has only one case placed under Guardianship and in this instance the circumstances proved so satisfactory that the girl has been allowed to enter a place of service, licence being granted.

(4) *Licence.*

The total number of cases on licence at the end of the year was 14. Seven patients were granted licence from Institutions in 1937. Unfortunately, in three instances, it proved necessary to revoke the licence and the patients were returned to their respective Institutions.

There is still considerable difficulty in finding suitable persons who are willing to undertake the care of defectives who have done reasonably well in Institutions over a period, but the Joint Committee have agreed to a request made by the Brighton Guardianship Society that they should extend their activities to this County.

(5) *Supervision.*

The number of cases at present under periodic visitation in their own homes is 267, 136 males and 131 females. These are visited by County Health Superintendents, Health Visitors or District Nurses, and reports are submitted quarterly in the great majority of cases. Where the home is good and the care

and protection adequate, the Committee have agreed in certain cases to less frequent visitation.

(6) *Occupation Centres and Home Training.*

There are no occupation centres under the Committee's jurisdiction but they have renewed, until 31st March, 1938, the arrangements made in certain districts for the instruction of 15 mental defectives in their own homes. The reports received as to the progress made by such defectives continue to be satisfactory.

(7) *Leave of Absence on Licence Cases.*

The Committee have considered a circular letter from the Board of Control calling attention to the judgment given at Liverpool Assizes in June, 1937, in the case of *Holgate v Lancashire Mental Hospitals Board*. The circular contained a brief resume of the case in question in which the jury had found that there had been negligence in connection with the granting of a leave of absence licence and heavy damages had been awarded to the plaintiff.

The Committee reviewed their practice in regard to the issue of leave of absence licences; they considered their procedure to be satisfactory and that there did not appear to be occasion to make any variation therein.

(8) *General.*

The Committee have continued their usual practice of recommending Managers of Institutions to grant holiday leave to defectives in suitable cases and a considerable number were allowed such leave in the summer months.

It is hoped to commence early next year a survey of all cases in the County and to effect a complete classification of all cases on the register. Surveys of patients in Public Assistance Institutions will be undertaken and a complete examination and classification made where mental defect exists.

## SECTION C.

### INFECTIOUS DISEASES.

There has been an increase in the number of cases of Diphtheria in the County, the total notifications received during the year amounting to 206 as compared with 145 during 1936. The number of cases of Scarlet Fever also shows an increase, 578 notifications having been received in comparison with 499 during the previous year.

The returns of infectious diseases received from the Schools show that there was a reduction in the incidence of Measles, but a marked increase over last year occurred in the number of cases of Mumps. It was also found necessary to close five Schools on account of the prevalence of Influenza. These Schools were closed on the recommendation of the District Medical Officers of Health with the subsequent approval of the School Medical Officer.

The arrangements for the notification of infectious diseases from Schools to the District Medical Officer of Health and thence to the School Medical Officer do not appear to work entirely satisfactorily, and a variation of the present system will be made early next year.

### **Diphtheria.**

The number of cases of Diphtheria notified was 206, an increase of 61 over last year. Of these cases, the number notified from urban areas was 88 and from rural areas 118.

The greatest number of cases occurred during the last quarter of the year, although there was a relatively high incidence during the first three months.

The districts mainly affected were Kingswood Urban District (54), Warmley Rural District (30), Sodbury Rural District (27), East Dean Rural District (25), Cheltenham Borough (18).

The number of deaths recorded as due to Diphtheria was eight as compared with five during 1936.

Arrangements are in force in certain districts for artificial immunization, but no comprehensive scheme embracing the whole County has yet been formulated. The arrangements made in various areas differ both with regard to method and procedure, and it is hoped before long that action may be possible to widen the scope of existing schemes and, by their extension and the application of similar measures to areas as yet untouched, to secure a uniform provision throughout the County.

### **Scarlet Fever.**

The notifications of Scarlet Fever in 1937 totalled 578 as compared with 499 during the previous year. The distribution of the cases between Urban and Rural districts was Urban 248 and Rural 330.

The greatest incidence of the disease occurred during the last quarter of the year, when 317 cases were notified, the remainder of the notifications were fairly evenly spread over the other quarterly periods.

The districts most affected were :—Mangotsfield Urban District (85), Cheltenham Borough (76), Kingswood Urban District (62), West Dean Rural District (43), Sodbury Rural District (40), East Dean Rural District (38), Thornbury Rural District (34).

The number of deaths from Scarlet Fever was three as compared with five last year.

### **Measles.**

The returns of Infectious Diseases received from Elementary Schools in the County show that there was a decrease in the incidence of Measles in 1937. Three Schools were closed during the year on account of the prevalence of this disease. The Schools were closed on the recommendation of the District Medical Officer of Health with the subsequent approval of the School Medical Officer.

Certificates of reduced attendance were issued in respect of 26 Schools owing to prevalence of Measles.

### **Influenza.**

There was no indication during the year of the occurrence of Influenza in

severe epidemic form. Five Schools were closed on the recommendation of the District Medical Officer of Health on account of Influenza, but included amongst the absentees were many children suffering from Coughs and Colds.

#### **Pneumonia.**

The number of cases of Pneumonia notified during 1937 was 272 as compared with 203 during the previous year. The greatest number of cases occurred during the first half of the year, and of the total number of cases 224 occurred in Rural Districts.

The districts mainly affected were Sodbury Rural District (47), West Dean Rural District (41), Cheltenham Borough (24) and Gloucester Rural District (23).

#### **Gastro Intestinal Diseases.**

The notifications of Enteric Fever during 1937 numbered six as compared with twelve during the previous year. Two cases occurred in Urban areas and four in Rural Districts.

The cases were of a sporadic nature and no special investigation of an outbreak was necessary.

Ten cases of Dysentery were notified and where pathological investigation was undertaken the cases were shown to be of the Sonne type.

#### **Diseases of the Central Nervous System.**

Four cases of Anterior Poliomyelitis were notified during the year, and three cases of Polioencephalitis. The latter all occurred in the Borough of Cheltenham. The cases of Anterior Poliomyelitis were notified from the Kingswood Urban District, the Stroud Rural District, the Tetbury Rural District and the Thornbury Rural District.

Three notifications of Encephalitis Lethargica were received. The cases occurred in the Stroud Urban District, the Sodbury Rural District and the Thornbury Rural District.

Two cases of Cerebro Spinal Fever occurred in 1937, one in the East Dean Rural District and one in the North Cotswold Rural District.

### **SECTION D.**

#### **SANITARY CIRCUMSTANCES OF THE COUNTY.**

This survey of the sanitary circumstances of the County has been made with special consideration of the following matters:—Water Supplies, Drainage and Sewerage and Closet Accommodation, Scavenging, the condition of Rivers and Streams, Swimming Pools and Baths and natural facilities for swimming; Premises and occupations which can be controlled by bye-laws and regulations; Smoke abatement; Sanitary Inspection; Housing.

The information given has been obtained from the reports made by District Medical Officers of Health and from observations made by officers of this department.

## 1. WATER SUPPLIES.

There are improvements to record in the water supplies of the County during the past year, and in most areas the supply of water is reported to be satisfactory in quality and quantity. In certain considerable areas, however, there is still an absence or inadequacy of piped supplies, while the alternatives to these, such as well, spring or direct rainwater supplies, often fall short of desirable standards of freedom from pollution and are usually inadequate in times of drought.

Two notable events during 1937 must be recorded, these being the passing of two Private Parliamentary Bills, the Cheltenham and Gloucester Joint Water Boards, etc., Act, and the North Cotswold Rural District Council Act.

The former Act should make a piped supply available in time to most of the numerous parishes in the Gloucester and Newent Rural Districts that at present rely on springs, well and other private supplies, while the shortage at present experienced in Summer in the area already receiving a piped supply should be relieved. The North Cotswold Act will bring a piped supply to five parishes and augment the existing supply to a sixth.

In certain areas of the County, mostly in parts of the Gloucester and Newent Rural Districts and certain villages in the Sodbury, Dursley, Stroud, Northleach and Tetbury Rural Districts there are no piped supplies, springs or shallow wells being the only source of water. Both these, but especially the latter, are uncertain in yield and open to risk of pollution, many being reported as actually polluted, according to the results of analysis. The reports of the County Medical Officer for years previously have drawn attention to the unsatisfactory state of the water supplies of certain parishes in the particular districts previously named, but during the investigations and surveys of water supplies which were made in connection with the promotion of the Cheltenham and Gloucester Joint Water Boards, etc., Act it became evident that there were a great number of additional parishes or villages in the Gloucester, Newent and Cheltenham Rural Districts where it would be advisable to supersede or augment the existing supplies with a new piped system.

It is a matter of interesting speculation to consider what conditions would be revealed by similar surveys of existing water supplies in other parts of the County.

The conditions in each area, according to present knowledge and the reports sent in by District Medical Officers of Health, have been summarised under five headings, *viz.* :—(1) new sources of public water supply ; (2) extensions of existing mains supplies ; (3) new connections made with the public supply ; (4) measures taken and/or in force for the discovery of sources of contamination, such measures including inspection of the gathering ground, and chemical and bacteriological analyses of samples taken either of the raw water or after it has been treated (*e.g.*, by filtration and chloramination or chlorination) ; (5) an opinion as to the quality and sufficiency of the supply.

With regard to the fourth and fifth headings, one of the District Medical Officers of Health rightly points out that inspection of the gathering ground is not sufficient to discover or exclude sources of contamination, but in addition the routine taking of samples is necessary. This point cannot be too strongly

emphasised, and in order to facilitate and encourage frequent analyses, arrangements are being made to reduce the costs of chemical and bacteriological analyses in this county.

It is suggested that samples of public water supply should be taken and submitted for full chemical and bacteriological analyses at least twice a year, say once in summer and once in winter, and that limited chemical analyses, designed to detect only present or recent pollution, omitting reference to such matters as the type of source, hardness, presence or absence of poisonous metals, which are not likely to vary much, also a bacteriological examination for sewage organisms, should be made at more frequent intervals, the frequency depending on factors such as the magnitude of the water undertaking, the opportunities for pollution which the source or gathering ground offer, and whether any method of current or continuous purification, such as chloramination or chlorination of the filtered water, is practised.

In the following summary of the developments and present condition of the water supplies in the various Sanitary Districts, an extensive or critical note regarding the supplies in a particular district does not necessarily imply that that district is less well off than another which is referred to briefly; indeed the volume of detail given is to some extent dependent upon the extent to which local conditions have been brought to the notice, or discovered by the labours of, the staff of the local sanitary authority during the year.

#### Urban Districts.

*Charlton Kings.* There have been no new sources of public supply, but small extensions of existing mains have been made, with 26 new connections. The whole of the piped supply is from the Cheltenham Corporation undertaking which is regularly analysed by that authority. One sample taken in Charlton Kings was satisfactory, as is the supply generally, both in quality and quantity.

*Cheltenham.* Concerning new sources of public supply, the passing of the Cheltenham and Gloucester Joint Water Boards, etc., Act has already been referred to. Extensions of the existing mains have been made to connect with those of the Gloucester Corporation supply. Regular analyses of the water are carried out, 150 samples being examined during the year in addition to a number of analyses made at the Tewkesbury works by the full time analyst of the Joint Water Board.

*Cirencester.* A new source of supply is available and a new scheme is in course of construction. Two new bore holes, each giving a yield of six million gallons a day were sunk at Baunton in 1935, and a new reservoir is to be built near the Gloucester road. There have been small extensions to the existing mains and 101 new connections. Only four samples were taken, but the quality of the water is stated to be satisfactory though the quantity available from the old supply has been becoming inadequate. The Urban District Council have offered to share the new source of supply with neighbouring districts, but so far none have availed themselves of the offer.

*Mangotsfield.* There were no new sources of public supply, and no particulars regarding extensions of existing mains have been reported, but 271 new connections to the old mains have been made. An unspecified number of samples were taken, and the supply is stated to be satisfactory both in quality and quantity.

*Nailsworth.* There have been no changes in the water supply, which is from the undertaking of the Stroud Water Company. Six samples were taken by the Water Company itself and all are stated to have been satisfactory.

*Stroud.* There have been no new sources of public supply, but existing mains have been extended to Bowbridge Lane, and there were 80 new connections to the piped supply. Fifteen samples were submitted for analysis, and the supply is stated to be satisfactory.

*Tewkesbury.* Water is obtained from the Cheltenham and Joint Water Board undertaking, but some outlying houses have well supplies and are not served by the mains. The mains, however, have been extended for new housing sites. 213 new connections were made. Analyst's reports of the main supply, which is chlorinated, were very satisfactory, but three samples taken from pumps drawing water from wells were all unsatisfactory and steps were taken to provide a main supply.

### Rural Districts.

*Cheltenham.* Negotiations have been commenced for the purchase of the Toddington Supply formerly owned by the Toddington Manor Estate. Extensions of the existing mains have been made at Southam and Winchcomb. New connections number 101. Ten samples of the supplies from various sources were taken and the water supplies generally are satisfactory in quality and quantity. Under the Cheltenham and Gloucester Joint Water Board, etc., Act, 1937, the parish of Twyning is brought within the extended water supply area of the Cheltenham Corporation.

*Cirencester.* There have been no new sources of supply, the Rural District Council not yet having found it necessary to take advantage of the offer of the Urban District Council to share their prolific new source. No extensions have been made, but there were eight new connections. Nineteen samples were taken during the year and the supply is considered satisfactory.

*Dursley.* A new main supply for North Nibley to be brought from Millend, North Nibley, is proposed. The extension of the existing mains to Slimbridge is nearing completion while another extension to Nympsfield is under consideration. North Nibley and Nympsfield are among the parishes specifically mentioned in reports of the County Medical Officer of Health for 1935 and 1936 as requiring improved water supplies.

In this district there have been a great number of new connections to the mains, a total of 331 being reported. Only four samples were sent for analysis, but the main supplies are stated to be satisfactory. The quality of the water supplies in those localities not yet served by a piped supply is not separately reported on, but is unlikely to be superior to that of similar sources in the adjoining Gloucester Rural District.

*East Dean.* A new well has been sunk at Green Bottom, which will augment the existing supply for the district when it is brought into operation. No samples, or other measures for discovering possible contamination, were taken.

*Gloucester.* The passing of the Cheltenham and Gloucester Joint Water Boards, etc., Act during the year should in time bring about great improvements

in the water supply of this district. During 1937 the Gloucester City mains were connected to those of Cheltenham at Staverton, and the Gloucester mains were extended further into the Rural District at the following points:—Barnwood, Hucclecote, Brockworth and Highnam. No alterations were made in the Newnham works system, but the Stroud Water Company laid a larger service main in the Stonehouse area which will improve the service to the Eastington parish of the Gloucester District. The Gloucester and Stroud supplies are examined regularly and are satisfactory, though strict economy was requested during the summer in the case of the former. The Newnham supply ran short during the summer months. Twenty-five samples were taken from wells, and of these, eighteen were unsatisfactory. Local well supplies are the only source of water for the major part of the district and are, generally speaking, unfit for drinking purposes, although boiling would render the water safely potable.

The parishes specifically mentioned in the report of the County Medical Officer of Health for 1936 as requiring improved water supplies, *viz.*:—Brookthorpe, Frampton-on-Severn, Fretherne-with-Saul, Longney and parts of Moreton Valence, Upton St. Leonards and Wheatenhurst are still in the same position. All these parishes are now included in the area of supply given to the Gloucester Corporation, so facilities for bringing a piped supply to any of them now exist.

The following parishes in the Gloucester Rural District are also brought within the extended area of piped supply available under the 1937 Act:—Arlingham, Ashleworth, Elmore, Hardwicke, Harescombe, Haresfield, Highnam, Maisemore, Minsterworth, Standish and Westbury-on-Severn being brought into the area of the Gloucester water supply, and Chacely, Forthampton, Hasfield and Tirley into that of the Cheltenham undertaking.

Obviously, however, it will take considerable time to replace all the wells in these areas with piped supplies, and the local authority will have a heavy task to undertake before all the supplies in this district can be considered satisfactory for drinking purposes.

*Lydney.* There were no new sources of supply nor extensions of existing mains during the year. Forty-nine new connections were made. No samples or other measures designed to detect pollution appear to have been taken, but the supply is stated to be satisfactory in quality and quantity.

*Newent.* No new sources of supply have become available, but power to extend the supply area of the Gloucester City water undertaking further into the Rural District of Newent is now given by the Cheltenham and Gloucester Joint Water Boards, etc., Act. This extended area includes the parishes of Dymock, Hartpury, Kempley, Newent, Oxenhall, Pauntley, Rudford, Taynton, Tibberton and Upleadon. Actually during the year extensions of the Gloucester mains were carried out in three places, including the estate of the Land Settlement Association, where 41 new connections were made. As regards analysis, samples of the Gloucester and of the Newent Town supply were satisfactory, but of eight samples taken from wells, four were unfit for drinking purposes. Seven of the fourteen parishes in the Rural District are at present dependent on well water, so the position cannot be considered satisfactory and it is to be hoped that the power given in the new Act will soon be utilised.

*North Cotswold.* During the year the Rural District Council promoted a



Private Bill in Parliament for acquiring water at Blockley and for the construction of works and mains to supply the parishes of Bourton-on-the-Hill, Condicote, Donnington, Stow-on-the-Wold, Bledington and Bourton-on-the-Water. A contract for £74,000 was placed in December. Extensions of existing mains were carried out at Stow-on-the-Wold, Chipping Campden and Moreton-in-Marsh. A large proportion of the mains at Weston-sub-Edge and Paxford were re-laid. During the year, the Rural District Council decided upon sampling and routine examination of all public water supplies at yearly intervals, and during 1937 thirty-nine samples were taken. The quality generally was good, though samples gave unsatisfactory analyses at Naunton, Weston-sub-Edge, Chipping Campden and Great Rissington. Steps were taken in all cases to remove the cause of pollution. Shortage was experienced at Great Rissington, Chipping Campden, and Stow-on-the-Wold.

*Northleach.* There have been no new sources of public supply, no extensions to existing mains nor new connections. The deficiency of supply at Cold Aston noted in the report of the County Medical Officer of Health for 1936 has not been rectified, but no shortage of water was reported during the year. As no samples of water were taken during the year, no opinion can be expressed regarding the quality of the water supplies in the district.

*Sodbury.* Existing mains have been extended to Marshfield, the whole of this village now having a piped supply, and extensions have also been laid through the parishes of Dodington, Westerleigh, Frampton Cotterell, Yate and Iron Acton. A great number of new connections were made, these totalling 645. Sampling and analysis have been extensively carried out, 42 samples being taken in the year; the main water supplies are satisfactory in quality and quantity, but no special information regarding the water supplies to houses not yet on the main is available.

*Stroud.* No changes, either as regards new supplies or extensions, have occurred, but 209 new connections with the public supply have been made. The villages mentioned in the reports of the County Medical Officer of Health for 1935 and 1936, Sheepscombe, Camp and Bisley, are still without satisfactory supplies, the houses relying on wells and springs often shared, and open in some cases to the risk of pollution. A scheme for bringing a piped supply to these villages from a spring source at Cranham, and building a reservoir on high ground near the source, is, however, now under consideration.

In addition to the routine analyses made by the Stroud Water Company, which supplies a considerable area of the Rural District, nine samples have been taken by Officers of the Rural District; three from wells, one of which was unsatisfactory, and six from the Stroud Water Company supply all of which were satisfactory for drinking purposes.

*Tetbury.* There has been little change in the water supplies, only slight extensions to the existing mains having been made. No measures were taken during the year for the discovery of sources of contamination, but the supply is stated to be adequate and of good quality.

*Thornbury.* There were 311 new connections to the mains in this district, but otherwise little change. Thirty samples were taken but the number of those taken from sources other than piped supplies is not stated.

*Warmley.* Several short extensions of existing mains were made to accommodate developments in housing, 38 new connections being made. There is no record of any sampling, but the supply is stated to be satisfactory in quality and quantity.

*West Dean.* Extensions of the mains have been made at Lydbrook, Parkend and Bream, and 203 new connections were made in the district. Two samples were taken during the year, and the piped supply is stated to be adequate in quantity and quality.

#### DRAINAGE AND SEWERAGE, SEWAGE DISPOSAL AND CLOSET ACCOMMODATION.

A number of new sewerage schemes and improvements in drainage have been made. The condition of the drainage and sewerage in the various Sanitary Districts is reviewed with particular attention to the following points:—new schemes or works completed, commenced or contemplated during the year; particulars of parishes not at present served by a sewerage system, but where there is need of one; of parishes where there is need of improvement in the existing sewerage; and of places where improvements in the methods of sewage disposal are desirable. The question of sewage disposal cannot be considered separately to that of River Pollution, for discharging crude or imperfectly purified sewage is of course the most objectionable mode of pollution. It is difficult to take action against the owners of an inefficient sewage disposal works unless it is possible to prove that the effluent from the works is of such a nature that a certain degree of pollution of a stream or river is occurring. During 1938 it is hoped to survey some or all of the rivers in the County with particular regard to their state of purity or pollution. If this is accomplished it will be possible to report more fully upon the efficiency or otherwise of sewage disposal in the County.

#### Urban Districts.

*Charlton Kings.* The district sewer is connected with that of Cheltenham. There have been no changes.

*Borough of Cheltenham.* New sewers were laid to replace certain defective brick-constructed sewers. Work has been commenced in relaying the sewers in one area where flooding has occurred. The relaying of the main sewer has been approved.

*Cirencester.* A new scheme is contemplated for Stratton, apart from which there have been no changes, and the system is satisfactory.

*Mangotsfield.* During the year duplication of the main sewer has been carried out from Leap Bridge to the works, also various extensions to connect up a portion of the Mangotsfield Rural Parish in the Warmley Rural District to the Mangotsfield Urban District sewer. Extension of works in connection with the Filton and Frome Valley Scheme for Chipping Sodbury and Thornbury are contemplated.

*Nailsworth.* New schemes for Forest Green and Tynings Housing Site were commenced and completed during the year, 100 yards of nine inch piping and 165 yards of 6 inch piping being required respectively. Extension of the sewer to Pinfarthings is also contemplated, also a new Joint Scheme is under consideration. New disposal works are to be established. As regards conversion, five earth closets have been replaced by water closets.

*Stroud.* The new scheme at Stratford Park has been completed. A sewerage scheme is needed for the village of Westrip. A joint scheme for new sewage disposal works is under consideration. Extensive conversion has been carried out, sixty-two new water closets, exclusive of new buildings, having been fitted.

*Tewkesbury.* The main sewer has been extended 160 yards along Swilgate Road and 200 yards along Oldbury Gardens and Hospital Lane. The existing sewage disposal works are inefficient, and although provision of new works was considered a few years ago, so far no decision has been come to. No conversion has been carried out, but there are still 21 houses with earth closets within the Borough.

### Rural Districts.

*Cheltenham.* Work has been commenced on a scheme for the provision of sewers and disposal works for Greet in the parish of Winchcombe, at an estimated cost of £1,800. There is need for a new sewerage system at Gotherington, Kidnapper's Lane (Leckhampton) and Newtown (Toddington). Sixteen dry closets have been converted to water-carriage, but seven new dry conservancy closets were constructed in the district.

*Cirencester.* The settlement tank at the North Cerney works has been replaced by new tanks and a filter. The Cesspools of the six Council Houses at Ampney Crucis have been put out of use, the drains being led into a small sewer discharging into a septic tank and filter purification system. The parish of South Cerney needs a sewerage system, and extension of the existing sewerage is required at Fairford and Lechlade, at which places improved means of disposal are also necessary. Sixteen dry conservancy systems were replaced by water closets.

*Dursley.* The Dursley sewer was extended to the Fortress, and the extension of the main sewers to Quarry Box Road, Cam Green, Tilsdown and Woodfields is contemplated. It is hoped that work will soon be commenced. Sewerage systems are needed for the parishes of Stinchcombe, North Nibley, Nympsfield, Coaley, Slimbridge and Uley, in relation to which it has been noted previously that new water supplies by piped system have been brought to North Nibley and Slimbridge, and are proposed for Nympsfield. Improvements are required in the existing sewerage at Cam, and at the Dursley and Cam disposal works. There have been twelve new dry conservancy closets constructed in the area and ten conversions from dry conservancy to water carriage.

*East Dean.* New sewage disposal works have been completed at Littledean and Mitcheldean capable of dealing with a population of 1,000 and 600 respectively. Drybrook is now served by an extension of the sewer. The parish of Ruardean is in need of a sewerage system and reconstruction of the Soudley works for East Dean is also necessary. There have been eighteen conversions to water carriage.

*Gloucester.* Sewers have been extended at Brockworth for  $1\frac{1}{2}$  miles. Hucclecote for  $\frac{1}{4}$  mile and Longford Lane for 250 yards. The sewer at Barnwood has been extended for 400 yards. New schemes are under consideration for the

Frampton and Fretherne districts, and there is also need for sewerage at Upton St. Leonards, Quedgeley, Moreton Valence, Hardwicke, Hempsted, Arlingham, Framilode and parts of Eastington and Brockworth. The Longford sewage works receiving sewage from Longford, Longlevens, Barnwood, Hucclecote and Brockworth are unsatisfactory and much overloaded. Various schemes to alter and improve these works are under consideration by the Council. The "Osmotos" method of purification and deodorisation of the effluent was started in December, but though the system appears satisfactory, it is too early to give an opinion on the results. There have been ten conversions to water closets in the Rural District during the year.

*Lydney.* There have been no changes in the drainage or sewerage of the district except that eight dry conservancy systems were converted to water closets, ten privies abolished and pails substituted, and thirty new pails supplied to replace defective ones. There are no parishes in which new sewerage systems or improvements to existing systems are considered necessary.

*Newent.* A 250 yards length of 12 inch sewer was laid in Watery Lane, Newent, to connect the new Housing Estate with the main sewer. Extensions to the filter beds at Newent sewage works have been approved by the Council and work is expected to commence in April, 1938. These extensions will increase the area of the beds by about ten times and should improve the effluent. Most of the parishes in the district would benefit by having a sewerage scheme, but in a scattered area of this type such an idea is at present impracticable. Improvements in the existing arrangements are, however, indicated at Dymock and in part of Redmarley in addition to the disposal system at Newent previously mentioned. As regards dry conservancy, seven existing closets have been improved, twenty new pail-closets have been erected and three dry closets converted to water carriage.

*North Cotswold.* Improvements have been carried out at the Moreton-in-Marsh Disposal Works, and a low level sewer and pumping station have been constructed to raise sewage to the high level sewer. At Broadwell the sewer has been re-laid.

During the year work has been commenced on improvements to the disposal works at Blockley and to the sewerage system at Bourton-on-the-Water. Relaying the sewer at Bourton-on-the-Hill and improvements to the Broad Campden system are also contemplated. The parishes of Willersey and Mickleton need a sewerage system and improvements to the existing system are required at Lower Swell and Upper Slaughter. Fifteen conversions to water carriage have been made in the Rural District.

*Northleach.* There are no sewers or works for sewage disposal in this district, and no schemes for sewerage are contemplated. There appears to be no immediate need for a sewerage scheme in any of the 26 parishes of the district. As distinct from *sewerage*, however, every endeavour is made and encouragement given for *drainage* improvements, for example, nine of the horrible structures known as privy-vaults were converted to water closets. Other privy-vaults, however, still exist, and four were reconstructed during the year.

*Sodbury.* A new scheme has been completed at Marshfield, and work on extra pumping plant and a new settlement tank have been commenced at Filton. Improvements in sewerage are also contemplated at Pucklechurch, Old Sodbury, Yate, part of Iron Acton and Westerleigh, while new systems are desirable for Wick and for the remaining and major part of Iron Acton.

Improvements in sewage disposal are indicated at Filton and Yate.

A large number of conversions have been made, 110 dry conservancy closets being replaced by water closets.

*Stroud.* New schemes have been completed during the year for the parish of Minchinhampton, and are also proposed for the whole of the large part of the Rural District as yet unsewered. Several parishes are much in need of sewerage. The disposal works have been functioning satisfactorily and fourteen dry conservancy systems have been converted to water-carriage.

*Tetbury.* No new schemes have been completed, commenced or contemplated during the year, but existing systems have been extended to serve the Hampton Street Housing Scheme, 343 yards of 9" and 288 yards of 6" sewers being laid. No parishes are stated to require new sewerage systems or improvements to existing ones. On the other hand, dry conservancy closets, even privy-vaults, are still in use, six of the latter anachronisms having been filled in and replaced by pail closets. Two earth closets were converted into water closets.

*Thornbury.* Work on the main sewers, also on temporary disposal works in the parish of Almondsbury, has been commenced while a permanent disposal scheme is desirable and is under consideration. There has been no conversion, but seventeen new dry conservancy closets have been constructed in the district.

*Warmley.* Under the Kingswood and Warmley Joint Scheme, the main sewer has been completed, and a new sewer has been provided connecting the Mangotsfield Rural Parish to the Mangotsfield Urban District sewer. Plans for a branch sewer for that part of the Rural District not at present served by a sewer (Bitton, Oldland and Hanham Abbots) are in course of preparation. Eleven dry conservancy closets have been converted to water closets.

*West Dean.* No new sewerage schemes or extensions have been completed or commenced during the year, but the Council are at present considering the provision of an adequate and modern system of sewerage and sewage disposal for Coleford and district.

A sewerage system, however, is desirable in all the other parishes in the district. At present part of Coleford is the only place so served. In spite of the lack of available sewerage there have been 40 conversions from dry conservancy to water closets during the year.

#### RIVERS AND STREAMS.

Apart from the annual surveys of the River Severn in its course through Gloucestershire, there have been no surveys of rivers or streams in the County

during 1937. It is hoped that it will be possible, with increased staff, to undertake some of this work during 1938, for it is of importance in detecting sources of pollution from untreated sewage, or from effluent from inefficient sewage disposal works, from trade wastes, road and field washings, etc., that might otherwise be overlooked; also in proving that known sources of pollution are in fact likely to be a danger to health, to destroy fish or interfere with the amenities of the river.

*Survey of Severn.* During 1937 two surveys of the Gloucestershire portion of the River Severn were made, simultaneously with similar surveys made in other counties through which the river runs. The Gloucestershire surveys were made on July 6th and October 5th, and both were undertaken by Dr. T. F. H. Blake.

In each case the survey was made to note the general condition of the river, the degree of saturation with oxygen which samples of the river water showed at certain points, and the content of ammoniacal nitrogen. To a certain extent, the amount of oxygen dissolved in river water is an index of its degree of purity, for most polluting organisms consume oxygen in the course of their living activities, so that the greater the number of these "aerobic" polluting organisms, usually derived from sewage, present in a given volume of water, the lower is the dissolved oxygen content. But other factors exert a powerful influence on the dissolved oxygen content; for instance, water temperature, atmospheric pressure and the amount of agitation of the water will all affect the dissolved oxygen.

The method used for the Severn survey is as prescribed and carried out for the whole river under the auspices of the fisheries department of the Ministry of Agriculture and Fisheries.

In addition to the dissolved oxygen determination, the ammoniacal nitrogen content of the water has been estimated at the various sampling points, and this also gives an indication of the state of the river as regards pollution with animal or vegetable matter.

Summaries of the two Surveys are as follows :—

*July 6th, 1937.*

The day was cold for the time of the year and there was a fair wind; the sky was overcast and it was raining during the later part of the morning. Most of the samples were taken on the flowing tide, high water occurring about 11.15 a.m. The general character of the stream was as usually observed: one salmon was caught at Lower Lode during the morning, scum was noted on the surface at Maisemore Bridge, and the water at Minsterworth Ferry was not so saturated with mud as usual.

The oxygen saturation was rather above the average for this part of the river, ranging from 66% at Haw Bridge to 88% at Maisemore.

It is difficult to account for the low figure of 66% at Haw Bridge following 84% at Lower Lode only about four miles higher twenty-five minutes earlier,

Point	Time	Temperature C		Oxygen Parts per 100,000	Satura- tion %	Ammon. Nitrogen Parts per 100,000	p.H.
		Air	Water				
1. Mythe Bridge ...	a.m. 9.45	17.5	19.5	0.83	86.5	0.020	7.8
2. Lower Lode ...	10.15	19.0	18.5	0.815	84.0	0.020	7.7
3. Haw Bridge ...	10.40	17.0	19.0	0.63	66.0	0.020	7.5
4. Maisemore Bridge ...	11.10	19.0	18.5	0.85	88.0	0.017	7.8
5. Over Bridge ...	11.30	17.5	18.0	0.82	85.0	0.023	7.8
6. Minsterworth Ferry	p.m. 12.10	19.0	18.0	0.72	74.0	0.047	7.6
7. Westgate Bridge ...	12.30	18.5	18.5	0.765	79.0	0.013	7.8

October 5th, 1937.

The sampling was carried out on a dry, cloudy day with cold winds. The three earlier samples were taken on a flowing tide, and the general character of the stream was as usually observed above Maisemore Bridge, but there was an unusually high content of mud in suspension below this point. The oxygen saturation was about average, and a sample taken from the R. Avon above its confluence showed a satisfactory result.

Point	Time	Temperature C		Oxygen Parts per 100,000	Satura- tion %	Ammon. Nitrogen Parts per 100,000	p.H.
		Air	Water				
1. Mythe Bridge ...	a.m. 10.0	11.5	15.5	0.60	58.8	0.023	7.5
2. R. Avon ... (50yds. above confluence)	10.30	11.5	14.5	0.84	80.8	0.003	7.6
3. Lower Lode ...	10.45	11.8	15.0	0.70	68.0	0.020	7.5
4. Haw Bridge ...	11.40	15.5	15.0	0.70	68.0	0.010	7.5
5. Maisemore Bridge ...	p.m. 12.15	14.5	15.0	0.60	58.2	0.016	7.3
6. Over Bridge ...	12.35	14.0	14.5	—	—	0.007	7.6
7. Minsterworth Ferry	1.30	15.5	14.5	0.74	71.1	0.005	7.5
8. Westgate Bridge ...	1.55	16.0	16.0	0.66	65.3	0.002	7.5
9. Below Gloucester City Outfall	2.30	16.5	14.5	0.68	65.4	0.006	7.4

### SWIMMING POOLS AND NATURAL FACILITIES FOR SWIMMING.

There are seventeen swimming pools or baths in the administrative county, the majority being of the open air type. Eight are fitted with continuous chlorination plants and two others have means of purifying the water to some extent. Apart from the portions close to the rivers Avon and Severn, the County is not very well endowed with natural facilities for swimming, the tributaries of these rivers and of the Thames being too small, and there are few lakes.

The facilities available in the various districts are as follows:—

*Charlton Kings.* There are no swimming pools or natural facilities for swimming in the district, but those in Cheltenham are available.

*Cheltenham.* Three pools or baths are available; Sandford Swimming Pool and Alstone Baths, where the water is subject to continuous filtration and chlorination, and the Montpellier Bath. Samples were taken occasionally from the Sandford pool during the summer and found to be satisfactory.

*Cirencester.* There is one open air swimming pool with a filtration and chlorination plant installed.

*Mangotsfield.* There are no swimming facilities.

*Nailsworth.* A mill pool is used for swimming by a local club.

*Stroud.* There are two swimming pools in the Urban District, the water of each being chlorinated.

*Texkesbury.* There are no swimming pools, but considerable use is made of the Rivers Avon and Severn.

#### Rural Districts.

*Cheltenham.* The River Severn on the western boundary of the district and the pools in the Borough of Cheltenham are the only swimming facilities in the district.

*Cirencester.* The Upper Thames, and its tributaries the Coln and Churn in their lower parts provide limited facilities for swimming.

*Dursley.* There is one open air pool in the district, and one analysis of the water was satisfactory.

*East Dean.* A new swimming pool at Longhope was completed during the year and opened in August. In addition the district is close to the Rivers Wye and Severn.

*Gloucester.* There is only one swimming pool in the district, belonging to a hotel at Minsterworth, but it was not in use during 1937 owing to the difficulty of obtaining water. The River Severn is used for swimming in the district, as well as the facilities available in the County Borough.

*Lydney.* There are two pools in the district, one of salt water at Beachley, fitted with a chlorination plant, another of fresh water known as the Bathurst pool at Lydney. The latter is not chlorinated, but treated by a "voxsan"



spray daily. A sample taken from the Beachley water was satisfactory. The Rivers Wye and Severn are also available for swimming.

*Newent.* The Rivers Wye and Severn are the only waters available for swimming.

*North Cotswold.* There is one small swimming pool at Broad Campden. A sample of water was taken from it which, on analysis, proved to be unsatisfactory. The owner was advised as to purification and was also requested to provide sufficient sanitary accommodation. The upper Windrush runs through the district, but is too small and shallow to be of much value for swimming.

*Northleach.* There are no pools or baths, but parts of the rivers Coln and Windrush run through the district.

*Sodbury.* Swimming pools are available at Wick, Old Sodbury and Bitterwell, also a lake at Westerleigh.

*Stroud.* There are no facilities for swimming in the district, but the pools in the Stroud Urban District are available.

*Tetbury.* There are no swimming pools or other facilities.

*Thornbury.* Open-air pools are available at "The Bathings," Thornbury, and at Severn Beach. The former has continuous flow, the latter continuous filtration and chlorination. There is also an indoor pool at Firleaze Hotel under the supervision of Chemical Industries, Ltd., and supplied with company's water.

*Warmley.* No swimming facilities.

*West Dean.* The Rivers Wye and Severn provide the only facilities for swimming in this district.

#### SCAVENGING.

All the Urban Districts in the County are now scavenged regularly. Usually this duty is undertaken by the Local Authority and carried out by direct labour. For the most part, refuse is disposed of by controlled tipping, which, if properly done, is a very satisfactory method and carries the additional advantage that refuse can be put to a useful purpose; for example the turning of waste land into level recreation grounds, or for the raising of land liable to flooding.

As regards the Rural Districts, scavenging is, of course, a very difficult problem, for the isolated nature of the villages or houses, and the great distance required to be covered, greatly increase the difficulties and cost of collection and disposal. Indeed, in many parts a scavenging system is impracticable at present. Nevertheless, in six out of the fifteen Rural Districts the whole area is scavenged regularly, either by the local authority with direct or contract labour, or in one case, Sodbury, by the separate Parish Councils with contract labour. The six Rural Districts having a comprehensive scavenging service are North Cotswold, Sodbury, Stroud, Thornbury, Warmley and West Dean. The system used in the Sodbury District, wherein each parish makes its own arrangements has the drawback that the controlled tipping method of disposal is less easy to arrange and supervise on a small scale in a number of different places by different

contractors than it is if refuse is collected from a larger area and brought to one or two centres for disposal. The Councils of the five districts in which the whole district is brought under one scheme are to be congratulated on overcoming the undoubted difficulties of refuse collection and disposal in a rural area.

Of the remaining nine districts, Cheltenham R.D.C. have a service in four of the 36 parishes, *viz.* :—Prestbury, Leckhampton, Winchcomb and Woodman-cote, the last being provided during 1937, while Shurdington and Southam have made arrangements separately with private contractors.

In the Cirencester Rural District, Lechlade, Quenington, Fairford, Coates and Duntisbourne Abbots (the two latter for the first time during 1937), are now scavenged—five out of a total of 34.

Seven out of eleven of the parishes in the Dursley Rural District are scavenged, Dursley, Cam, North Nibley, Coaley, Wotton-under-Edge, Uley and Stinchcombe.

In the East Dean District three parishes out of nine are served, the scavenging system of the East Dean Township having been extended to Ruardean and Littledean during the year.

Nineteen out of thirty-eight parishes in the Gloucester Rural District are scavenged, eighteen by the Local Authority employing contract labour, and one parish, Upton St. Leonards, with a private system. The eighteen parishes scavenged by the Local Authority comprise, Arlingham, Brockworth, Barnwood, Brookthorpe, Churchdown, Eastington, Frampton, Fretherne, Frocester, Hardwicke, Hempsted, Hucclecote, Longford, Longlevens, Moreton Valence, Newnham, Quedgeley and Wheatenhurst.

In the Lydney Rural District, two parishes (Lydney and Aylburton) out of the seven, and in the Newent Rural District part of one (Newent town) out of the total of fourteen, are scavenged.

Northleach Rural District has a collection system in seven out of 36, and Tetbury in two out of thirteen parishes.

Altogether among the Rural Districts of the County, 130 out of 304 parishes are served by a scavenging system.

#### PREMISES AND OCCUPATIONS SUBJECT TO BYE-LAWS AND REGULATIONS.

Such premises include Common Lodging Houses, Slaughter Houses, Premises whereon Offensive Trades are practised; Bakehouses; Dairies, Cowsheds and Milkshops; Factories; Workshops and Workplaces; Outworker's Residences; Tents, Vans and Sheds; and Canal Boats.

Of these, Factories, except for the supervision of fire escapes and exits, come under the jurisdiction of the Home Office instead of the Local Authority, while Dairies, Cowsheds and Milk shops will be discussed in detail in another section of the Annual Report.

The figures given are in several places incomplete, owing to the annual return from Kingswood not having been received before this report went to print, and in instances such as the inspection of workshops, out-workers residences, bakehouses, etc., the omission of the Kingswood figures have made a great difference.

This will be noted in every such case, and last year's figures for Kingswood mentioned in order to give an idea how the picture would have been completed.

(a) *Common Lodging Houses.*

There are fifteen registered Common Lodging Houses in the Administrative County, six of these being in Cheltenham Borough and three in Stroud Urban District. All the houses except one were visited during the year, and a total of 97 inspections were made, 62 of which were in Cheltenham and 24 in Stroud. No special notes regarding conditions, or recommendations for improvements in Common Lodging Houses were made during the year. Last year Kingswood had no Common Lodging Houses.

(b) *Slaughter Houses.*

There are 293 registered or licensed slaughter houses in the County, exclusive of Kingswood, which last year possessed nine registered and eleven licensed slaughter houses. A total of 9,833 inspections were made during the year; and in 1936, 1,288 visits were made at Kingswood. These visits or inspections of slaughter houses include inspections of the conduct of slaughtering, meat inspection, etc., in addition to the inspection of the actual premises.

(c) *Offensive Trades.*

Information regarding the carrying on of offensive trades, and the number and situation of premises practising such trades has up to the present not been collected for the purpose of this report. An endeavour to do so will be made in the future.

(d) *Bake Houses.*

There are 309 bake houses registered in the Administrative County, exclusive of those in Kingswood, which last year numbered twelve. Of the 309, 282 were inspected during the year, 746 inspections being made. Last year fourteen inspections were made in Kingswood.

(e) *Workshops and Workplaces.*

There are 1,199 registered workshops or workplaces in the County apart from Kingswood (which last year had none). 767 were visited during the year and 1,056 inspections were made.

(f) *Outworkers' Residences.*

Ninety out-workers' premises are registered, exclusive of those in Kingswood, which last year numbered 69. Fifty-five out of the 90 premises are in Cheltenham; 86 were visited during the year, and 88 inspections made.

The number of inspections made in Kingswood is not known, but last year only two inspections of the 69 premises were made.

Inspection of these places is necessary to supervise the conditions under which home or outwork is carried on, points such as overcrowding, bad lighting, lack of water supply or closet accommodation and poor ventilation being especially attended to.

(g) *Tents, Vans and Sheds.*

Information regarding tents, caravans and sheds, which can be to some extent subjected to control by bye-laws, has not been collected hitherto for the

purpose of this report, but it is hoped to have some information regarding the number and situation of these "premises" in the County available for next year's report.

(h) *Canal Boats.*

No canal boats are registered in the County, but owing to the passage of boats registered in other districts through part of the County, it happens that twelve boats were inspected during the year, all in the Lydney Rural District.

**Smoke Abatement.**

Very little nuisance from smoke was reported during this year. At Cheltenham 59 observations were taken of chimneys from which complaints had been received, but action was only required in two cases. One factory promised to install new stoking apparatus and statutory action was not required, while another installed a new boiler and stoking apparatus after a statutory notice requiring the occupier to abate the nuisance had been served.

Two smoke nuisances were committed in the Mangotsfield Urban District, and notices to abate were served. Informal action with regard to a chimney at Tewkesbury was made; this, however, was ineffectual, there being little or no improvement, but as no complaints had been received it was deemed inadvisable to proceed with statutory action.

Among the Rural Districts, a complaint was received by the Cheltenham Rural District Council, and five observations of the chimney alleged to be a nuisance were made. No action was, however, found to be necessary and eventually the complainant wrote stating that no cause for complaint now exists.

In the Gloucester Rural District, one informal notice was sent, and the nuisance subsequently abated. Two nuisances were observed in the Stroud Rural District, one from a chimney at Chalford, the other at Inchbrook. The former was abated after informal representation and the latter resolved itself spontaneously.

In the Warmley Rural District some complaints were received and observations taken, but all the nuisances were satisfactorily dealt with by informal representation without statutory action.

**Sanitary Inspection.**

The volume of work concerned with sanitary inspection completed during the year in the various districts is enormous. Only a brief outline of this work can be recorded here, in the form of the following table.

It should be noted that it is difficult to draw a hard and fast line between inspections made under the Public Health Acts, and those made under the Housing Acts, for if it is a house that is being inspected, in distinction from say a drain, accumulation of refuse, or animal, the Sanitary Inspector will normally make his inspection both from the aspect of "Nuisances" under the Public Health Acts and "Defects" under the Housing Acts.

As far as possible, however, the following table contains particulars of all Sanitary Inspection exclusive of that concerned essentially with Housing.

	<i>Urban</i>	<i>Rural</i>	<i>Total</i>
	(Returns from local authorities not requested during 1937.)		
(a) Inspections made			
(b) Nuisances discovered by or reported to District Council :—			
Total ... ..	7,668	610	8,278
Swine only ... ..	2	33	35
(c) Complaints received ... ..	1,013	793	1,806
(d) Informal or Preliminary notices sent ...	395	760	1,155
(e) Statutory notices served ... ..	308	99	407
(f) Nuisances abated ... ..	5,739	681	6,420
(g) Summonses issued ... ..	2	12	14
(h) Convictions obtained ... ..	2	11	13

The figures for the Urban District of Kingswood were not available at the time of going to press, and are, therefore, not included in this table.

### Housing.

(This report does not include the figures for Kingswood Urban District, which were not available at the time of going to press.)

#### A. Inspection.

1. Total number of Dwelling Houses inspected for Housing Defects (either under Public Health or Housing Acts) ...	5,754
Number of inspections made ... ..	10,588
2. Number of houses included under above that were inspected under the provisions of the Housing Act, 1925, and the Housing (Consolidated) Regulations, 1925 ... ..	4,402
Number of Inspections made ... ..	8,389
3. Number of houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ...	859
4. Number of houses, exclusive of those referred to above, found not to be in all respects reasonably fit for human habitation ... ..	1,982

#### B. Remedy of Defects without service of Formal Notices.

Number of defective houses rendered fit in consequence of informal action by the local authority or its officers	475
--	-----

#### C. Statutory Action regarding Defects.

1. Number of houses in respect of which notices were served requiring repairs ... ..	338
2. Number of houses which were rendered fit after service of formal notices :—	
(a) By owners ... ..	258
(b) By local authority in default of owners ...	7
3. Number of houses in respect of which Closing Orders were made ... ..	29

4. Number of houses in respect of which Closing Orders were determined, the house having been rendered fit ... ..	15
5. Number of houses in respect of which Demolition Orders were made ... ..	194
6. Number of houses demolished in pursuance of Demolition Orders ... ..	114
7. Undertakings accepted by Council at formal proceedings under Section 11 H.A. 1930 ... ..	13
8. Improvement Area Declarations made by Councils and awaiting approval of Minister ... ..	—
9. Improvement Area Declarations made by Councils and rejected by Minister ... ..	—
10. Improvement Area Declaration made by Councils and confirmed by Minister ... ..	—
11. Clearance Area Declarations made by Councils and awaiting confirmation by Minister ... ..	15
12. Clearance Area Declarations made by Councils and rejected by Minister ... ..	—
13. Clearance Area Declaration made by Councils and confirmed by Minister ... ..	—

*D. Overcrowding. Housing Act 1936.*

1. (a) Number of dwellings overcrowded at the end of the year ... ..	913
(b) Number of families living therein ... ..	915
(c) Number of persons living therein ... ..	5,667½
2. Number of new cases of overcrowding reported during the year ... ..	92
3. (a) Number of cases of overcrowding relieved during the year ... ..	266
(b) Number of persons concerned in such cases ... ..	1,479½
4. Number of cases in which houses have again become overcrowded after steps had been taken for abatement ... ..	—

*E. New Houses.*

1. Total new houses erected during the year ... ..	2,155
2. New houses erected during the year with State Assistance under the Housing Acts:—	
(a) By local authority ... ..	660
(b) By other bodies or persons ... ..	579
3. New houses erected during the year without subsidy ... ..	916
	<hr/>
	2,155
4. New houses proposed during the year, to be erected under the Housing Acts ... ..	1,194
	<hr/>

## SECTION E.

## INSPECTION AND SUPERVISION OF FOOD.

## (a) MILK SUPPLY.

## MILK AND DAIRIES CONSOLIDATION ACT, 1915.

During 1937 reports concerning 95 farms in Gloucestershire were received from other local authorities as follows:—

<i>Authority</i>	<i>No. of Reports</i>	
Bristol C.B. ... ..	14	Tuberculosis.
Birmingham C.B. ... ..	3	..
Monmouth C.C. ... ..	3	..
Worcestershire C.C. ... ..	1	..
	21	
Bristol C.B. ... ..	74	Other conditions—excessive dirt, Brucella Abortus, etc.
	95	

**Tuberculosis in Milk.**

Investigations at the farms were made by the County Veterinary Staff, some 433 cows being examined and 88 samples of milk taken for examination. The final results gave evidence of Tuberculosis in nine cases, but in the other twelve cases no definite evidence was obtained.

**Other Conditions.**

These reports were referred to the District Medical Officers of Health who arranged for investigations by their Sanitary Inspectors. In some instances samples of milk were taken under the arrangements of the County Council whereby the County Council pay for the examination of such samples as are taken by the District Sanitary Inspectors in the interests of cleanliness of the milk supply.

**Supervision of Milk Production.**

The Sanitary Inspectors in 16 of the 22 Sanitary Districts took advantage of the County arrangements mentioned above, and submitted 297 samples of milk—some showed more interest than others, *viz.*:—in the Kingswood Urban District 64 samples were taken, in Stroud Urban District 46, and in Stroud Rural District 79. In the other Districts the numbers taken ranged from one in Cheltenham Rural District to 25 in Sodbury Rural District. No samples at all were taken in six Districts.

The following is the report of the Chief Veterinary Officer on work of the Veterinary Officers during the year:—

**SURVEY OF CATTLE:**

The following is a summary of the work carried out by the Veterinary Staff during 1937:—

1. *Milk (Special Designations) Order, 1936.*

## (a) "Accredited" Milk.

The District Veterinary Officers made 2,660 visits and examined 50,030 milch cows.

Total number of producers licensed on 31st December, 1937 :—

(i) For producing only ... ..	497
(ii) For producing and bottling ... ..	34
	531

Of the 2,339 samples of milk collected for bacteriological examination, 512 or 21.9 per cent. failed to comply with the prescribed standard, and in these cases repeat samples were collected.

## (b) "Tuberculin Tested" Milk.

Sixty-three herds were submitted to the half-yearly tuberculin test and clinical examination.

Total number of animals tested and examined ... ..	2,834
Number of animals which reacted to the test ... ..	97 or 3.42 per cent

Total number of producers licensed on 31st December, 1937 :—

(i) For producing only ... ..	58
(ii) For producing and bottling ... ..	18
	76

2. *Milk and Dairies Order, 1926.*

The District Veterinary Officers have made 1,630 visits to the premises of registered producers.

Total number of milch cows examined, 26,595.

3. *Tuberculosis Order, 1925.*

Number of cases examined by the Veterinary Staff ... ..	259
Number of cases not amenable to the Order ... ..	91
Number of cases found amenable to and slaughtered under the Order ... ..	168
Number of cases suffering from chronic cough ... ..	96
Number of cases suffering from tuberculosis of the udder ... ..	32
Number of cases suffering from tuberculous emaciation ... ..	40
Number of cases found, on post-mortem examination, to be suffering from advanced tuberculosis ... ..	116
Number of cases found, on post-mortem examination, to be suffering from not advanced tuberculosis ... ..	52

## (b) FOOD AND DRUGS ACTS.

The County Police are responsible for the administration of these Acts, and the following is a report on the work undertaken during the year by the County Analyst upon samples submitted to him.



## EXAMINATION OF FOOD AND DRUGS.

During the year ending 31st December, 1937, 1,010 samples were examined under the Food and Drugs (Adulteration) Act, 1928, of which 60 were adulterated or did not satisfy the various regulations issued under the Act. This represents 5.9 per cent. of the number taken which is an increase on the record low figure for last year, but is second lowest figure since 1925. The following table gives the percentages of adulterated samples for the past 13 years.

				<i>Per cent. adulterated</i>
1937	...	...	...	5.9
1936	...	...	...	4.2
1935	...	...	...	6.4
1934	...	...	...	10.6
1933	...	...	...	12.8
1932	...	...	...	12.1
1931	...	...	...	8.8
1930	...	...	...	8.9
1929	...	...	...	8.6
1928	...	...	...	10.8
1927	...	...	...	15.0
1926	...	...	...	12.6
1925	...	...	...	10.4

Average for 13 years 9.4 per cent.

**Milk.**

The number of milk samples submitted for examination was 663, of which 42 did not satisfy the standard laid down in the Sale of Milk Regulations by the Board of Agriculture for genuine milk. The number of adulterated samples is 6.3 per cent. of the number taken and is an increase on the figure for last year, but is still a considerable reduction on all previous figures for the past ten years.

The following table gives the figures for the past year with the averages for 1935 and 1936. These analyses show that the milk produced is well above the minimum standard laid down by the Board of Agriculture for genuine milk. There were many serious cases of adulteration and proceedings were instituted in 11 cases. Convictions were obtained in seven cases, two were dismissed under the Probation of Offenders Act, and the remaining two were dismissed.

		<i>Average for 1935 per cent.</i>	<i>Average for 1936 per cent.</i>	<i>Average for 1937 per cent.</i>	<i>Board of Agriculture Minimum Standard per cent.</i>
Non-Fatty Solids	...	8.79	8.94	8.96	8.50
Fat	... ..	3.66	3.68	3.65	3.00
Total Solids	... ..	12.45	12.62	12.61	11.50

The total amount imposed by the magistrates in fines and costs was £42 5s. 0d.

**Jam.**

One sample of Black Currant Jam contained a slight excess of Sulphur Dioxide Preservatives. Two other samples did not conform to the standard of the Jam Manufacturers Federation.

**Tincture of Iodine.**

One sample submitted did not conform to the standard of the British Pharmacopoeia.

**Malt Vinegar.**

One sample submitted was returned as unsatisfactory as it had not been brewed entirely from malt.

**Cream Cheese.**

Twelve samples of Cream Cheese were examined and eight of these were returned as unsatisfactory on account of the fact that they were soft cheeses which had been made from milk without the addition of any cream.

In my opinion a person buying Cream Cheese expects something which is richer in milk fat than ordinary cheese.

Owing to the absence of any legal definition for Cheese or Cream Cheese, it was decided that a prosecution would not be successful and therefore could not be pursued.

**Unfermented Grape Juice.**

There has appeared on the market during recent years an unfermented grape juice which has been concentrated by evaporation in vacuo, and in my opinion this article should come under Item 4, of the Schedule attached to the Public Health (Preservatives, etc., in Food) Regulations where Benzoic Acid only is allowed as a preservative. These samples contained Sulphur Dioxide as a preservative, and on referring the matter to the Ministry of Health, they intimated that this article should come under Item 5 which only includes "Other non-alcoholic wines, etc. . . . ." Item 4 includes "Unfermented grape juice and non-alcoholic wines made from grape juice." Therefore, in my opinion these samples of Unfermented Grape Juice should come under this Section.

The samples examined were as follows:—

	<i>Number Examined</i>	<i>Number Adulterated</i>
Milk and Separated Milk ... ..	663	42
Butter, Cream, Ice Cream, Cream Cheese	59	8
Margarine ... ..	19	—
Lard ... ..	2	—
Spirits and Wines ... ..	14	—
Beer and Cider ... ..	48	—
Non-alcoholic Drinks, Mineral Waters and Cordials ... ..	28	5

*Carried forward*

*Brought forward*

	<i>Number Examined</i>	<i>Number Adulterated</i>
Tea, Coffee, Coffee Extract, and Cocoa ...	21	—
Jam, Marmalade, Jellies, Gelatine, Honey, Sugar, Golden Syrup and Treacle ...	48	3
Drugs ... ..	24	1
Pickles and Sauces ... ..	4	—
Sausages and Meat Paste ... ..	25	—
Cornflour, Ground Rice, Flour ... ..	14	—
Dried Fruit ... ..	11	—
Malt Vinegar ... ..	13	1
Ground Ginger ... ..	5	—
Condensed Milk ... ..	9	—
Sweets ... ..	3	—
	<b>1,010</b>	<b>60</b>

*(c) NUTRITION.*

A special section of the Travelling Health Exhibition is devoted to the subject of nutrition, and during the tours of the exhibition, lectures and demonstrations on this subject have been undertaken.

Included in the nutrition exhibit are a chart showing the various food constituents and their relative effect upon growth, production of heat and energy, protection against disease, etc.; samples of various foodstuffs and models to illustrate their relative composition as to protein, carbohydrate, fat, vitamins, etc., and their utility in the production of growth, heat and energy, protection against disease and the maintenance of health; exhibits of packed lunches for school children, and meals illustrating the practical application of the principles embodied in the chart for every day purposes.

A milk section also forms part of the Exhibition and is in the charge of the organiser of the National Milk Publicity Council. Talks and demonstrations on the value of milk as a food are carried out, and various exhibits showing comparative values in relation to other foodstuffs are included in this section.

A series of lectures on Nutrition was arranged during the year through the Women's Institutes, and approved Speakers were engaged and their fees and expenses paid for by grant from the County Council. A conference of lectures was held prior to the series of meetings, and the whole subject was discussed with a view to securing some degree of uniformity in the teaching afforded.

The lectures were well attended and much appreciated in the areas where they were undertaken, and a further series of similar lectures will be held during next year.

## SECTION F.

## MATERNITY AND CHILD WELFARE.

**Maternity Services.**

The framework of the maternity services has remained much the same during 1937, but considerable attention has been given by the Maternity and Child Welfare Committee to development of the work in certain directions and to ensuring that the facilities available are made known to all doctors, midwives and mothers. The Midwives Act, 1936, came into force in July, 1937, and the County Council delegated to the County Nursing Association the provision of an adequate domiciliary midwifery service. Many adjustments have had to be made and several district associations have been reorganised. A sum of money was paid to the County Nursing Association by agreement from which financial assistance was given to local associations in respect of the increased salary required to be paid to district nurse midwives and for the purpose of providing transport and relief nurses, and the County Nursing Association appointed an additional assistant superintendent, three full time midwives in areas not sufficiently covered by local associations, and undertook to set up a reserve staff of nurse-midwives for emergency purposes. It will take some little time for all the arrangements to be completed and entail considerable thought and work on behalf of the Executive Committee of the County Nursing Association and the administrative staff. The District Nursing Associations' Committees have co-operated very helpfully in the new proposals which may have seemed somewhat confusing at the commencement.

**Child Welfare Services.**

The number of child welfare centres in the County is now 56 owing to the opening of new centres during the year at Pilning and Chipping Sodbury—both centres serving a wide area and meeting with immediate response. There are still certain populous districts without the advantage of a centre as well as some rural districts where the formation of a centre would be difficult and where the problem is met as far as possible by the provision of transport from outlying villages to a well-run centre in a larger village—this being a more satisfactory method both economically and administratively. The voluntary committees of the centres are alive to the importance of the work—much attention is paid to the child over two years of age, and most of them attend regularly until they go to school. Except in one or two of the larger centres there is no special "toddlers clinic" held, but the children are examined by the medical officer two or three times a year. Owing to the help of the County Federation of Child Welfare Centres it is possible to keep the educational work at the centres well to the fore, and talks on specified subjects are arranged and on the whole are appreciated by the mothers. Several centres have organised exhibitions and competitions for mothers and fathers. It has not been possible for visits to be paid to centres by the medical staff as often as is desirable, and it is hoped that this will be remedied during 1938. The visits are appreciated by the helpers who are glad of suggestions and advice.

Home visiting is an important part of the child welfare services and is chiefly undertaken by the district nurses. In some areas where the nurses have much midwifery and general work the health visiting is not carried out as systematically as it should be, but the attention of the nurses is constantly directed to this end.

In the Forest of Dean and in the Kingswood and Staple Hill areas the home visiting is carried out by full time Health Visitors, as it is also in certain other parts where the district nurse cannot undertake the work.

The treatment of conditions arising in young children is undertaken by the Medical Services Committee in appropriate cases. No treatment is given at the welfare centres, but children requiring treatment are referred to the private doctor or to the treatment centre where Specialists attend for various approved conditions.

Details of the various branches of the services are given under the appropriate headings following.

### Maternity Services.

#### 1. Midwifery Services.

During the year 259 midwives notified their intention to practise in the County—nine were employed in the County Council's Institutions, 189 were employed by voluntary associations and 61 were in private or hospital practice. 232 were resident in the County and 27 lived outside the County boundary. Of this number 256 have the certificate of the Central Midwives Board—two others hold other qualifications in midwifery and one only is a *bona fide* midwife.

The position at end of 1937 was as follows:—

	Parishes	Area	Population
(a) Covered by District Nursing Associations:			
(i) Affiliated to Gloucestershire County Nursing Association ... ..	297	751,503	270,487
(ii) Affiliated to other C.N.A.	2	1,581	1,089
(b) Covered by independent midwives ... ..	5	14,028	8,572
(c) With no certified midwife ... ..	1	1,719	93
Number of registered births, live and still, excluding Cheltenham Municipal Borough ... ..			4,569
Number of births attended by midwives:—			
(a) As midwives ... ..			2,748
(b) As maternity nurses ... ..			1,196
			3,944
Percentage of cases attended by midwives ... ..			60

#### 2. Returns from Midwives.

##### Medical Help Notices:—

Mother—Pregnancy ... ..	287
Labour ... ..	890
Lying-in ... ..	148
	1325
Baby ... ..	267
Death of Baby ... ..	22
Stillbirths ... ..	52
Artificial feeding ... ..	104
Source of infection ... ..	38
Laying out of dead body ... ..	231
Change of address ... ..	92

The number of cases in which medical help was called in—57%—is somewhat high. The chief cases were—in the mother—Ruptured Perinaeum 328—Delayed labour 273—Toxaemia 155—Rise of Temperature 79—Abortion 57; in the Baby—Discharging eyes 119—Deformities 41—Feebleness 40.

There is a tendency with some midwives to call in medical help too frequently, but in the majority of cases the doctor's aid is required under the Central Midwives Board Rules, and especially in the cases of ruptured perinaeum the necessary attention is given even to slight cases and later complications are prevented.

### 3. *Supervision.*

Routine supervision of midwives is carried out by the seven County Health Superintendents each with their own district, and the Superintendent and Assistant Superintendent of the County Nursing Association. Each midwife is visited quarterly, when her records and appliances are inspected, and if possible, visits to her cases are paid so that some knowledge of her standard of work may be obtained. Special visits are also paid when the midwife notifies a case of rise of temperature or of discharging eyes.

The Supervisors paid 806 routine visits during the year, 45 midwives being visited on more than four occasions. In addition, 243 special visits were made.

The Supervisors report that on the whole the average standard of work of the midwives is satisfactory, and that they are appreciative of the help and advice given.

### 4. *Ante-natal Supervision.*

(a) *Domiciliary.* The County Council's arrangements for the examination of booked midwifery cases twice during the pregnancy have continued, and a large number of women are availing themselves of this service. The midwives find it a great help to them and in many cases treatment or admission to hospital is advised by the doctor which results in the improved health of the patient. The Council has agreed that during 1938 the scheme may be extended to cover a post-natal examination.

(b) *Clinics.* There are four ante-natal clinics in the County—those at Cinderford, Lydney and Northleach being held monthly, and the one at Soundwell, fortnightly. Patients who have no private doctor or who desire for some special reason to attend the clinic are seen regularly. In addition many patients are referred to the clinics of other authorities at Cheltenham, Gloucester, Chepstow and Bristol. In addition to the medical examination of patients much useful educational work is done at clinics, and help is given to the mothers in many directions. During the latter part of the year the Committee agreed that accessory food substances—such as preparations of iron, calcium and vitamins should be available for those patients in poor general condition for whom the medical officer considered such administration would be of benefit.

The Clinics also offer post-natal examination to the patients, but the result of this is disappointing—the nurses reporting that once the baby is born the mothers do not see the need for further attendance. Stress is laid on this beforehand, and

it is hoped that, by education, the mothers will regard post-natal examination as the completion of the pregnancy and confinement.

		<i>No. of attendances</i>	<i>No. of patients</i>
Ante-natal—at all clinics during 1937	...	855	517
Post-natal—at all clinics during 1937	...	54	37
Examined by general practitioners	...		2,192

The records show that 68 per cent. of the total notified births had special ante-natal examinations.

### 5. *Maternity Admissions.*

(a) The County Council has an agreement with various hospitals and maternity homes to accept maternity cases which are recommended for hospital treatment. The number of cases admitted has increased again this year, and some difficulty is often experienced in obtaining accommodation near the patient's house. A new maternity unit of seven beds has been opened in Lydney District Hospital which has eased the position in the Forest of Dean, but from the Cheltenham Rural District and the growing area of Patchway and Filton it is sometimes necessary to send cases a long way. During the year 305 cases were admitted to hospitals—of these, 74 were recommended from the various ante-natal clinics and 31 by doctors as a result of their examination under the Ante-natal Scheme.

The main causes of admission were :—

Contracted pelvis 46, Toxaemia 41, Previous history 18, Prolonged labour 11, Heart disease 9, unsatisfactory home conditions 56 and Puerperal pyrexia 17.

(b) *The Cotswold Maternity Home.* The Council Hospital, Tetbury, which had been closed down in November, 1936, was re-opened in August, 1937, to accommodate only maternity cases and young children. In view of the need for prolonged ante-natal treatment in many cases, the Committee set aside a ward of 6 beds on the ground floor for such cases. There is also accommodation for eight maternity cases and a labour room and an isolation ward. Having been assured that there was a demand in the district for single bed wards in which a patient could be attended by her own doctor, the Committee at the end of the year, agreed to one of the first floor wards being converted into two single bed wards, and this has been done.

Dr. Leeper Dunlop was appointed Medical Officer of the Hospital, and he has expressed himself satisfied with the staff, equipment and general conditions. A matron, staff-midwife and three probationers with a domestic staff were appointed in August and subsequently a sister, another staff midwife for night duty and another probationer were added to the staff. Extensive redecorations have been made to the hospital and new equipment obtained, and the hospital is now adequately staffed and equipped for all maternity work. There is a Children's Ward of eight beds for the reception of cases of marasmus, rickets and similar conditions.

Having regard to the criticism expressed of the title "The Council Hospital" the County Council have redesignated the building "The Cotswold Maternity Home and Children's Hospital" with the consent of the Registrar-General.

During the five months which the hospital was open in 1937, 23 maternity cases were admitted—the average duration of stay being 19.4 days.

#### 6. *Consultant Services.*

The County Council has for some years maintained a Consultant service whereby doctors may obtain the assistance of a Consultant from one of the general hospitals in cases presenting difficulty during pregnancy, labour or the puerperium. This assistance is used mainly in cases of puerperal pyrexia, but occasionally a Consultant is called to a case of difficult labour, and in one case during the year a Pathologist was required to give a blood transfusion. In all, 11 requests were made for the services of a Consultant, but in some instances, the doctor communicated with the Consultant by telephone, who, on hearing particulars of the patient's condition, advised her immediate removal to hospital without going to see her at her home.

The County Council has agreed that in 1938 an emergency outfit containing the equipment which might be required by a Consultant in serious cases shall be available at three centres in the County.

#### 7. *Dental Treatment.*

An important adjunct to the health of mothers is the care of their mouths and teeth, and many expectant mothers are recommended for dental treatment. This is carried out by the County Dental Surgeons at the four clinics equipped for such work. Dentures are provided where necessary and are paid for almost entirely by the mothers.

Number of new cases 1937	...	...	257
„ „ old cases 1937	...	...	296
„ „ all attendances	...	...	936
„ „ anaesthetics—local	...	...	63
general	...	...	409
„ „ cases completed	...	...	164
„ „ cases in which assistance to- wards payment was given by the County Council	...	...	19

#### 8. *Assisted Milk Supplies.*

It is now recognised that milk is the most beneficial single food substance which can be taken by expectant or nursing mothers, and on the recommendation of the midwife or doctor free supply of 1 pint daily is given to those women in whose cases the family income is within the scale agreed by the County Council. The mothers are usually supplied with milk during the last three months of pregnancy and the whole of the nursing period, but in certain conditions the period in pregnancy may be extended. Milk is also supplied to children under 5 when considered to be necessary.

The figures following state the total amount of milk and dried milk supplied, as information for each type of case is not available :—



No. of new applications	...	...	...	900
„ „ renewals	...	...	...	3,749
„ „ gallons of milk supplied	...	...	...	14,183
„ „ lbs. of dried milk supplied	...	...	...	985

### 9. *Maternal Mortality.*

During the year 13 women resident in the County died from conditions directly or indirectly arising from the pregnancy or confinement. This gives a mortality rate of 2.54, i.e., 2.54 deaths per 1,000 births. The Registrar-General's figure for the country as a whole is 3.11. This is a lower rate than has been reached for many years and for which it would appear that the efforts made to safeguard the health of mothers are producing some result. There is a tendency in the country for the condition of puerperal sepsis to be less acute. One of the chief complications found in this county is toxæmia and eclampsia: this is considered a preventable condition, but many of the cases arise suddenly without previous indication and make it extremely difficult for the appropriate treatment to be of any avail.

In five cases the woman herself contributed to the final result, either by making no arrangements for the confinement (3 cases) or by refusing the treatment offered (2 cases).

Confidential reports are sent to the Ministry of Health in each case, and this affords the opportunity for discussion with the doctors and midwives concerned and is very helpful.

The causes of death were as follows:—

Puerperal sepsis	...	...	4
Eclampsia	...	...	4
Haemorrhage	...	...	2
Malpresentation	...	...	1
Uraemia	...	...	1
Pulmonary Embolism	...	...	1

Two of the deaths, one from Haemorrhage and one from Embolism occurred in Cheltenham Municipal Borough.

There were also two deaths of mothers following confinement, and one following an Abortion, but the primary cause of death in these cases was not considered to be puerperal, but was due to other conditions viz., Pneumonia (2) and Tuberculosis (1).

### 10. *Puerperal Pyrexia.*

Thirty-six cases of puerperal pyrexia were notified by general practitioners during the year. In 79 cases midwives called in a doctor on account of rise of temperature, but in only 19 of these cases was a notification subsequently made. Seventeen of the cases were removed to hospital under the County Council arrangements and there was one death. Enquiries are made into each case, and the condition usually clears up quickly under the improved methods of treatment which are available these days.

### 11. *Abortions and Still Births.*

There were 57 abortions and 52 still births notified by midwives during the year. The information obtainable concerning both conditions is not helpful in ascertaining the main cause. Enquiry is made into every still birth and in view of the Inter Departmental Committee set up to deal with the problem of Abortion, more extensive investigation will be made next year into cases of Abortion.

### 12. *Discharging Eyes.*

There were 119 babies for whom medical aid had to be called in by the midwives on account of discharge from one or both eyes. Enquiry was made into every case and the condition rapidly cleared up, except in 19 cases in which notification was sent that the child was suffering from the more serious complaint of Ophthalmia Neonatorum. Five children were removed to hospital for special treatment, but in no case was the sight in any way affected.

### 13. *Circular 1622—Ministry of Health.*

The Maternity and Child Welfare Committee gave close consideration to this Circular which was issued following the Report to the Minister of Health on Maternal Mortality. The Committee considered that the range of services available in the County was largely covering the grounds advocated in the circular and recommended that certain extensions should be made during 1938 as follows :

1. Provision of emergency outfits for the use of doctors and Consultants.
2. The extension of the ante-natal scheme to include a post-natal examination.
3. Outfits of sterilised dressings to be available for midwives in necessitous cases.
4. Home helps to be provided in certain areas where no relative or friend could be found to look after the mother and home during the lying-in period.

### 14. *Fees paid in connection with midwifery services.*

Apart from the sum of money paid by agreement to the County Nursing Association under the Midwives Act, 1936, certain fees are paid in other respects.

- a. To general practitioners for their attendance when called in by midwives—Claims were received in respect of 1,051 patients: a total cost of £1,713.
- b. To independent midwives or nursing associations a fee of 10/- per case is paid when a patient who has engaged a midwife is removed to hospital on the recommendation of a doctor. Thirteen such cases were approved at a cost of £6 10s. 0d.
- c. To midwives or associations a fee of 25/- is paid where the husband is out of benefit and is not able to pay any fee for the midwife's service. Sixteen cases were approved at a cost of £20.



## Additional Services undertaken by the Maternity and Child Welfare Committee.

### 1. Registered Nursing Homes.

The registration of private Nursing Homes is delegated to the Maternity and Child Welfare Committee, and visits of inspection are made by the Maternity and Child Welfare Officer. Two applications for registration were received during 1937, both of which were approved. One Home was given up, as the midwife in charge was appointed a full time midwife of the County Nursing Association and one other was closed. There are now 19 homes under supervision—three of which have not taken patients for over 12 months. Visits should be paid regularly to these Homes, but it has not been possible to do this as frequently as is desirable. Most of the Homes charge moderate fees and the accommodation and attention is reasonably satisfactory and no adverse reports have been received by doctors who send patients to these homes. 13 Voluntary hospitals are granted exemption from inspection annually.

### 2. Infant Life Protection.

All foster-mothers are required to give notice that they intend to take charge of a child under 9 years of age apart from its parents, and, except in cases of emergency, the home is inspected before the child arrives. Visits are then paid monthly by the District Nurses or Health Visitors, and in cases of difficulty by the Maternity and Child Welfare Medical Officer. The standard of home varies considerably, but on the whole, having regard to the small sums of money paid either by the child's parent or by voluntary bodies, the care and attention given to the children is adequate, and in some cases remarkably good. At the end of the year there were 175 children in the care of 132 foster parents.

## SECTION G.

### GENERAL.

#### 1. Tuberculosis.

##### NEW CASES AND MORTALITY DURING 1937.

Age Period	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0	—	—	—	3	—	1	1	4
1	—	—	16	10	—	1	6	3
5	4	7	31	20	1	—	1	2
10	7	7	24	11				
15	15	13	7	5	12	15	3	2
20	23	23	1	2				
25	31	47	6	11	20	26	4	5
35	31	23	8	4	20	13	3	3
45	22	16	5	3	25	8	—	3
55	8	9	1	2	9	8	1	1
65 and upwards	6	9	—	—	7	6	—	1
Total	149	154	99	71	94	77	19	24

The following is a summary of the cases on the Register of notifications in 1937 :—

	<i>Pulmonary</i>	<i>Non-Pulmonary</i>	<i>Total Cases</i>
Number of cases removed from Register during year by reason of :—			
(a) Withdrawal of Notification	6	6	12
(b) Recovery from the disease	57	95	152
(c) Death ... ..	187	40	227
(d) Left County ... ..	53	35	88
Number of cases remaining on Register at 31st December, 1937 ... ..	1,461	1,047	2,508

#### *Dispensaries.*

The Tuberculosis Officers attend weekly at six dispensaries and periodically visit fifteen out-stations. They also see patients unable to attend at one of these places in their homes and hold frequent consultations with the usual medical attendants.

The total new cases reported and the attendances at dispensaries were :—

New cases reported			
Pulmonary ... ..	...	...	347
Other Forms ... ..	...	...	170
			517
Total ... ..	...	...	517
New cases examined (including contacts) ...	...	...	1,242
Attendances ... ..	...	...	5,588

#### *Shelters.*

The number of shelters in use during 1937 was 112. The number of patients to whom they were newly loaned during the year was 20, and the total persons who had the use of a shelter during 1937 was 112.

#### *Residential Institutions.*

Owing to the rebuilding of the men's section of the Standish House Tuberculosis Institution during 1937, accommodation for male patients was found in the City Hospital at Over. The number of admissions to Institutions—Sanatoria and Hospital—during 1937 was :—

Pulmonary :—			
Adults—Male ... ..	...	...	101
Female ... ..	...	...	96
			197
Children ... ..	...	...	35
Non-Pulmonary :—			
Adults—Male ... ..	...	...	26
Female ... ..	...	...	15
			41
Children ... ..	...	...	86
			359
Total ... ..	...	...	359

*Compulsory Powers.*

No case was removed compulsorily to a Sanatorium or Hospital under Section 62 of the Public Health Act, 1925, during the year, and, so far as information has been given, no action was taken under the Public Health (Prevention of Tuberculosis) Regulations, 1925, with respect to employees in the milk trade.

*Home Visits by Nurses.*

The work of the Tuberculosis Officers is supplemented by visits to the homes of patients by nurses with a view to their directions being carried out and to improvements in the conditions under which the patients are living. The nurses undertaking this work in 1937 were the seven County Health Superintendents, five whole time Health Visitors, and 137 District Nurses.

The numbers of these visits have increased from 4,578 in 1917 to 10,654 in 1937.

**2. Venereal Diseases.**

The following Table shows the numbers of County cases coming under treatment during 1937 at the various Treatment Centres serving Gloucestershire.

<i>Treatment Centre at</i>	<i>New Cases</i>					<i>All Cases</i>		
	<i>Syphilis</i>	<i>Soft chancre</i>	<i>Gonor- rhoea</i>	<i>Not Venereal</i>	<i>Total</i>	<i>Attendances</i>	<i>In-Pt. Days</i>	<i>Specimens exd.</i>
Cheltenham ...	25	—	54	27	106	4,601	319	497
Stroud ...	9	1	36	6	52	341	—	—
Gloucester ...	10	—	36	6	52	1,286	101	159
Bristol ...	8	—	35	18	61	966	136	368
Oxford ...	—	—	1	—	1	50	—	5
Swindon ...	1	—	1	—	2	13	—	—
<b>Total ...</b>	<b>53</b>	<b>1</b>	<b>163</b>	<b>57</b>	<b>274</b>	<b>7,257</b>	<b>556</b>	<b>1,029</b>

**3. Cancer.**

The following are the deaths from Cancer in the area by age distribution. The figures shown are the aggregates of Urban and Rural areas.

<i>Age Group</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
5-15 years ...	—	2	2
15-25 years ...	—	1	1
25-35 years ...	6	6	12
35-45 years ...	10	15	25
45-55 years ...	27	44	71
55-65 years ...	52	75	127
65-75 years ...	117	89	206
75 and over ...	61	94	155

There have been no changes during the year in the available facilities for the diagnosis and treatment of Cancer in the area. Arrangements are in force for a contribution by the County Council of one guinea per week towards the cost of in-patients treated by radium at the Bristol Royal Infirmary.

#### 4. Welfare of the Blind.

The following are extracts from the Annual Report of the County Association for the Blind, which is the agent of the County Council for the care of the Blind in the County.

##### *Amended Regulations.*

“On the recommendation of the Executive Committee, the County Council has amended the regulations for the administration of Domiciliary Assistance to necessitous Blind Persons. Weekly grants have been raised to make the income up to 17/6 with benefits, and to £1 in special cases, the former weekly rate being 15/- with benefits and 17/6 in special cases.

##### Registration :—

Total on Index on March 31st, 1938	...	...	584
Loss by death	...	...	45
Removals	...	...	11
New Cases	...	...	39

Thirty-two cases were certified by Ophthalmic Surgeons as being “Blind within the meaning of the Act.” About 134 cases of partial blindness are kept under observation by the Home Teachers, and helped by them to attend the Hospitals and Clinics for examination by Ophthalmic Surgeons.

##### *Education.*

There are three Blind children under five years old in the County, two of whom are at the Sunshine Home at East Grinstead thanks to the generosity of Gyde’s Charity. The other child is at home.

Of the 12 children under 16, six are at Blind Schools, one has been at the Blind School during part of the year and is now at home with his parents, one is in a mental asylum, one is epileptic and paralysed, one crippled boy has lessons by his bedside in hospital, another crippled boy has a blind tutor at home, and has been helped by the Board of Education and Gyde’s Charity, while the parents of the remaining child refuse to allow him to go to a Blind School.

There are ten children between 16 and 21. Of these, one is at the Royal Normal College, five are undergoing training, while another is unfit for training, but is working at home as far as her health will permit, two are employed and one is a cripple.

Of the two adult trainees, one young man of 22 has been accepted as a Student at the School of Massage run by the National Institute for the Blind, the other is being trained in basketry at Birmingham.

##### *Glos. Fund for the Blind.*

This year the Association has again received a higher amount than ever before from the collections undertaken by Mr. King Cummings on behalf of the joint fund of the Glos. County Association for the Blind, and the National Institute for the Blind. This is a particularly noteworthy achievement in Coronation Year when the Public had so many

calls on its pocket. Mr. King Cummings and his staff must have worked harder than ever to have passed last year's splendid total. The actual amount received was £1,154 19s. 2d. In addition we wish to thank all those who have helped in organising Whist Drives, Emblem Days, Envelope Collections, etc.

#### *Grants and Pensions.*

The Committee expresses its deep gratitude for the Pensions and Grants received from various Societies for the Blind. Gyde's Trust, in addition to paying the fees for two Blind Babies at the Sunshine Home, has again given a donation of £50 for the care of Blind Children.

Received during the Year :—

Gardner's Trust for the Blind	...	...	...	1
Hetherington Pensions for the aged Blind	...	...	...	6
Royal Blind Pension Society	...	...	...	1

In addition to these pensions, special grants of £70 and £5 have been received from Gardner's Trust, a Samaritan Grant of 10/- per month from the Royal Blind Pension Society, and £70 from the National Institute for the Blind.

#### *Home Teaching Service.*

Miss Brain has obtained the Home Teacher's Certificate with honours in chair-caning and rush-seating.

There have been no alterations in the Home Teachers' areas. The numbers on March 31st, 1938, were :—Miss Bedford, 155 Blind and 42 Watching cases; Miss Hobbs, 175 Blind and 28 Watching cases; Miss Wynn Lloyd, 157 Blind and 46 Watching cases; and Miss Brain (half-time), 97 Blind and 18 Watching cases. During the year 5,799 visits have been paid to Blind people and 528 lessons given in embossed types and pastime handicrafts. The visits and lessons are eagerly awaited and much appreciated.

#### *Necessitous Blind.*

The Case Committee has met quarterly and has considered between 210 and 230 cases at each meeting. A larger number of new cases than usual were considered in September owing to the alteration in the scale of Domiciliary Assistance already referred to. Grants amounting to £4,203 9s. 11d. have been administered by about 120 Almoners, to whom the Committee extends its sincere thanks for their valuable work. Of this sum £670 8s. 8d. has been granted to the Sighted Dependents of Blind Persons.

#### *Coronation Celebrations.*

In commemoration of His Majesty King George VIth's Coronation, every Blind person receiving Domiciliary Assistance had a special gift of 2/-. In addition, many received gifts from their respective towns and villages and took part in teas and entertainments. A special effort was made



in order that as many Blind people as possible might have the opportunity of listening to the Coronation Broadcast, and this was very much enjoyed, particularly by those who were unable to leave their homes.

#### *Cinemas.*

Special facilities for Blind people visiting Cinemas with guides have been granted by the Albany Ward Theatre Company at their Cinemas at Cheltenham, Cirencester and Stroud. We are most grateful for this consideration.

#### *Sales of Work.*

During the year £178 16s. 2d. worth of goods made by the Blind in their own homes were sold either at Sales of Work or privately through the Home Teachers. This figure does not include work made at Cheltenham Workshops or disposed of by the Blind themselves.

Very successful Sales of Work were held by the kindness of Professor and Mrs. Miles Walker at Amberley, and at Chipping Campden where the Vicar and Mrs. O'Loughlin were our kind hosts. Stalls were also held at Cheltenham Rose Show, Frampton Cotterell Miners' Charity Show, Littledean Flower Show, and the following Women's Institutes kindly allowed us to sell goods at a meeting, Mitcheldean, Hempsted and Prestbury. Work was also sold at the Queen's Hotel, Cheltenham and at Stroud. The Blind and all who work for them are most grateful to those who make these Sales possible by giving teas, lending houses and gardens, sending out notices, etc. Without such efforts the workers at home would find it hard to dispose of their goods.

#### *Social Centres.*

The Committee wish to thank all those who help run the Social Clubs or who have provided entertainments at them during the year. Also those who gave parties during the summer and "Toc H" and the Dicken's Fellowship who gave delightful parties to the Cheltenham Blind at Christmas.

Clubs are now held regularly at the following centres:—Cheltenham, Charfield, Cinderford, Cirencester, Coleford, Kingswood and Stroud. The Cinderford Club was re-opened in the Autumn after having been closed for a time. It has been very well attended during the Winter, and has proved a great success. As one result of its re-opening a Wireless Discussion Group met in the Winter at the Home of one of the Blind. This has proved a most useful experiment which we hope to repeat.

Kingswood Club has completed one year of life and has also been well attended.

During the Summer Cirencester Club visited Stroud and Stroud Club made a return visit to Cirencester. On each occasion the Blind Hosts provided the entertainment, both were excellent. All the Clubs have appreciated the gift of games which has recently been made from the Hextall Bequest."

### 5. National Health Campaign.

The County Council took an active part in local activities in connection with the National Health Campaign.

Quantities of literature dealing with each phase of the Campaign were distributed through the agency of various voluntary organisations, schools, district councils, etc. Health talks were given at various centres throughout the County, and speakers supplied to various organisations, Women's Institutes, Social Clubs, etc.

A series of ten public meetings with Cinematograph displays will be held early in 1938 in co-operation with District Councils and the National Milk Publicity Council.



TABLE I. BIRTHS AND DEATHS.

DISTRICT	Estimated Population	BIRTHS						DEATHS											
		Live Births			Still Births			TOTAL		Under 1 Year			Infantile Mortality Rate						
		Legitimate	Illegitimate	Total	Rate	Legitimate	Illegitimate	Total	No.	Rate	Legitimate	Illegitimate		Total					
<b>Urban.</b>																			
Cheltenham M.B. ...	51,420	636	45	681	13.2	25	1	26	832	16.2	35	3	38	56					
Charlton Kings ...	5,017	80	1	81	16.1	2	—	2	69	13.8	4	—	4	49					
Cirencester ...	7,988	86	2	88	11.0	2	—	2	113	14.1	4	1	5	57					
Kingswood ...	15,270	259	5	264	17.3	15	1	16	158	10.3	14	—	14	53					
Mangotsfield ...	14,000	228	5	233	16.6	7	—	7	192	13.7	10	1	11	47					
Nailsworth ...	3,248	38	1	39	12.0	2	—	2	47	14.5	—	—	—	—					
Stroud ...	14,100	156	4	160	11.3	12	1	13	161	11.4	5	—	6	37					
Tewkesbury ...	4,357	51	—	51	11.7	—	—	—	68	15.6	3	—	3	59					
<b>TOTAL</b>	115,400	1,534	63	1,597	13.8	65	3	68	1,640	14.2	76	5	81	51					
<b>Rural.</b>																			
Cheltenham ...	15,130	198	14	212	14.0	6	—	6	211	13.9	8	1	9	42					
Cirencester ...	11,790	164	10	174	14.8	4	—	4	151	12.8	4	—	4	24					
Dursley ...	14,400	247	4	251	17.4	15	—	15	213	14.8	12	—	12	48					
East Dean ...	19,170	305	8	313	16.3	12	—	12	274	14.3	19	—	19	61					
Gloucester ...	22,840	342	22	364	15.9	19	—	19	262	11.5	11	1	12	33					
Lydney ...	10,610	149	3	152	14.3	4	1	5	140	13.2	4	—	4	26					
Newent ...	7,220	108	5	113	15.7	5	1	6	107	14.8	6	—	6	53					
North Cotswold ...	15,220	211	11	222	14.6	8	—	8	227	14.9	9	2	11	50					
Northleach ...	7,292	93	5	98	13.4	3	—	3	79	10.8	2	—	2	20					
Sodbury ...	27,380	460	12	472	17.2	14	1	15	309	11.3	14	—	14	30					
Stroud ...	21,460	295	10	305	14.2	13	—	13	320	14.9	10	1	11	36					
Tetbury ...	5,915	87	6	93	15.8	3	1	4	66	11.2	5	—	5	54					
Thornbury ...	18,530	271	16	287	15.5	16	1	17	244	13.2	13	1	14	49					
Warmley ...	9,133	138	4	142	15.6	5	—	5	101	11.1	5	1	6	42					
West Dean ...	17,510	255	11	266	15.2	14	1	15	238	13.6	17	—	17	64					
<b>TOTAL</b>	223,600	3,323	141	3,464	15.5	141	6	147	2,942	13.2	139	7	146	42					
<b>Administrative County</b>																			
<b>Total</b>	339,000	4,857	204	5,061	14.9	206	9	215	4,582	13.5	215	12	227	45					

TABLE II. 1937.

DISTRICT	Population	Scarlet Fever			Diphtheria			Enteric Fever			Puerperal Fever			Puerperal Pyrexia			Pneumonia		
	Estimated to mid. 1937	Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths
<b>Urban.</b>																			
Cheltenham M.B. ...	51,420	76	63	-	18	18	1	1	1	-	-	-	-	6	3	-	24	-	47
Charlton Kings ...	5,017	1	1	-	2	2	-	1	-	1	-	-	-	2	2	-	5	-	-
Cirencester ...	7,988	1	1	-	3	2	-	-	-	-	-	-	-	-	-	-	8	3	3
Kingswood ...	15,270	62	21	2	54	35	1	-	-	-	1	-	-	2	1	-	2	1	7
Mangotsfield ...	14,000	85	37	1	4	4	1	-	-	-	-	-	-	1	-	-	2	1	7
Nailsworth ...	3,248	1	1	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-
Stroud ...	14,100	13	15	-	7	-	-	-	-	-	-	-	-	1	-	-	6	15	4
Tewkesbury ...	4,357	9	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
TOTAL U.D. ...	115,400	248	147	3	88	61	3	2	1	1	1	-	-	13	6	-	48	20	73
<b>Rural.</b>																			
Cheltenham ...	15,130	11	6	-	1	2	-	1	1	-	-	-	-	1	-	-	4	-	6
Cirencester ...	11,790	7	5	-	-	-	-	-	-	-	-	-	-	1	-	1	9	2	5
Dursley ...	14,400	27	19	-	4	4	1	-	-	-	-	-	-	1	1	-	4	-	7
East Dean ...	19,170	38	32	-	25	11	-	-	-	-	1	-	-	2	1	-	13	-	10
Gloucester ...	22,840	20	17	-	8	8	-	2	2	-	-	-	-	3	1	-	23	13	9
Lydney ...	10,610	19	18	-	2	2	-	-	-	-	1	-	-	1	-	-	9	-	8
Newent ...	7,220	6	5	-	15	15	1	-	-	-	-	-	-	-	-	-	4	-	5
North Cotswold ...	15,220	29	23	-	4	4	-	-	-	-	-	-	-	3	2	-	14	-	5
Northleach ...	7,292	17	11	-	-	-	-	1	1	-	-	-	-	-	-	-	4	4	4
Sodbury ...	27,380	40	13	-	27	25	2	-	-	-	-	-	-	2	-	2	47	71	8
Stroud ...	21,460	14	11	-	-	-	-	-	-	-	-	-	-	1	-	-	21	-	8
Tetbury ...	5,915	5	6	-	-	-	-	-	-	-	-	-	-	1	1	-	9	3	3
Thornbury ...	18,530	34	15	-	1	-	-	-	-	-	2	2	-	5	5	-	18	-	16
Warmley ...	9,133	20	4	-	30	12	1	-	-	-	-	-	-	-	-	-	4	1	3
West Dean ...	17,510	43	30	-	1	1	-	-	-	-	1	1	1	3	-	-	41	5	13
TOTAL R.D. ...	223,600	330	215	-	118	84	5	4	4	-	5	3	1	23	12	3	224	99	110
Administrative County	339,000	578	362	3	206	145	8	6	5	1	6	3	1	36	18	3	272	119	183

NOTIFIABLE INFECTIOUS DISEASES.

Erysipelas			Cerebro-Spinal Meningitis			Polio-myelitis			Encephalitis Lethargica			Polio-encephalitis			Dysentery			Malaria			Ophthalmia Neonatorum			TOTAL			
Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths	Cases	Admissions to Hospital	Deaths	
10	1	-	-	-	-	-	-	-	-	-	1	3	-	-	-	-	-	-	-	-	-	1	-	-	139	86	49
-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	11	5	2
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	6	3
7	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	130	59	10
7	3	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	45	10
-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	1	-	5	2	1
2	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	31	4
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	8	5
27	4	-	-	-	-	1	1	1	1	1	3	3	-	-	-	-	-	-	-	-	-	4	1	-	436	242	84
4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	11	6
3	2	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	20	9	7
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	24	8
4	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	87	45	10
5	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	6	2	-	67	44	10
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34	20	8
-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	27	20	7
8	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59	31	6
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	24	16	4
13	5	-	-	-	-	-	-	-	1	1	2	-	-	-	1	-	-	-	-	-	-	2	1	-	133	116	14
6	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	12	9
1	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	18	11	3
6	-	-	-	-	-	1	-	-	1	-	-	-	-	8	7	1	-	-	-	-	-	-	-	-	76	29	17
5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	60	18	4
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	37	14
71	12	1	2	1	1	3	1	-	2	1	5	-	-	9	7	1	1	-	-	-	15	4	-	807	443	127	
98	16	1	2	1	1	4	2	1	3	2	8	3	-	9	7	1	1	-	-	-	19	5	-	1243	685	211	

TABLE III.—1937.

## CAUSES OF AND AGES AT DEATH.

Causes of Death	All Ages	Under 1 year	1-2 years	2-5 years	5-15 years	15-25 years	25-35 years	35-45 years	45-55 years	55-65 years	65-75 years	75 years and over
1. Typhoid and paratyphoid fever	1	—	—	—	1	—	—	—	—	—	—	—
2. Measles ...	7	—	4	—	1	2	—	—	—	—	—	—
3. Scarlet Fever ...	3	—	1	—	1	—	—	—	—	—	—	—
4. Whooping Cough ...	13	4	5	3	1	—	—	—	—	—	—	—
5. Diphtheria ...	8	—	—	—	5	1	—	—	—	—	—	—
6. Influenza ...	179	1	3	1	2	4	4	8	20	27	39	70
7. Encephalitis Lethargica ...	8	—	—	—	—	1	1	—	1	2	3	—
8. Cerebro-Spinal Fever ...	1	1	—	—	—	—	—	—	—	—	—	—
9. Tuberculosis of respiratory system ...	171	—	—	1	1	27	46	33	33	17	11	2
10. Other Tuberculous diseases ...	43	5	5	4	3	5	9	6	3	2	1	—
11. Syphilis ...	4	—	—	—	—	1	—	—	—	2	1	—
12. General paralysis of the insane, tabes dorsalis ...	6	—	—	—	—	—	—	1	1	1	2	1
13. Cancer, malignant disease ...	599	—	—	—	2	1	12	25	71	127	206	155
14. Diabetes ...	86	—	—	—	2	1	2	1	7	27	30	16
15. Cerebral Haemorrhage ...	253	—	—	—	—	—	—	2	8	21	96	126
16. Heart disease ...	1,269	—	—	1	—	4	9	18	66	180	391	600
17. Aneurysm ...	6	—	—	—	—	—	1	—	1	—	1	2
18. Other circulatory diseases ...	305	—	—	—	—	—	—	1	5	38	109	152
19. Bronchitis ...	137	3	1	—	1	1	1	1	6	17	38	68
20. Pneumonia (all forms) ...	183	30	16	10	—	5	10	14	14	23	27	34
21. Other respiratory diseases ...	47	—	—	1	1	1	3	3	5	9	13	11
22. Peptic ulcer ...	53	—	—	—	—	—	5	7	7	13	16	5
23. Diarrhoea, etc. ...	38	16	3	4	2	—	3	—	1	5	1	3
24. Appendicitis ...	19	—	—	1	1	4	3	—	3	4	1	2
25. Cirrhosis of liver ...	7	—	—	—	—	—	—	—	1	5	1	1
26. Other diseases of liver, etc. ...	29	—	—	—	—	—	1	2	2	5	11	8
27. Other digestive diseases ...	75	3	2	—	4	5	6	1	9	11	12	22
28. Acute and chronic nephritis ...	142	—	—	—	—	1	2	6	19	26	53	35
29. Puerperal sepsis ...	4	—	—	—	—	—	4	—	—	—	—	—
30. Other puerperal causes ...	9	—	—	—	—	1	3	5	—	—	—	—
31. Congenital debility, premature birth, malformation, etc. ...	141	138	—	1	1	—	—	1	—	—	—	—
32. Senility ...	181	—	—	—	—	—	—	—	—	—	15	166
33. Suicide ...	40	—	—	—	—	1	5	8	6	11	7	2
34. Other violence ...	157	3	3	3	14	19	20	15	18	15	21	26
35. Other defined diseases ...	351	23	4	7	18	11	16	18	33	63	92	66
36. Causes ill-defined or unknown	7	—	—	—	—	—	—	—	—	—	4	3
TOTAL ...	4,582	227	47	39	61	96	166	176	340	653	1,201	1,576

