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LEICESTERSHIRE COUNTY COUNCIL

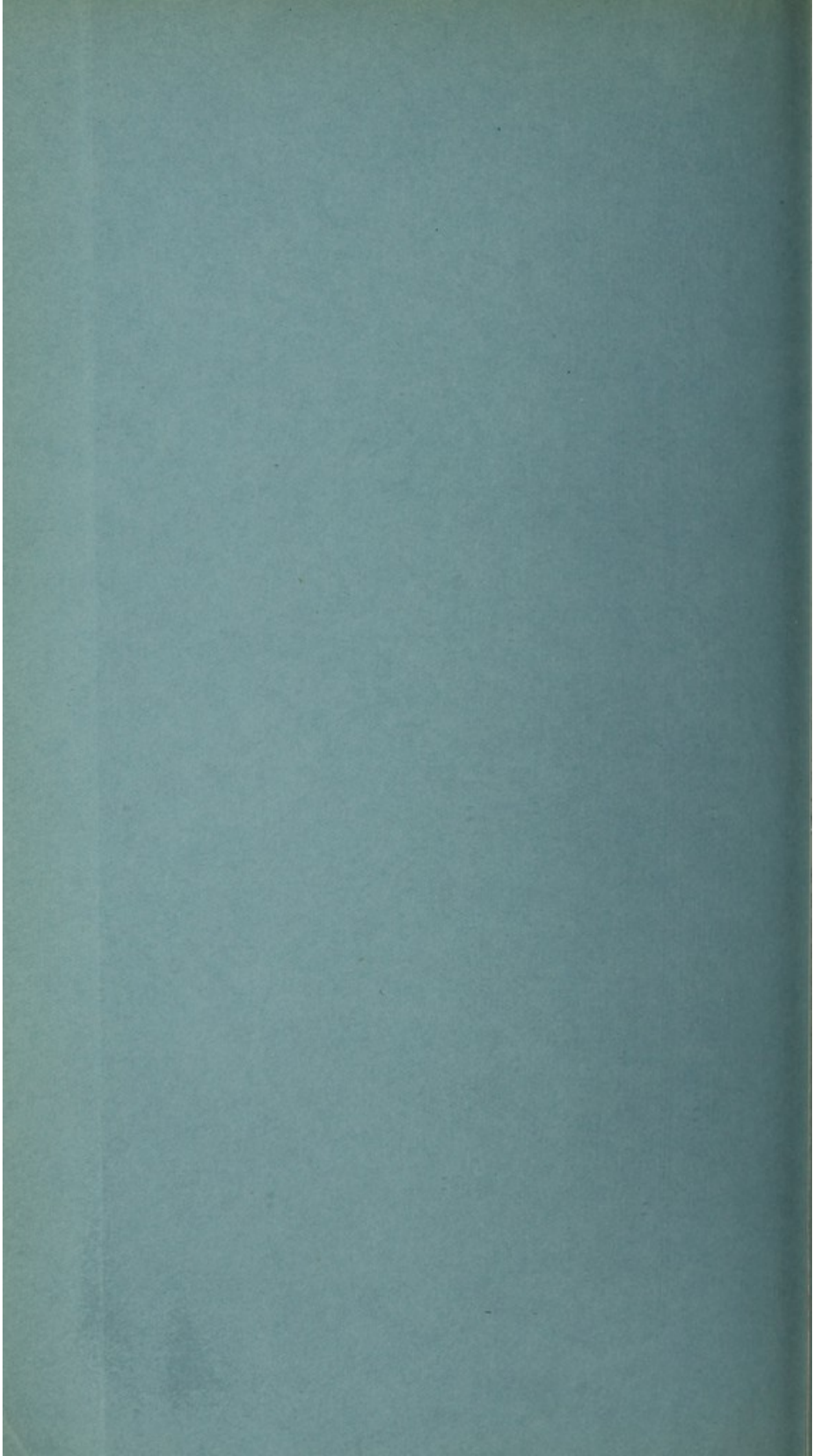
ANNUAL REPORT

of the

MEDICAL OFFICER
OF HEALTH FOR
THE YEAR 1933



J. A. FAIRER, M.D., D.P.H.
COUNTY MEDICAL OFFICER



CONTENTS.

	PAGE		PAGE
Ambulance Facilities	18	Milk to Schools	76
Ante-natal Centres	35-36	Nursing Homes	17
Appendix	91-92	Nursing in the Home	13
Bacteriological and Chemical Work	65-69	Ophthalmia Neonatorum	24
Birth Rate	12	Orthopædic Scheme	39-44
Birth Control	38	Pneumonia	23
Boarded-out Children	20	Population	9
Cerebro Spinal Fever	24	Premises and Occupations controlled by Bye-Laws or Regulations	62-65
Chicken Pox	24	Public Vaccinators	7
Children Act	30	Puerperal Fever	23-31
Clinics	18-19	Puerperal Pyrexia	23, 31
Closet Accommodation	61	Rainfall	54
Deaths	10-12	Rivers and Streams	56
Diphtheria	21	Sale of Foods & Drugs Acts	77
Diseases of Central Nervous System	23	Sanitary Circumstances	54
Diseases Locally Notifiable	24	Sanitary Inspection	62
District M.O.H's.	6	Scarlet Fever	22
Drainage and Sewerage	57	Scavenging	61-62
Erysipelas	23	Small Pox	16
Food Inspection and Supervision	74-77	Smoke Abatement	64
Gastro Intestinal Group Diseases	23	Social Conditions	9
Hospitals	16-17	Staff	5-8
Housing	70-73	Treatment of Children	37
Infant Mortality	10	Tuberculosis	85-89
Infectious Diseases	21-24	Vaccination	20
Influenza	22	Vaccination Officers	8
Local Government Act, 1929 (Administrative changes in Poor Law Service).	19-21	Venereal Diseases	45-53
Malaria	23	Veterinary Surgeons	8
Markfield Sanatorium	78	Vital Statistics	9
Maternity—Nursing Homes	17-18	Water	54
Maternity and Child Welfare Service	24-30	Zymotic Deaths	12
Maternal Mortality	30-31		
Maternity Hospitals	36-37	TABLES.	
Measles	22	Tuberculosis	84, 96, 97
Midwives	13-15	Vital Statistics	98-99
Milk—Examinations	67-68	Notifiable Diseases	100
Milk to Necessitous Mothers	29	Deaths in Age Periods	101
		Deaths in Administrative Areas	102

17 FRIAR LANE,
LEICESTER.

MR. CHAIRMAN AND GENTLEMEN,

I have pleasure in presenting my Annual Report on the Public Health and Medical Services of the County for the year 1933.

There has been an estimated increase in the population of 2,300 during the year. This makes a total increase in the County population since the 1931 Census of 6,408. The death rate is 11.3 as compared with the figure of 12.3 for England and Wales. The 1933 Infantile Mortality Rate is the lowest ever recorded being only 54 per 1,000 births. The Rate for England and Wales is 64 per 1,000. The most marked decrease however is in the birth rate. For the six years previous to 1931 the Rate had varied from 17.7 to 17 ; in 1931 it was 16.3 ; in 1932 15.7, but this year is the lowest yet recorded, *viz.* : 14.3. That this decreasing birth rate is not confined to Leicestershire is shown by the fact that the birth rate of the Country as a whole is only 14.4

The highest birth rate in the county since the War occurred in the year 1920 when the rate was 24.2 and the births totalled 6,333 but as the County population was then 261,369 and is now 309,100 this means that if the 1920 rate had been maintained the births in 1933 would have been 7,480 instead of 4,424.

With reference to Infectious Diseases, Influenza was prevalent in the early months and Scarlet Fever cases increased during the last three months of the year.

Particulars of the various activities of the Public Health Services are given under different sections of the Report, but I would bring to your notice the increase in the milk samples examined in the County Laboratory showing the efforts made to maintain the cleanliness of the milk supply of the County.

I also desire to call particular attention to the reports of Dr. Coward on "An analysis of deaths from Pulmonary Tuberculosis" and of Dr. Selby, the Medical Superintendent, on the work of the new Sanatorium and Isolation Hospital at Markfield.

My thanks are due to Dr. K. Cowan, Deputy County Medical Officer for his valuable help in the compilation of this report. Much of the work involved in its production has been undertaken by him.

It is with pleasure that I take this opportunity of thanking the Chairman and members of the Health Committee for their help and encouragement and all the members of my staff for their zealous and loyal work during the year.

I have the honour to be,

Mr. Chairman and Gentlemen,

Your obedient servant,

J. A. FAIRER,

County Medical Officer of Health.

June, 1934.

**THE COUNTY PUBLIC HEALTH AND HOUSING COMMITTEE,
1933.**

J. W. BLACK, Esq. (*Chairman*).

ARMSTRONG, A. E.	MAWBY, G. H.
BRIERS, A. J.	<i>(appointed July, 1933)</i>
BROUGHTON, A. H.	PICKERING, C. H.
<i>(resigned May, 1933)</i>	POCHIN, V. R. (<i>ex-officio</i>)
FORSELL, J. T.	RIPPIN, W. H.
FULLER, B.	STUBBS, W.
GOODMAN, J. A.	TANDY, E. W.
HOLMES, J. H.	TIMMS, R. (<i>Vice-Chairman</i>)
HUBBARD, B.	WARD, G.
JACQUES, J. T.	WILLETT, F.
LEVERS, G. T.	WILSON, C.
MARTIN, Lt.-Col. R. E., C.M.G.	WRIGHT, W. H.
<i>(ex-officio)</i>	

MATERNITY AND CHILD WELFARE COMMITTEE.

This Committee consists of all the members of the Public Health and Housing Committee with the addition of the following ladies :—

MRS. A. SHIRLEY ATKINS.
MRS. E. E. BUCKINGHAM.
MRS. B. EVERARD.
MRS. S. M. JOYCE.
MRS. G. SPENCER.
MRS. W. R. TUCKETT.

STAFF.

County Medical Officer :
 School Medical Officer :
 Administrative Officer for Tuberculosis and Maternity and Child Welfare :

J. A. FAIRER, M.D., D.P.H.

Deputy County Medical Officer :
 Deputy School Medical Officer :

K. COWAN, M.D., D.P.H.

Assistant County Medical Officer :
 Senior Assistant School Medical Officer :

D. G. ANDERSON, M.B., Ch.B., D.P.H.

Chief Tuberculosis Officer :

N. A. COWARD, O.B.E., M.D., D.P.H.

Assistant Tuberculosis Officer :

S. W. LANE, M.R.C.S., L.R.C.P.

Assistant Infant Welfare Officer :
 Assistant School Medical Officer :

MARY E. WESTON, M.B., B.S.

Assistant Infant Welfare Officer :
 County Oculist :

CONSTANCE WALTERS, B.Sc., M.B., B.Ch.

Assistant School Medical Officer :

S. E. MURRAY, M.B., B.S.

Assistant School Medical Officer :
 Medical Officer for Venereal Diseases :

J. B. DALTON, M.B., Ch.B.

Medical Superintendent, Markfield Sanatorium :

H. SELBY, M.B., B.S., M.R.C.S., L.R.C.P.

Assistant Resident Medical Officer, Markfield Sanatorium :

E. GRUNDY, M.D., B.S., M.R.C.S., D.P.H.

Chief Dental Surgeon :

P. ASHTON, L.D.S.

Assistant Dental Surgeons :

A. E. WARD, L.D.S.

C. L. R. McLELLAN, L.D.S.

D. R. A. WILLCOX, L.D.S.

HEALTH VISITORS.

*Mrs. A. Warren, S.R.N. (*Superintendent*).

Miss A. Addy, S.R.N.	Miss E. Y. Feakin, S.R.N.
Mrs. A. D. Antrobus, S.R.N.	Miss L. Fox, S.R.N.
Miss A. J. Bailey, S.R.N.	Miss T. M. Griffiths, S.R.N.
Miss C. E. Bangham, S.R.N.	*Miss K. A. Marsh, S.R.N.
Mrs. S. J. Bourne, S.R.N.	Miss W. C. Porter, S.R.N.
Mrs. P. Brunsdon, S.R.N.	Miss E. H. Seabrook.
*Miss G. E. Butler, S.R.N.	Miss W. A. Simmons, S.R.N.
*Mrs. F. E. Cade.	Mrs. E. E. Wright, S.R.N.
Miss G. I. Carryer, S.R.N.	
Miss V. L. Davies, S.R.N.	
Miss M. A. Dilworth, S.R.N.	

*Those marked * hold the Certificate of Sanitary Inspector.*

All the above are fully trained Nurses and hold the Certificate of the Central Midwives Board. The Superintendent also holds the Child Welfare Workers' Certificate. Miss Butler, Miss Bangham, Miss Carryer, Miss Davies, Miss Feakin, Miss Addy, and Miss Porter, have the new Health Visitors' Certificate of the Ministry of Health.

All the above are full-time Officers of the County Council.

ADDITIONAL OFFICERS.**(1) District Medical Officers of Health.****URBAN :**

DISTRICT.	NAME AND ADDRESS.	
Ashby-de-la-Zouch	Dr. T. Forsyth	Hugglescote.
Ashby Woulds	Dr. R. Logan (<i>resigned 3/6/33</i>)	Ashby-de-la-Zouch.
	Dr. T. Forsyth (<i>appointed 4/6/33</i>)	Hugglescote.
Coalville	Dr. A. Hamilton	Coalville.
Hinckley	Dr. J. H. Donnell	Hinckley.
Loughborough	Dr. N. B. M. Blackham	Loughborough.
Market Harborough	Dr. C. T. Scott	Market Harborough.
Melton Mowbray	Dr. J. E. O'Connor	Kirby Muxloe.
Oadby	Dr. J. E. O'Connor	Kirby Muxloe.
Quorndon	Dr. J. E. O'Connor	Kirby Muxloe.
Shepshed	Dr. T. Bell	Shepshed.
Thurmaston	Dr. J. E. O'Connor	Kirby Muxloe.
Wigston	Dr. J. E. O'Connor	Kirby Muxloe.

RURAL :

DISTRICT.	NAME AND ADDRESS.	
Ashby-de-la-Zouch	Dr. T. Forsyth Hugglescote.
Barrow-on-Soar	Dr. J. E. O'Connor Kirby Muxloe.
Belvoir	Dr. F. J. H. Martin Bottesford.
Billesdon	Dr. J. E. O'Connor Kirby Muxloe.
Blaby	Dr. J. E. O'Connor Kirby Muxloe.
Castle Donington	Dr. T. M. Montford. Castle Donington.
Hallaton	Dr. J. E. O'Connor Kirby Muxloe.
Hinckley	Dr. J. E. O'Connor Kirby Muxloe.
Loughborough	Dr. N. B. M. Blackham Loughborough.
Lutterworth	Dr. J. E. O'Connor Kirby Muxloe.
Market Harborough	Dr. J. S. Macbeth Kibworth Beauchamp.
Market Bosworth	Dr. T. G. Kelly Desford.
Melton Mowbray	Dr. J. E. O'Connor Kirby Muxloe.

(2) District Medical Officers (Poor Law) and Public Vaccinators.

DISTRICT.	NAME AND ADDRESS.	
Bottesford	Dr. F. J. H. Martin, Bottesford, Notts.
Croxton Kerrial	Dr. R. H. Hudson, Woolsthorpe, Grantham.
Waltham	Dr. W. Arnold, Waltham-on-the-Wolds, Melton Mowbray.
Long Clawson....	Dr. G. C. B. Atkinson, Long Clawson, Melton Mowbray.
Wymondham	Dr. H. S. Furness, Melton Mowbray.
Asfordby	Dr. G. S. A. Bishop, Melton Mowbray.
Melton Mowbray (north)	Dr. R. H. Fagge, Melton Mowbray.
Melton Mowbray (south)	Dr. R. H. Fagge, Melton Mowbray.
Somerby	Dr. R. J. Mould, Somerby, Melton Mowbray.
Loughborough	Dr. C. L. Lapper, 25 Victoria St., Loughborough.
Shepshed	Dr. T. Bell, Shepshed, Loughborough.
Castle Donington	Dr. W. H. Dowell, Castle Donington, Derby.
Mountsorrel	Dr. J. S. Strachan, Mountsorrel, Loughborough.
Barrow-upon-Soar	Dr. J. S. Gray, Sileby, Loughborough.
Sileby	Dr. J. S. Gray, Sileby, Loughborough.
Syston	Dr. R. W. Taylor, Syston, Leicester.
Billesdon	Dr. E. K. Williams, Billesdon, Leicester.
Hallaton	Dr. P. Drummond, Hallaton, Market Harboro'.
Market Harboro' (No. 1)	Dr. C. T. Scott, Market Harborough.
Market Harboro' (No. 2)	Dr. J. S. Macbeth, Kibworth Beauchamp, Leicester.
Wigston	Dr. S. B. Couper, Blaby, Leicester.
Enderby	Dr. W. R. M. Berridge, Enderby, Leicester.
Lutterworth	Dr. T. W. Crowley, Lutterworth, Rugby.
Peatling	Dr. C. R. Jones, Peatling Magna, Leicester.
Hinckley	Dr. H. Shirlaw, Hinckley.
Market Bosworth	Dr. H. N. Keeling, Market Bosworth, Nuneaton.
Ibstock	Dr. C. S. Agnew, Ibstock, Leicester.
Ashby-de-la-Zouch	Dr. S. Silley, Ashby-de-la-Zouch
Coalville	Dr. T. Forsyth, Hugglescote.
Measham	Dr. J. R. Salmond, Appleby Magna, Burton-on-Trent.

OTHER OFFICERS.**(3) Vaccination Officers.**

DISTRICT.	NAME AND ADDRESS.	
Ashby-de-la-Zouch	Mr. J. W. Bowley	Ashby-de-la-Zouch.
Billesdon	Mr. T. Warham	Bushby.
Enderby	Mr. A. S. Collis	Narborough.
Hinckley	Mr. W. H. Pendlebury	Hinckley.
Loughborough	Mr. A. L. Milner	Loughborough.
Lutterworth	Mr. H. Webb	Lutterworth.
Market Harborough	Mr. W. J. Fordham	Market Harborough.
Market Bosworth	Mr. E. L. Hunt	Ibstock
Measham	Mr. D. Leslie	Measham.
	<i>(appointed Sept., 1933)</i>	
Melton (North)	Mr. E. S. Cox	Melton Mowbray.
Melton (South)	Mr. H. N. Lock	Melton Mowbray.
Mountsorrel	Mr. S. G. Cannell	Quorn.
Syston	Mr. A. E. Williams	Syston.
Wigston	Mr. W. W. Farrar	South Wigston.

(4) Veterinary Surgeons.

DISTRICT.	NAME AND ADDRESS.	
Ashby-de-la-Zouch	Mr. R. Lake	Ashby-de-la-Zouch.
Belvoir	Mr. V. P. Littler	Long Clawson.
Hinckley	Mr. J. D. C. Ward	Hinckley.
Leicester	Mr. H. Thornton	Leicester
Long Clawson....	Mr. T. Littler	Long Clawson.
Loughborough	Mr. R. L. Phillips	Loughborough.
Lutterworth	Mr. W. L. Gascoyne	Lutterworth.
Market Bosworth and Coalville	Mr. H. E. Powell	Coalville.
Market Harborough	Mr. R. MacGregor	Market Harborough.
Melton Mowbray	Mr. J. N. Glass	Melton Mowbray.

The Offices of the Health Department are divided into four main sections :—

General, and Maternity and Child Welfare Department :

Chief Clerk (H. Burditt) and six assistants.

Tuberculosis :

Chief Clerk and Steward, Markfield Sanatorium (H. Collington) and three assistants.

School Medical Service : Chief Clerk (W. A. Thornton) and three assistants. There are also four assistants in the Dental Department.

Laboratory :

Assistant Bacteriologist (J. N. Graham) with one junior assistant.

REPORT.

STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

Area in acres	....	....	524,197	....	....	{ Urban 41,336 Rural 482,861
Population (Census 1931)	....	....	....	....	....	302,692
" Urban			121,244			
" Rural			181,448			
" Estimated Resident (June, 1933)	....	....	....	....	....	309,100
" Urban			122,400			
" Rural			186,700			
Number of inhabited houses (1931)	....	....	....	....	....	76,088
Number of families or separate occupiers	....	....	....	....	....	78,103
Reduced rateable value	....	....	....	....	....	£1,325,997
Sum represented by Penny Rate	....	....	....	....	....	£5,110

SOCIAL CONDITIONS OF THE COUNTY.

The workers of the County fall into three main occupational groups, viz., Agricultural, Mining and Industrial. The North-Western area forms a fairly well defined mining district but many of the younger members of the population are engaged in factory work in Leicester to which they travel daily. The mining districts have suffered from the prevailing depression causing a considerable amount of unemployment, and the same may be said to a lesser extent of the industrial districts where the manufacture of worsted and cotton hose and boots and shoes is carried on.

Notwithstanding the prevalence of unemployment and the reduced standard of living of numbers of the population there is no direct evidence of deterioration in the health of the people. The returns received from the medical inspection of school children do not reveal any evidence of excessive malnutrition amongst the school population of the County. These figures contribute the only direct evidence available and may be somewhat fallacious as an index when applied to the whole population, but they are at least an assurance that the health of the younger section of the community is not being influenced significantly by unemployment.

EXTRACT FROM THE VITAL STATISTICS OF THE YEAR.

		Total.	Males.	Females.
Live Births	{ Legitimate	.... 4,280	2,203	2,077
	{ Illegitimate	.... 144	70	74
	{ Total Births	.... 4,424	2,273	2,151

Birth Rate per 1,000 of population, 14.31.

Still Births : Total 169.

Rate per 1,000 total births : 36.8.

Deaths : Total 3,504. Death Rate ; 11.33.

Number of women dying in, or in consequence of childbirth :—

Sepsis, 7 Other Causes, 15. Total : 22.

Rate per 1,000 total births : 4.79.

Deaths of Infants under one year of age, per 1,000 live births :—

Legitimate : 54. Illegitimate : 69.

Total Rate per 1,000 54.

Deaths from	Measles (all ages) ....	....	....	....	....	10
„	„ Whooping Cough (all ages)	....	....	....	....	13
„	„ Diarrhœa (under 2 years)....	....	....	....	....	15

INFANT MORTALITY.

The Infant Mortality Rate for 1933 is returned as 54 which is a record low rate for the County. The Rate for England and Wales for the same period is 64.

INFANT MORTALITY.

Year	URBAN		RURAL		WHOLE COUNTY		Rate for England and Wales
	No.	Rate	No.	Rate	No.	Rate	
1929	114	57	172	57	286	57	74
1930	108	53	170	57	278	55	60
1931	122	61	173	58	295	59	66
1932	117	63	169	57	286	59	65
1933	107	63	134	49	241	54	64

It is gratifying to know that the work of the Maternity and Child Welfare Service is obtaining definite results and that the campaign to prevent excessive infant mortality is justifying the expenditure incurred. This work, which is of such importance not only to the individual but to our National well being, has been at times the subject of certain ill-considered criticism. It should be a source of much encouragement to those who have engaged so enthusiastically and actively in infant welfare work that time is justifying their efforts by producing overwhelming evidence of its value.

DEATHS.

The Death Rate of the County (11.33) again shows a slight increase upon that of last year. There has also been a rise in the Death Rate (12.3) of the country as a whole.

In 1932 the Death Rate was 11.25 and the total number of deaths 3,451. In 1933 the latter figure has risen to 3,504.

The seven chief causes of death in 1933 with the corresponding percentages of total deaths were :—

(1)	Heart Disease	....	....	20.9
(2)	Cancer	....	....	12.8
(3)	Cerebral Hæmorrhage			6.8
(4)	Phthisis	....	....	6.1
(5)	Senility	....	....	5.6
(6)	Influenza	....	....	5.1
(7)	Pneumonia	....	....	4.3

There has been a definite increase in the death rates from Heart Disease and Cancer which still occupy the premier positions as causes of death. The number of deaths from Cancer is the largest ever recorded in the county and the death rate shows an increase from 1.35 in 1932 to 1.45 in 1933. There has been a decrease in the number of deaths recorded as due to Phthisis and although this disease still occupies the same relative position in the Table the death rate has decreased from 0.73 in 1932 to 0.69 in 1933.

The severe epidemic of Influenza in the early part of the year of which mention is made in another section of this report resulted in a marked increase in the number of deaths from this disease, thus placing Influenza amongst the chief causes of death for the year. Although there has been a slight fall in the number of deaths from Pneumonia the relatively high figure has placed this disease last upon the list of the chief causes of death to the exclusion of congenital debility which occupied this position in 1932.

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	Urban	Rural	Whole C'ty
Heart Disease	288	2.35	445	2.38	733	2.37	20.1	21.5	20.9
Cancer	188	1.54	261	1.40	449	1.45	13.1	12.6	12.8
Cerebral Hæmorrhage	106	0.82	132	0.71	238	0.77	7.4	6.4	6.8
Phthisis	86	0.70	128	0.69	214	0.69	6.0	6.2	6.1
Senility	94	0.77	101	0.54	195	0.63	6.6	4.9	5.6
Influenza	55	0.45	122	0.65	177	0.57	3.8	5.9	5.1
Pneumonia	48	0.39	101	0.54	149	0.48	3.3	4.9	4.3

The following Table shows the net number of registered deaths with corresponding rates (Urban and Rural) in Leicestershire and England and Wales during the five years 1929-1933.

DEATHS.

Year	URBAN		RURAL		WHOLE COUNTY		Rate for England and Wales
	Net No. Reg'ed	Rate	Net. No. Reg'ed	Rate	Net No. Reg'ed	Rate	
1929	1441	11.91	2188	12.55	3629	12.29	13.4
1930	1256	10.38	1819	10.44	3075	10.41	11.4
1931	1315	10.79	2019	11.09	3334	10.97	12.3
1932	1392	11.41	2059	11.14	3451	11.25	12.0
1933	1435	11.72	2069	11.08	3504	11.33	12.3

During the whole of this period the Death Rate of the County has been considerably lower than that of England and Wales.

ZYMOTIC DEATHS.

In 1933 the Zymotic Deaths numbered 50. This figure shows a welcome decrease upon that for the previous year.

YEAR	URBAN		RURAL		WHOLE COUNTY	
	No.	Rate	No.	Rate	No.	Rate
1929	36	0.30	68	0.39	104	0.35
1930	24	0.20	34	0.20	58	0.20
1931	36	0.30	42	0.23	78	0.26
1932	32	0.26	34	0.18	66	0.22
1933	20	0.16	30	0.11	50	0.16

BIRTH RATE.

The Birth Rate for 1933 is 14.3 which is the lowest ever recorded in the County and shows a marked decrease upon that for previous years:— 1931 (16.3), and 1932 (15.7). The total number of live births was 4,424. Of the recorded births 2,273 were males and 2,151 were females, the ratio of male to female births being 105.7 to 100.

Summary of Birth Statistics, Urban, Rural, and Whole County.

Population for Birth Rate	URBAN		RURAL		WHOLE COUNTY		ENGLAND AND WALES
	122,400		186,700		309,100		
	No.	Rate	No.	Rate	No.	Rate	Rate.
Births	1689	13.8	2735	14.7	4424	14.3	14.4

NURSING IN THE HOME.

The general nursing services in the County are undertaken by the County Nursing Association in conjunction with the County Council. The services in existence now cover the greater part of the County.

The County Nursing Association undertakes on behalf of the County Council the nursing of home cases of Tuberculosis where suitable.

Arrangements are in force with the Leicester City Nursing Association for the nursing of cases of Measles and Whooping Cough in children under five years of age on the Saffron Lane Housing Estate adjacent to the City.

MIDWIVES.

(a) Statistical Particulars.

During the year 226 midwives notified their intention to practise, two met with fatal accidents, and one other died.

Of the County Midwives 213 hold the certificate of the Central Midwives Board, two the L.O.S. certificate, and one the Rotunda Hospital certificate; the remaining ten belong to the bona fide classification.

Inspection of midwives is carried out by four members of the County Health Visiting Staff to each of whom a district is assigned. Three of these officers are specially appointed County Health Visitors, the fourth is the Superintendent Health Visitor under whose supervision the work in all the districts is undertaken.

The Inspectors made 507 visits during the year. It was not found necessary as a result of their inspections to report any breach of the rules to either the Local Supervising Authority or to the Central Midwives Board.

The Annual Returns received from the County Midwives are as follows :—

Medical Help Records	....	....	....	....	684
Notice of liability to be a source of infection	....	....	....	....	44
Laying out of the dead records	....	....	....	....	55
Notice of death of mother or child	....	....	....	....	9

Still-birth records	....	....	....	....	38
Notice re artificial feeding	....	....	....	....	34
Notice of change of address	....	....	....	....	13

The Midwives called in Medical Help in 30.3 per cent. of the cases attended by them.

The chief causes for medical help for the mother were :—Injuries to perineum, Delayed labour, Malpresentation, Raised temperature, Adherent placenta, Ante-partum hæmorrhage, and Post-partum hæmorrhage

The chief causes of help required for the child were :—Discharge from the eyes, Feebleness, Prematurity and Deformity.

The records show that 3,365 cases were attended by Midwives during the year, and of this number 2,256 were taken by them alone. In the remaining 1,109 cases both doctor and midwife were in attendance.

(b) Doctors' Fees in Special Cases.

One fee amounting to £2 . 2 . 0. was paid during the year.

(c) Midwives' Fees.

Applications were received from Certified Midwives in respect of their attendance on 21 necessitous cases. In 18 cases the full fee was granted, half fee was granted in one case, and the remaining two applications were withdrawn.

Grants under this section amounted to £31 . 10 . 0.

(d) Subsidy to Midwives.

Subsidies to three midwives were authorised by the County Council at a cost not exceeding £21 each per annum. The subsidy in each case was given to the County Nursing Association for distribution.

For general emergency duties in the County, four Nurse-Midwives are maintained at the County Nurses' Home, Highfield Street, Leicester.

(e) Placing of Midwives.

A grant of £200 is made by the County Council to the County Nursing Association for the training of midwives newly appointed, either to fill a vacancy or to settle in a new district for which no previous provision has been made.

(f) Milage Grants for Midwives.

The sum of £9 . 10 . 0. was expended in milage grants to midwives taking cases outside their usual area of practice, the Committee receiving six applications, all of which were granted.

(g) Inspection of Midwives.

It was not found necessary to suspend any midwife from duty through her being in contact with infectious disease.

(h) Educational Facilities.

(1) *Midwifery Scholarships.* The selection of candidates and arrangements for training are carried out by the County Nursing Association and applications should be made to the Secretary of the Association. During the year three candidates completed this training and six others commenced the course.

(2) *Post-Certificate Courses.* Grants are made to midwives who desire to take post-certificate courses in order to keep abreast of modern developments in their work. During the year three midwives took post-certificate courses at Camberwell. In each case a grant of £12 . 0 . 0. was allotted, £4 . 0 . 0. towards the charges of the training Institution and £8 . 0 . 0. for travelling expenses and provision of a substitute.

(3) *Lectures to Practising Midwives.* During the year Dr. E. Lewis Lilley, Obstetric Surgeon to the Leicester and Leicestershire Maternity Hospital, gave a series of lectures to practising midwives. His report is as follows :—

“I have as requested recently given a course of lectures to Midwives practising in the County. Two lectures of about 45 minutes each were given on each day and the numbers attending on each occasion were Leicester 15, Loughborough 12, Coalville 14, Leicester 26. I consider these figures very satisfactory taking into account the distances and the many things incidental to a Nurse's work which may prevent her absenting herself on a particular afternoon. I gave to the Nurses the option (of which eager advantage was taken) of choosing the subject of my talk though I also took the opportunity to make them acquainted with some of the recent research bearing on their work. Great interest was shown by those present and many of them expressed their appreciation of the facilities offered by the County Council.”

E. LEWIS LILLEY.

(i) Additional Administrative Arrangements.

(1) *Sparsely Populated Areas.* There has been no change in the arrangements for the service of these districts during the year. Grants made were as follows :—Three of £78 ; one of £58 ; one of £52, and one of £50. Bicycle allowance of £6 . 0 . 0. per annum was continued in the case of four Associations.

(2) *Necessitous Districts.* Grants varying from £8 to £21 per annum were made to 19 District Nursing Associations in which a service is already in operation.

The method of administering these grants remains the same as in previous years.

(3) *Midwives Act, 1918.* During the year 341 claims were paid under the provisions of this Act. The total amount expended was £554 and £204 was recovered from persons responsible for payment.

(j) Sterilised Maternity Outfits.

Sterilised Maternity Outfits are supplied at cost price through the Health Department to the County Nursing Association for distribution to midwives. Independent midwives practising in the County may also avail themselves of this service on the same terms.

HOSPITALS.

(1) **Infectious Diseases other than Small-pox.** The number of beds available in the County is 117. Treatment is carried out under the control of the Leicestershire Isolation Hospitals Committee and the beds are distributed as follows :—

	Beds.
Markfield Isolation Hospital	54
Hinckley Isolation Hospital	23
Melton Mowbray Isolation Hospital	23
Blaby Isolation Hospital	17
Total	117

At Markfield Hospital there are two resident medical officers ; the other hospitals are served by part-time practitioners. No difficulty has been encountered during the year in meeting the demands for isolation and treatment of infectious diseases in the County and the accommodation provided appears to be adequate.

(2) **Small-pox.** There has been no alteration in the arrangements for the treatment of this disease. Two hospitals are available in the County, Syston Small-pox Hospital, 15 beds ; and Snarestone Small-pox Hospital, 23 beds. A reciprocal agreement is in force between the County Council and the Leicester City Authority for the reception of cases of Small-pox. Details of this agreement have been outlined in previous reports.

(3) **Other Hospitals.** The new County Sanatorium and Isolation Hospital at Markfield has proved itself of great value in the treatment of Pulmonary Tuberculosis and Infectious Diseases. A full report of the year's working of this Institution will be found in another section of this report.

The following are the only arrangements in force for co-operation between the County Council and the Voluntary Hospitals :—

The Public Assistance Committee makes a grant to the Leicester Royal Infirmary, Market Harborough Cottage Hospital, Hinckley Cottage Hospital and Lutterworth Cottage Hospital for the reception of acute sick into those Institutions.

Under the Authority's scheme for the operative treatment of Enlarged Tonsils and Adenoids provision is made for the use of the Cottage Hospitals at Ashby-de-la-Zouch, Market Harborough, Lutterworth, Melton Mowbray and Hinckley and of the Loughborough General Hospital for these operations.

There has been no change during the year in the arrangements for hospital treatment of maternity cases. No difficulty has been experienced in securing admission for these cases to the various hospitals which have an agreement with the County Council. The arrangement in force for the reception of County patients at the Leicester and Leicestershire Maternity Hospital is of great value, and, notwithstanding the great demand on the beds at this Institution every effort has been made by the Hospital Authorities to facilitate the admission of any case provided for under the subsidy from the County Council.

Detailed information of the hospital accommodation available in the various transferred Poor Law Institutions is given in another section of this report.

MATERNITY AND NURSING HOMES.

The administration of the provisions of the Nursing Homes (Registration) Act, 1927, is undertaken by the County Council which is the Local Supervising Authority for the whole County, including the Borough of Loughborough. No application has been received from a District Authority for delegation of powers under the Act to a District Council.

Periodic inspections of the registered homes are carried out by Dr. Cowan and the County Superintendent Health Visitor. Before any application for a certificate of registration of a Home is granted full inquiry is made as to the suitability and qualifications of the applicant and an inspection of the premises is carried out to ensure that they conform to the necessary standard.

The following are particulars concerning the administration of this section of the work :—

	Nursing Home.	Maternity Home.	Nursing & Maternity Home.
No. of applications for registration	1	1	1
No. of Homes registered	1	12	2
No. of Orders made refusing registration	—	—	—
No. of Orders made cancelling registration	—	—	—
No. of appeals against such Orders	—	—	—
Appeals confirmed	—	—	—
Appeals disallowed	—	—	—
Homes discontinued	1	1	1

Exemptions from registration under the Act were made in seven instances *viz.*, five Cottage Hospitals, one General Hospital, and one "Home of Rest."

Provision is made for the reception of unmarried mothers at St. Saviour's Home, Northampton. In addition, arrangements are in force for the Ely Diocesan Home, Cambridge, and the Salvation Army Home, Birmingham, to receive cases if required.

AMBULANCE FACILITIES.

(a) Infectious Diseases.

The arrangement, described in my Annual Report of last year, for the provision of ambulances for these cases remains in force. No undue difficulty has been encountered during the year with regard to ambulance facilities.

A special ambulance is reserved for the transport of cases of Small-pox.

(b) Non-infectious and Accident Cases.

The removal of cases of Tuberculosis is undertaken by the County Council ambulance when necessary, but no responsibility is undertaken for other cases.

(c) Maternity Cases.

No special ambulance is provided for these cases, but transport is arranged for, when necessary.

CLINICS AND TREATMENT CENTRES.

Work was commenced in the new combined Clinic at Melton Mowbray, known as the Melton Mowbray Health Centre, in January 1933. The Centre was officially opened by H.R.H. the Duke of Gloucester, in December, 1933.

The building comprises School Clinic, Infant Welfare Centre, and Orthopædic Clinic. It is, in addition suitable for use by the Dental Staff and School Oculist when necessary.

This Centre replaces the premises previously used as a School Clinic at the Town Hall and those used as an Infant Welfare Centre at a Church Hall. The Orthopædic Clinic is an innovation at Melton Mowbray.

The Centre is also used as Tuberculosis Dispensary displacing the premises previously in use at Nottingham Street.

The Clinic will be used for the following purposes at the hours stated : —

Minor ailments	Wednesday and Friday, 10 a.m. to 12 noon. A School Medical Officer attends on Wednesdays.
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Orthopædic Treatment	Tuesday, at 2 p.m.	Orthopædic Surgeon attends one session per month.
Infant Welfare Centre	Wednesday, 2 p.m.	A Medical Officer attends once per month.
Dental Clinic ....	....	First Saturday in the month, 10 a.m.
Tuberculosis Dispensary	Tuesday, 9-30 a.m.	

The Health Centre at Coalville is now used as a Tuberculosis Dispensary on Friday mornings, the Residential Dispensary in Bakewell Street having been closed in consequence of the increased accommodation provided for tubercular patients at Markfield.

These are the only changes which have taken place during the year with regard to Clinic and Treatment Centres under the control of the County Council.

LOCAL GOVERNMENT ACT, 1929.

(1) Public Assistance Institutions.

I mentioned in my Annual Report of last year that the Public Assistance Committee had acquired Bosworth Park, Market Bosworth, for use as a Poor Law Institution. During the year negotiations have been in progress with the Ministry of Health concerning plans for the alteration and adaptation of the premises and also with regard to the status of the proposed Institution.

It has been decided that the Institution shall be administered by the Public Assistance Committee and that the accommodation shall be used for the chronic sick and supplement such provision as already exists in other Institutions in the County. Acute cases can be dealt with at the City General Hospital, Leicester, by virtue of an arrangement between the City and County Authorities.

Certain of the smaller and more unsuitable Poor Law Institutions in the County will be closed and the others re-organised upon a basis which will permit of the accommodation of the various types of cases being undertaken with greater facility.

The Poor Law Institutions at present available in the County are as follows :—Ashby-de-la-Zouch, Hinckley, Loughborough, Lutterworth, Market Bosworth, Market Harborough, Melton Mowbray, Mountsorrel and Narborough. The Institution at Billesdon was closed during the year.

(2) Poor Law Medical Out-relief.

A Table showing the various districts and the names of the Medical Officers in charge will be found at the beginning of this report.

No difficulties have been encountered during the year in the administration of medical out-relief and no alterations have occurred in the constitution or staffing of any district.

(3) Vaccination.

The districts of Public Vaccinators in the County number 30, and those of the Vaccination Officers total 14. The work of general supervision of vaccination has continued satisfactorily throughout the year. The following is a summary of the Vaccination Officers' Returns rendered to the Registrar-General respecting the vaccination of children whose births were registered from January 1st to December 31st, 1932.

(i)	No. of births entered in "Births Lists" as registered during 1932	.....	.....	.....	4535
(ii)	Statement relating to these births on 31st January, 1934 :—				
	(a) No. successfully vaccinated....			251	
	(b) No. insusceptible to vaccination			12	
	(c) No. had Small-pox	.....	.....	—
	(d) No. of Statutory Declarations received	.....	.....	.....	3939
	(e) No. died unvaccinated	.....		178	
	(f) No. temporarily unaccounted for			81	
	(g) No. otherwise unaccounted for			74	
				—	4535
(iii)	No. of cases of children successfully vaccinated after Statutory Declaration had been received (included in sub-heading (d) )	.....	.....	.....	7

(4) Boarded-out Children.

The work of inspection of these children is carried out by the County Health Visiting Staff.

Routine visits of inspection are made to each case once every six weeks. When necessary, owing to special circumstances, more frequent visits are paid and in all cases a detailed report of the conditions found at each visit is made by the Health Visitor. These reports are scrutinised by Dr. Cowan and any necessary comments made before being passed on to the Public Assistance Officer.

The number of children on the register on 31st December, 1933, was 62.

To ensure that each individual boarded-out child is being cared for in the manner required detailed inquiry and inspection are required at each visit. Where some defect is found in the condition of the child or of the home a re-inspection is necessary after a short interval. This constant supervision, while occupying an unduly high proportion of the time of the Health Visiting Staff, is necessary if conditions are to be kept up to standard.

Certain of the reports received from the Health Visitors during the year disclosed various defects in the conditions of the children but nothing of such a serious nature as to warrant any serious action being taken was reported.

Institutional Provision for the Care of Mental Defectives.

Provision is made for the care of mental defectives at Stretton Hall. This Institution which is administered by the Mental Deficiency Act Committee of the County Council makes provision for high grade mental defective females and for a few low grade boys and girls. The available accommodation at present is 20 cot and chair cases and 30 of medium and high grade.

PREVALENCE OF AND CONTROL OVER INFECTIOUS AND OTHER DISEASES.

The most noteworthy feature under this heading has been the absence of Small-pox, no case having been notified during the year. The year 1932 showed a decline in the number of notifications of this disease and only one case was reported during the last quarter of that year. This marked the end of the epidemic which had prevailed in the County since 1929 and the County has been free from Small-pox entirely during 1933. The total number of cases notified from 1929 to 1932 was 1,662 the epidemic reaching its peak in 1931 when 754 cases were notified.

A serious epidemic of Influenza affected the County in common with other parts of the country during the early months of the year. Every area of the County was affected in greater or lesser degree and the epidemic reached its maximum proportion in the latter part of January and the beginning of February.

There has been a marked fall in the number of cases of Scarlet Fever but the incidence of Measles remained much the same as in the previous year. Notifications of Diphtheria are almost identical with those of 1932 but there has been a slight decrease in the number of cases of Pneumonia.

DIPHTHERIA.

The number of cases of Diphtheria notified during 1933 was 125 as compared with 124 in 1932. The incidence of the disease was more marked in the Rural Districts where 101 cases occurred than in the Urban Districts where only 24 cases were notified.

No district in the County showed any undue prevalence but the largest number of cases occurred during the last quarter of the year when there were 54 notifications.

It was not found necessary to close any school in the County on account of Diphtheria but special visits were made by Medical Officers to four schools on account of outbreaks of this disease. A total of 226 swabs was taken from the throats of children at the schools during the investigation for the detection of infection in contacts and carriers and submitted to bacteriological examination in the County Laboratory.

There were 10 deaths recorded as due to Diphtheria as compared with 11 in the previous year. The death rate is less than that in 1932.

SCARLET FEVER.

The notifications of Scarlet Fever totalled 480, a decrease of 190 on last year. The disease was fairly evenly distributed between the Urban and Rural areas. The only district to show a relatively high incidence was Hinckley where 30 cases were notified during the last quarter of the year.

It was found necessary to close three schools owing to Scarlet Fever and, in addition, four certificates of lowered attendance were issued during the year.

There were two fatal cases of Scarlet Fever during the year.

Artificial means of immunisation against Diphtheria and Scarlet Fever have not been considered practicable and Schick and Dick testing have not been adopted for these diseases in this County.

MEASLES.

The weekly returns of infectious diseases from Elementary schools showed some increase in the incidence of Measles. It was found necessary to close two schools on account of this disease, the average closure in school days being eight and the number of children affected thirty.

Certificates of reduced attendance were granted to 16 schools involving 1,085 children as compared with 11 schools and 1,191 children in 1932. A certificate was also issued to one school involving 150 children on account of Measles and Influenza.

INFLUENZA.

The epidemic which affected the whole country in the early part of the year caused a widespread prevalence of Influenza in this County.

Many of the cases were of a mild type and amongst school children the actual period of absence from school was a short one. It was not, therefore, found necessary to close any school but certificates of low attendance due to the prevalence of Influenza were issued to 132 schools affecting 17,783 children. These figures give some idea of the widespread nature of the epidemic, practically every area in the County being affected to some extent.

There was a considerable increase during the year in the number of deaths recorded as due to Influenza and the death rate showed a rise from 0.45 to 0.57.

PNEUMONIA.

There were 350 cases of Pneumonia notified which is identical with the figure for 1932. Almost sixty per cent. of these cases occurred during the first quarter of the year.

The number of cases occurring was much greater in Rural districts than in Urban and the chief centres from which the notifications came were Coalville, where thirty-two cases were notified during the first quarter of the year, Melton Mowbray and Measham.

PUERPERAL FEVER AND PUERPERAL PYREXIA.

There were 10 cases of Puerperal Fever and 20 cases of Puerperal Pyrexia notified during the year.

The number of deaths recorded as due to Puerperal Sepsis was seven.

ERYSIPELAS.

During the year 99 cases of Erysipelas were notified as compared with 75 cases in 1932. The distribution of the cases was Urban 43 and Rural 56.

GASTRO-INTESTINAL GROUP OF DISEASES.

The number of cases of Enteric Fever notified during 1933 was 8. No case of Paratyphoid Fever was notified.

The cases which occurred were sporadic and no special investigation of any outbreak was necessary.

The cases were distributed over the Urban Districts of Ashby and Loughborough and the Rural Districts of Ashby, Barrow-on-Soar, Billesdon, Market Bosworth, and Melton Mowbray.

One case of Dysentery was notified during 1933.

MALARIA.

No case of Malaria was notified during the year.

DISEASES OF THE CENTRAL NERVOUS SYSTEM.**(a) Encephalitis Lethargica.**

Two cases of Encephalitis Lethargica were notified during 1933, one case from the Urban District of Wigston and one from Belvoir Rural District.

(b) Poliomyelitis.

Three cases were notified as compared with four last year. One case occurred in the Melton Urban District and the others in the Castle Donington and Hallaton Rural Districts.

(c) Cerebro-spinal Fever.

A total of 17 cases was notified as compared with 12 last year. The districts affected were Coalville, Hinckley, Melton Mowbray, Snibston, Swannington, Thringstone, Glenfield, Burbage, Barwell, Bruntingthorpe and Ibstock.

DISEASES LOCALLY NOTIFIABLE.**Chicken Pox.**

This disease was notifiable in certain areas of the County during the year and 96 cases were notified. The Urban districts of Ashby and Loughborough were mainly affected.

No schools were closed on account of this disease but 6 certificates of lowered attendance were issued involving 457 children.

Ophthalmia Neonatorum.

The following is the record for 1933 :—

Notified.	Cases		Vision Un-impaired	Vision Impaired	Total Blindness	Deaths
	Treated					
	At Home	In Hospital				
15	9	6	15	—	—	—

MATERNITY AND CHILD WELFARE SERVICE.

There are thirty-seven Infant Welfare Centres in the Administrative County controlled by the County Council with the assistance of Voluntary Committees. Of these, ten are open weekly and twenty-seven fortnightly. At each session a Health Visitor is in attendance and a Medical Officer is present at least once per month. At all the Infant Welfare Centres, with the exception of Coalville, valuable assistance is rendered by Voluntary Committees whose services are utilised in the keeping of records, etc. They also attend to the social activities of the Centres.

Details of the work under various headings are outlined below.

(a) Administration.

A unified control in administration exists over the Maternity and Child Welfare Service and the School Medical Service. Both Departments act under the direction of the County Medical Officer. With the exception of Dr. Murray and Dr. Dalton, whose duties are confined to the School Medical Department, the same Medical Officers undertake the work of each service and the nursing staff is common to both Departments.

One of the fundamental aims of the preventive health services of the Local Authority should be the complete supervision of the child from infancy to adolescence and for this purpose it is essential that as complete co-ordination as is possible should exist between the Maternity and Child Welfare and the School Medical Departments. Where the work is undertaken by the same Officers this is possible and uniformity of procedure both clinical and administrative can be accomplished.

Unfortunately, uniformity of procedure and complete co-operation are not necessarily synonymous with complete supervision but they mean that the co-ordination is as close as is possible without routine medical inspection of the pre-school child. The factor which acts as the greatest barrier to adequate medical supervision from infancy to adolescence is the falling off in regularity of attendance of parents at Infant Welfare Centres when the infants reach the toddler stage. Moreover, only a proportion of parents attend Infant Welfare Centres with their children.

Before the ideal of complete supervision from infancy to adolescence can be attained it will be necessary to educate public opinion to accept the necessity for regular medical inspection of the infant and pre-school child as has been done in the case of the school child. That there is a need for such inspection will not be denied by any Medical Officer who undertakes the examination of entrants to Elementary Schools; the only question is one of practicability. The periodic examination of pre-school children at selected Centres would present many difficulties but none that are insuperable. Records are available in all areas concerning the infants and pre-school children of each area and the inauguration of medical inspection would be possible by putting these records to use. Inspection on a voluntary basis might not perhaps produce a large response in the initial stages but with a growing sense amongst parents of the benefits to be derived it might be confidently anticipated that in a very few years the numbers availing themselves of such regular inspection would be such as to influence profoundly the health of the pre-school child. The linking up of these pre-school medical inspections with the School Medical Service would be of advantage to the various treatment schemes undertaken by Local Authorities.

If the full advantages are to be derived from the Maternity and Child Welfare schemes of Local Authorities the question of bridging the gap between the early infancy of the child and its entrance to school will have to be faced and a scheme devised which will deal with the maximum number of children on a systematic and regular basis.

In the meantime the fullest use must be made of existing facilities. These are concerned in the main with Infant Welfare Centres, but a great deal of use can also be made of the supervision undertaken by the Health Visiting staff.

In this County arrangements are in force for the transfer of information from the medical record cards in use at Infant Welfare Centres to the School Medical Department upon the child attaining school age. All important items in the medical history of the pre-school child who has attended at an Infant Welfare Centre are thus available to the School Medical Officer at the entrant examination in school.

This arrangement, of course, only covers a proportion of the children but the cards used by the Health Visiting Staff throughout the infancy and pre-school life of the children are also put to use in a similar manner. These cards are filed in a card index system according to the name and date of birth of the child. They are thus available when completed for transfer to the School Medical Department each month. The information gleaned from the cards is not essentially medical but many items of medical, social, and environmental history are obtainable which may have had an important bearing upon the health of the child.

During the year no extension of the service took place by the opening of new Infant Welfare Centres, nor was it found necessary to close any existing Centres. The County is fairly well served by Infant Welfare Centres although in some areas of comparatively dense population no Centre is available. These include districts where, in the past, attempts had been made to conduct an Infant Welfare Centre but owing to the apathy of the parents it was found that the expense incurred in Medical Officers' time and travelling was not justified by the results obtained. In practice the service is bound to be governed largely by the numbers reached educationally and clinically, although theoretically, an Infant Welfare Centre in a thinly populated area is of equal value to the community. Taking into consideration the limited staff available, the multifarious duties in other Departments and the extent of the Maternity and Child Welfare services provided, it can be stated with confidence that the scheme is an eminently successful one.

(b) Clinical Work.

Each Infant Welfare Centre in the County is visited by a Medical Officer at least once per month and certain of the larger centres once per fortnight. The medical work is undertaken entirely by whole-time Medical Officers of the County Council.

Medical examinations of all children at the Infant Welfare Centres are undertaken. Each infant and child under five years of age upon attending the Centre for the first time is submitted to a complete medical examination. The examination includes heart, lungs and abdomen, and enquiry is made as to methods of feeding, sleep and other factors influencing the infant's or child's health and normal development. Errors in method, regularity, or type of feeding, etc., are corrected and advice tendered as to general management. Physical abnormalities are referred for treatment to the private practitioner employed by the parent.

It is the aim of the Department to ensure periodic re-examinations at regular intervals of all children in attendance at Infant Welfare Centres. In addition to these routine medical examinations the Medical Officer is available to parents for consultations regarding any disease or defect occurring in their children.

No treatment apart from that mentioned below is undertaken at the Centres. In so far as possible the clinical work is directed towards the prevention of disease and no treatment is given which would in any way encroach upon the work of the General Practitioner.

Provision is made for ophthalmic and orthopædic treatment in necessitous cases and this forms an important preventive branch of the service. During the year 37 cases of eye defects were examined by the County Oculist and appropriate treatment carried out. Particulars are given in another section of this report concerning the numbers of cases referred for Orthopædic treatment and of the detailed measures in force to secure early ascertainment and treatment of crippling defects.

The Medical Officers made 4,716 clinical examinations during the year and 1,547 children were examined for the first time. The total number of weighings carried out by the Health Visitors was 36,514.

The principal defects observed at examinations made by the Medical Officers were :—

Skin conditions 193, Bronchitis 158, Phimosi 182, Umbilical hernia 86, Gastric trouble 75, Nasopharyngitis 57, External eye conditions 72, Rickets 48, Ear disease 28, Strabismus 41, Hernia 11.

(c) Educational Work.

There can be little doubt that the great improvement manifest in infant health, and the great reduction in infant mortality during the past quarter of a century is largely a result of increased knowledge, on the part of the parents, of correct methods of infant care and management. No amount of clinical work at treatment Centres would have produced such a saving of infant life. It is well, therefore, to remember how important is the educational side of infant welfare work and to give it the prominence which its importance merits.

The tendency to-day in many quarters is to concentrate more and more upon the clinical aspect of infant welfare work and whilst this side of the work has its place, the movement towards converting Infant Welfare Centres into out-patient dispensaries or clearing houses for various ailments is greatly to be deprecated. The true function of the Welfare Centre is an educational one and the object at which the whole system aims is prevention. The surest and shortest route to prevention is by the inculcation of the principles of correct care and upbringing of the infant and young child to the parents in conjunction with regular supervision to ensure that these principles are being applied as taught.

With this system as the basis for the work, and even at the most healthy Infant Welfare Centre, the urge for clinical activity inherent in so many Infant Welfare workers can have its outlet in the periodic medical examination of all infants in attendance at the Centres. These medical examinations, which should be directed towards the detection of early defect or disease, should supplement the educational work and can be used as an opportunity for individual tuition of the parents.

Other forms of clinical work including the treatment of disease by the issue of prescriptions or bottles of medicine may be tolerated at Infant Welfare Centres but they have no real place there. The greater the number of diseased infants and young children diagnosed and treated at an Infant

Welfare Centre the poorer is that Centre as a unit in our system of preventive medicine.

The instruction may be imparted to the parents collectively in the form of short talks on various relevant subjects and by individual advice at the time of the medical examination. The lectures given should follow a systematic course beginning with instruction on ante-natal care and continuing with advice with regard to the infant and pre-school child. Talks may also be included on the commoner infectious diseases and the prevention of serious constitutional conditions such as Rickets. It is well to keep prominently in the forefront of the teaching the essentially preventive type of the work and to dispel from the minds of the parents any lingering misapprehension that the Infant Welfare Centre supersedes the doctor's surgery or the out-patients department of the hospital.

Through the instructions given at Infant Welfare Centres many parents are receiving their first lessons in health education and it is not too much to hope that the interest engendered in the health of their children through these lectures may arouse a desire for knowledge upon subjects connected with their own well being. The educational work at the Infant Welfare Centre may thus have reactions and repercussions which will eventually influence the health of the whole community.

In this County it is not the practice to distribute literature wholesale in the form of pamphlets or leaflets to parents at Infant Welfare Centres. Such indiscriminate distribution is liable to belittle the value of the individual leaflet or booklet of instruction and may bring the whole system of education into disrepute. A special pamphlet dealing with many difficulties encountered by parents in the upbringing of their infants and incorporating instructions for infant feeding was prepared a few years ago and is revised periodically and brought up-to-date. This pamphlet is available for individual distribution to parents by Medical Officers and Health Visitors where there is considered to be need for it. It has been found to be a valuable adjunct to individual tuition with a certain type of parent.

It is difficult to assess directly with anything approaching accuracy, what benefits are accruing from the education undertaken but indications of the good results obtained are not wanting. I pointed out in my Annual Report for 1931 the high percentage of mothers who breast feed their infants even in the industrial areas. As one of the principles laid down in the teaching at the Centres is the necessity for breast feeding the continued high percentage of mothers who follow out this tenet is gratifying and may be taken as a direct indication of the results of instruction. Where it is possible to obtain direct evidence such as this of the beneficial effect of the educational measures undertaken it may be assumed that good results are also being obtained in other ways not so easily discernable.

(d) Statistics.

During the year 978 meetings were held at the various Centres in the County. The total number of mothers on the registers was 3,672 and the number of attendances made was 38,382.

The total number of infants under one year was recorded as 2,327 and the number of attendances made was 19,845. The number of toddlers attending the Centres was 2,298 and these made a total of 25,389 attendances.

The average attendance of children at all Centres during the year was 46.3.

During the year 1,599 women, 1,494 infants under one year of age, and 414 toddlers attended the Centres for the first time. In addition 21 expectant mothers made 173 visits of attendance at the Centres. Of the total number of children born during the year 43.3 per cent. attended the Infant Welfare Centres in the County.

The Medical Officers made 442 visits to Maternity and Child Welfare Centres during the year. The visits of the individual Medical Officers were as follows :—

Dr. Fairer 14 ; Dr. Cowan 27 ; Dr. Anderson 90 ; Dr. Coward 9 ; Dr. Weston 143 ; Dr. Walters 159.

Supply of Milk to Necessitous Mothers.

The arrangements for the supply of milk to necessitous mothers continued in force during the year. At its inception the scheme allowed for the provision of a grant of milk to (a) Expectant Mothers within three months of their confinement ; (b) Nursing Mothers ; and (c) Children under five years of age who on medical grounds were certified to be in need of extra milk.

Owing to the large increase in the number of applications for assistance and the need for stringent economy it was decided in 1931 to restrict the grant to (a) and (b) and to children under two years of age. During the current year it was found necessary to curtail the scheme further by lowering the age limit for children to eighteen months.

Schemes of this nature are apt to grow beyond the limited scope which was originally intended unless they are very carefully administered. What was at the commencement meant to be a purely public health measure might very easily develop into something savouring of public assistance, and in order to obviate this the most stringent precautions are necessary.

Careful investigation of each case is made with regard to both medical and financial circumstances. A report is made upon a special form by the Health Visitor of the district and where possible, as at Infant Welfare Centres, the form is accompanied by a medical certificate. It is obviously impossible to secure the issue of a medical certificate in every case. The income of the household is verified in every case and the whole circumstances are reviewed by the Deputy County Medical Officer who decides whether or not the Committee shall be recommended to make a grant. In so far as the financial circumstances are concerned the grants are subject to a scale adopted by the Committee.

Only liquid milk is supplied and where it is possible to obtain it "Grade A" milk is provided.

Mothers in receipt of grants of milk are required to attend an Infant Welfare Centre, if there is one within reasonable distance, in order that the cases may be kept under supervision by a Medical Officer.

During the year 1,618 applications for milk grants were received and 1,407 were approved by the Committee for periods not exceeding two months, after which time the cases were reconsidered. The total amount expended on this service was £948, this figure being a decrease of £83 on that of the previous year.

Inspection of Children under the Children and Young Persons Acts.

The control of this work is vested in the Maternity and Child Welfare Committee, and the inspections are carried out by the County Health Visiting Staff.

Each child is visited at least once every three months, additional visits being made as circumstances require. A detailed report on a special form is completed by the Health Visitor upon each inspection and these reports are scrutinised by the Deputy County Medical Officer. When circumstances merit it a special visit is made to the home by the Deputy County Medical Officer before any further action is taken.

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

Children and Young Persons Acts, 1908—1932.

No. of cases on Register on December 31st, 1932	....	....	63
No. of new cases	....	....	101
Returned to parents	....	....	31
Adopted	....	....	5
Attained nine years of age	....	....	9
Died	....	....	2
Left County	....	....	20
Transferred to new foster parents	....	....	10
Removed to Poor Law Institution	....	....	4
No. of cases on register on 31st December, 1933.	....	....	83

MATERNAL MORTALITY.

(a) Maternal Deaths.

All maternal deaths occurring in the County continue to be investigated in accordance with the principles laid down in Ministry of Health Memoranda. This work is undertaken by Dr. Cowan in co-operation with the general practitioners of the area.

The simplified form of report issued by the Ministry of Health is used to record the results of the investigation. These reports are treated in a strictly confidential manner and are forwarded direct to the Chief

Medical Officer of the Ministry of Health without any copy being retained locally.

In addition to this usefulness for statistical purposes at the Ministry of Health these investigations are of considerable value locally. Difficulties associated with the practice of midwifery in the area can be discussed with the general practitioner and, if necessary, steps taken to rectify such defects as are in the power of the Local Authority to remedy.

(b) Puerperal Fever and Puerperal Pyrexia.

An arrangement exists for the provision of Consultants and of facilities for bacteriological examination for cases of Puerperal Fever and Puerperal Pyrexia. This scheme came into force on 1st April, 1932, and was to continue for a trial period of twelve months. At the end of that period it was decided to continue the arrangement which had proved of considerable value.

The scheme provided for the services of a number of consultants with special training and experience in obstetrics to be available through the Public Health Department to any general practitioner on request. In addition any necessary bacteriological examinations required by practitioners are undertaken at the County Laboratory.

No responsibility is undertaken at present for the treatment of these cases in hospital but a few beds at Markfield Isolation Hospital will be allocated for this disease early in 1934.

(c) Report by Maternal Mortality Officer (Dr. K. Cowan, Deputy County Medical Officer).

The Maternal Mortality Rate for the County during the year 1932 is returned as 4.79 deaths per 1,000 births. This rate showed an increase upon that for the previous year.

The appended Table demonstrates the returns of Maternal Mortality during the ten years 1924 to 1933.

Leicestershire Maternal Mortality per 1,000 Births.

No. of Puerperal Deaths :—

Year.	No. of Puerperal Deaths :—				Rates per 1,000 Births	
	Births.	Sepsis.	Other Causes.	Total.	Total.	
1924	5,130	3	11	14	2.7	
1925	4,874	8	15	23	4.7	
1926	4,868	5	12	17	3.5	
1927	4,887	7	10	17	3.5	
1928	5,074	12	12	24	4.7	
1929	5,013	9	15	24	4.8	
1930	5,201	7	10	17	3.27	
1931	5,179	5	12	17	3.28	
1932	5,039	5	12	17	3.37	
1933	4,593	7	15	22	4.79	

During the year the question of increasing the scope and efficiency of the ante-natal services of the County has been under consideration, and the following is extracted from a special report on this subject :—

“ For a proper understanding of what is involved in the letter of the Minister of Health by the terms “scope and efficiency” it is essential that it should be realised what are the requirements necessary for the efficient organisation of an Ante-Natal Clinic ; what are its limitations in dealing with the care of maternity, particularly in a rural area and how its use can best be adapted to meet the needs of this Authority.

The Ante-Natal Clinic.

(1) The premises must be suitable in so far as warmth, cleanliness and privacy are concerned. A very important consideration is that of accessibility. The Clinic must be easily accessible to the majority of patients in order that travelling may be minimised in so far as possible. The Medical Officer should be trained and experienced both in obstetrics and ante-natal work and the nurse should be a registered midwife with post-certificate experience in obstetrics and ante-natal work.

(2) The patients will include :—

- (a) Those sent by Medical practitioners.
- (b) Midwives' cases.
- (c) Those coming independently.
- (d) Those sent by Health Visitors.

Midwives are obliged under the Central Midwives' Board rules to undertake the Ante-natal care of their cases and to keep records, but many are unable to do so efficiently and in assisting and educating them to do so the Clinic will find great scope for useful work. Midwives should be encouraged to bring their patients to the Clinics and to do their ante-natal work there under supervision until their knowledge of what is required and their skill in detecting abnormalities are sufficient to enable them to do the routine work in ordinary cases by themselves.

Any doctor wishing to transfer the whole or part of the ante-natal care of a patient to the Clinic or to obtain a second opinion in a difficult case should be able to do so.

(3) *Following-up.* Arrangements should be made to follow up those cases who fail to keep subsequent appointments at the Clinic. This can be done through a member of the Health Visiting Staff who should co-operate with the midwife in charge of the case in securing such further ante-natal care as may be necessary for the welfare of the patient.

(4) *Hospitals.* Hospital accommodation must be provided for (1) cases needing institutional treatment for complications of labour and the puerperium and also the patients suffering from abnormal ante-natal conditions and inter-current diseases. (2) Cases where the home conditions are unsuitable for a confinement.

(5) *Subsidiary activities.* Sterilised maternity outfits might be supplied at cheap rates.

In general the Ante-Natal Clinic should function as an *Ante-Natal Centre* for all the maternity work of the area and be in fact a place for advice for any expectant mothers who are in need of social and medical assistance from doctors, midwives and nurses.

Limitations of the Ante-Natal Clinic.

(1) The most obvious disadvantage of the Ante-Natal Clinic is that the doctor in charge of the ante-natal work seldom, if ever, delivers the patient or is the doctor called in by the midwife in emergency.

(2) The Ante-Natal Clinic can only be successful in populous districts and obviously some other means must be employed for undertaking ante-natal work in scattered rural areas.

(3) The Clinic is dependent entirely for its success upon the co-operation of the local medical practitioners and midwives.

In order to overcome these disadvantages in paragraphs (1) and (3), every effort must be made to secure the goodwill and co-operation of the general practitioners of the district. Accurate records of each case must be kept and be available, with the consent of the patient, to the doctor or midwife concerned. In return a report of the confinement should be sent to the Clinic not only for use in future pregnancies but in order that the Medical Officer may check the ante-natal findings with the result.

The Existing Scheme.

Consideration of the working of the existing Ante-Natal Clinics at Hinckley and Wigston Magna, in the light of the foregoing remarks shows that while these Centres have accomplished a considerable amount of good work in the face of many difficulties they fall far short of the ideal.

The premises, particularly at Hinckley, are unsuitable to be used as an Ante-Natal Centre for the district. If patients, midwives and doctors, are to be encouraged to attend these centres it is essential that the premises should be attractive and the equipment should be adequate to meet the needs of all forms of ante-natal supervision.

A monthly session at each clinic is insufficient to deal with the numbers of patients who should be dealt with. The numbers at each ante-natal session should not exceed 10-12, thus a monthly clinic can only deal with 30 patients per annum at the rate of 10 per session and an average of four attendances per patient.

Each of these ante-natal clinics should hold a weekly session.

The figures supplied by Dr. Weston from Hinckley Ante-Natal Clinic show that 50 per cent. of the cases attended the Clinic at seven months or after, and that 56 per cent. of the cases attended only once and 26 per cent. only twice. Dr. Weston states that two reasons may be adduced to account for this (1) that most women make their first attendance too late to come even a second or a third time, and (2) that when a woman is told that everything is normal at her first visit she tends to

carry away the impression that it is not worth while to come again even if she has been told to do so.

These difficulties can only be overcome by the education of the midwives of the districts in the necessity for sending their patients to the ante-natal clinic at an earlier stage of pregnancy and by the following up of those cases who fail to re-attend by a Health Visitor to ascertain the cause and to endeavour to secure a requisite number of attendances by each patient for adequate supervision.

In order to secure further co-operation from the general practitioners of the area it is recommended that an obstetric consultant be appointed to attend each ante-natal clinic at one session per month to examine and advise upon those cases referred by medical practitioners and such other cases as the Medical Officer of the ante-natal centre may desire.

The Hospital accommodation in the County for in-patient treatment of women found to be suffering from abnormal ante-natal conditions or intercurrent disease is inadequate. The same may be said with regard to complicated cases of labour and of cases where the home conditions are unsuitable for the confinement. At present the only accommodation available for these cases is that provided at the Leicester and Leicestershire Maternity Hospital. While the Authorities of this Hospital have afforded every facility for the admission of urgent County cases, frequently such cases have required a considerably longer period of treatment than the funds of the Maternity Hospital were able to bear without undue strain. It would appear that the needs of the County for in-patient treatment in the Leicester and Leicestershire Maternity Hospital could best be met by making a grant of a definite fee per week for each patient admitted to the Maternity Hospital under the aegis of the County Council, in addition to the present subsidy of £50 per annum.

It must be borne in mind that any increase in the facilities for ante-natal treatment in the County and the provision of consultants for complicated maternity cases, will mean an increased demand for hospital beds. Consideration should, therefore, be given to the question of the provision of such beds at focal points in the County. This can best be undertaken by means of an arrangement between the County Council and the local voluntary or cottage hospitals to admit those maternity cases where the home conditions are unsuitable and which usually will be normal uncomplicated cases. Complicated cases can be admitted to the Leicester and Leicestershire Maternity Hospital where they will have the benefit of expert obstetric assistance. Nothing in this arrangement would prejudice the right of the County Council to admit a complicated case to a local Voluntary or Cottage Hospital in an emergency, but the arrangement would exist primarily for normal cases whose home conditions are unsuitable for the confinement. In this connection it will be remembered that Loughborough and Market Harborough are Maternity and Child Welfare Authorities.

If the foregoing suggestions for increasing the scope and efficiency of the present ante-natal arrangements are approved then I would recommend an extension of the arrangements by the provision of a further ante-natal clinic at Coalville, but it should be clearly understood that the provision of any further ante-natal clinics by the County Council without

due regard being paid to the needs of those at present in existence is most undesirable.

One or two ante-natal clinics in populous areas of the County form only the nucleus of a scheme for the care of maternity as there remain not only the thickly populated areas of the County to be catered for but also the scattered rural areas where the need is just as urgent. It is essential, therefore, that at the commencement a sound foundation should be laid by taking every care that the initial arrangements function as efficiently and as adequately as is possible.

The foregoing suggestions, therefore, are based entirely on the thesis of increased scope and efficiency *before* extension."

I dealt, in some detail, with the organisation of ante-natal services for the County in the Annual Report for 1931, and the above Memorandum is concerned only with the question of placing such ante-natal services as exist in the County upon a sound basis.

A comprehensive scheme to provide adequate ante-natal services for the whole County would require further facilities by means of Ante-natal Clinics in populous Urban areas. Rural areas where ante-natal clinics are impracticable would require to be covered by general practitioner services.

The provision of consultant services to deal with complicated cases in any part of the County when required by a general practitioner in emergency would be necessary.

There is need also for the education of the expectant mother in the necessity for regular ante-natal examinations. Much of this educational work can be undertaken by the midwives in their districts and midwives should be instructed concerning the importance of securing adequate ante-natal supervision for their cases. The midwife wields a considerable influence over the women in her district, which, if brought to bear with regard to the need for pre-natal medical examination, would be of material assistance in securing a greater proportion of expectant mothers to avail themselves of the facilities provided.

ANTE-NATAL CENTRES.

(a) Report on Clinics.

(1) *The Hinckley Clinic.*

The work of this centre has been continued during the year under the control of Dr. Mary Weston as Medical Officer.

The following is a report by Dr. Weston on the work of the Clinic during the year :—

"While it is noticeable, as in former years, that the figure for re-attendance is not yet high enough even to approximate to the ideal of adequate supervision of pregnancy, yet the work done is, in our opinion, sound as far as it goes.

Diagnosis of conditions threatening to complicate parturition enables patients immediately to be put in touch with their own doctor and very materially increases the opportunities for successful treatment.

Moreover, advice on the general hygiene of pregnancy, to women in no sense abnormal, continues to constitute a valuable part of the work.

The return of mothers who have attended in previous pregnancies shows that the advantage of ante-natal care is recognised and appreciated.

The question of adapting our present clinics to serve an even wider need and more completely to realise the potentialities of a complete ante-natal scheme is now under discussion and it is hoped that by next year the proposed new buildings at Hinckley will be in use and that feasible measures will have been devised for extending this valuable work.

No. of sessions held during 1933	....	....	....	....	11
No. of expectant mothers who attended	....	....	....	....	68
Total number of attendances made	....	....	....	....	107
Average attendance per session	....	....	....	....	9.7 "

(2) *The Wigston Magna Clinic.*

This Clinic has been conducted on the same lines as last year under Dr. Constance Walters as Medical Officer. Eleven sessions were held during 1933 and the total number of attendances made was 100. The number of new cases was 36 and the average attendance per session was 9.1.

(b) Instruction for County Midwives in Ante-Natal Treatment.

County Midwives may attend the Ante-Natal Clinic at the Leicester and Leicestershire Maternity Hospital for a course of practical instruction in ante-natal care.

A panel of midwives has been formed and the midwives attend the Clinic in rotation. Each midwife attends the centre during four sessions for general instruction at a charge of 5/- per session, the cost being met entirely by the County Council.

MATERNITY HOSPITALS.

An arrangement exists with the Leicester and Leicestershire Maternity Hospital for the reception of County cases into the Hospital and a grant of £50 is made by the County Council to this Institution.

Provision is made for the reception of unmarried expectant mothers at St. Saviour's Home, Northampton. During 1933 one case was admitted to this Home from the County. In addition, arrangements are in force with the Ely Diocesan Home, Cambridge, and the Salvation Army Home, Birmingham, to receive cases if required.

The County Council allows the expenditure of £20 per year for the Convalescent Home treatment of nursing mothers.

An arrangement is in force with the Warwickshire County Council to receive, at their Maternity Home at Rugby, maternity cases from Leicestershire near the Warwickshire boundary.

Hospital of St. Cross, Rugby.

Provision has been made for the admission to this Institution of complicated maternity cases (other than Puerperal Fever or Puerperal Pyrexia) from the County.

(a) Emergency Cases.

The County Maternity and Child Welfare Committee undertakes responsibility for the payment of the cost of such cases (£3 . 3 . 0. per week) provided that the County Medical Officer is notified as soon as possible after the patient's admission. The recovery of the whole or part of the charge is subsequently considered by the Committee.

(b) Ordinary Cases.

Approval of the Maternity and Child Welfare Committee must be obtained before an ordinary case can be admitted. Some contribution towards the cost will be required except in necessitous cases.

TREATMENT OF CHILDREN.

In addition to the provision made for the treatment of Tuberculous children at the County Sanatorium, ill-nourished and delicate children from three to five years are received at the Children's Convalescent Home, Woodhouse Eaves.

The following is a report from the Medical Officer to the Home :—

Charnwood Forest Convalescent Home for Children.

Report on the Children admitted during the year 1933 under the Leicestershire County Council Maternity and Child Welfare scheme, who occupy *three* beds at the above Home.

	Tuberculosis.		M. & C.W.		Total.	
Total number of children admitted	2		16		18	
Average stay of each child (in days)	32.0		43.0		41.8	
Average gain in weight	lbs.	ozs.	lbs.	ozs.	lbs.	ozs.
....	2	8	3	5	3	4
State of Health on Discharge.						
Much improved	—		6		6	
Improved	1		9		10	
Satisfactory	1		0		1	
Diseases for which children were admitted.						
Debility	—		15		15	
Rickets	—		1		1	
Surgical Tuberculosis	2		—		2	

These children usually arrive in a very debilitated condition and it is wonderful to note the improvement which they get from their stay at the Home. Some have been really striking cases.

(Signed) W. REGINALD TUCKETT,
Medical Officer to the Home.

BIRTH CONTROL.

During the year the County Council completed arrangements for the attendance of County patients at the Leicester City Birth Control Clinic.

The Maternity and Child Welfare Committee at a meeting in January, 1933, approved the principle of instruction on Birth Control being afforded to selected cases from the County.

As a result the following arrangements for co-operation with Leicester City Authority were effected :—

(1) That married women from the County who are certified by a medical practitioner to be in need of advice on contraceptive methods on account of gynæcological conditions, or to whom pregnancy would be detrimental to health, be permitted to attend the Leicester City Birth Control Clinic.

The kind of cases considered suitable include women suffering from some serious constitutional disorder such as Tuberculosis, Heart Disease, Kidney Disease, Diabetes, Profound Anæmia, certain types of Arthritis, Toxic Goitre ; also women suffering from mental disorder including inheritable forms of Insanity, Epilepsy, or Feeble-mindedness, as well as women suffering from local gynæcological affections or malformation.

(2) The fee of one guinea per case, irrespective of the number of attendances, will be paid by the County Council.

(3) Any appliances required will be supplied from the Clinic at cost price and will be paid for by the patient.

(4) The decision as to whether a case is or is not suitable to be accepted will rest with the Medical Officer in charge of the Clinic after the first interview at the Clinic.

(5) Only cases which are accepted by the Medical Officer of the Clinic as suitable will be charged for *i.e.*, no charge will be made in non-accepted cases for the preliminary interview.

(6) The arrangement will be terminable by one month's notice on either side.

The scheme was put into operation on 1st September, 1933, and at the end of the year nine patients had been referred either by their own doctors or by a member of the County Medical Staff and had received instruction from the Medical Officer in charge of the Clinic.

The cases referred included patients suffering from Heart Disease, Pulmonary Tuberculosis, Epilepsy, Contracted Pelvis with previous Cæsar sections and other gynæcological conditions.

THE COUNTY ORTHOPAEDIC SCHEME.

(Dr. K. Cowan, Deputy County Medical Officer).

This branch of the work which deals with the ascertainment and treatment of all forms of crippling in the area, has grown with rapidity during the past few years. The scheme now includes several out-patient clinics and arrangements are in force with Orthopædic hospitals for the in-patient treatment of serious cases.

With the development of the scheme many old standing cases of crippling defect have been dealt with. Certain of these have required long periods of expensive in-patient treatment and with the limited accommodation available have acted to some extent as a barrier to the early treatment of lesser defects. As these older cases reached the stage of cure or were crossed off as requiring no further treatment it was possible to undertake the treatment of a greater number of new cases.

If the maximum benefit is to be gained from the treatment provided for these cases it is essential that they should be secured for treatment at as early a stage of defect as possible. In 1931 arrangements were made for improving the methods employed in the ascertainment of crippling defects in the County. For this purpose special attention was paid to the pre-school child. Health Visitors and Secretaries of Infant Welfare Centres were circularised regarding the importance of securing treatment for slight deformities and of devoting special attention to their detection. The Health Visiting Staff were also required to notify all cases of deformity or disability encountered to the Central office irrespective of any other action taken with regard to treatment. This enabled each case to be followed up by the Medical Staff if necessary and appropriate treatment secured.

The excellent response to these measures is shown by the following figures of the number of cases referred amongst pre-school children. In 1930 the number of cases notified amongst children under five was 16 ; in 1931 the number increased to 37 ; in 1932 the number was 116 ; and during the current year 131 cases have been referred. Not all of these cases referred were suitable for orthopædic treatment but even with those who were not suitable some other form of treatment was found to be necessary.

These arrangements continue in force and it is to be hoped that with the early ascertainment rendered possible the orthopædic scheme will deal in the future with an increasing proportion of early defects.

The greatest handicap under which the scheme labours is the difficulty in obtaining sanction for the immediate treatment of urgent cases whether by means of provision of apparatus or admission to hospital. Cases which are examined at an out-patient clinic and found to require admission to hospital or the provision of some form of remedial appliance will suffer if they are forced to wait for some weeks until a Committee meets to consider whether or not they shall be provided with such treatment and, if so, what contribution they must make towards the expense incurred. Very

often the delay which occurs may mean that the patient's condition has become so much worse that a longer stay in hospital will be necessary or that the previous measurements taken for the provision of apparatus are useless and must be repeated.

Apart from the humanitarian aspect of the question this delay in sanctioning necessary treatment proves itself to be a false economy as obviously in many cases extra expenditure is incurred in consequence of the lapse of time between the diagnosis and the sanction being given for treatment.

It must be borne in mind that orthopædic treatment for serious defects *e.g.*, surgical tuberculosis, very often involves long periods of expensive treatment and that the Local Authority having once put their hand to the plough must carry on until the fruits are gathered. Furthermore, the long periods of in-patient hospital treatment necessary for individual cases involves the provision of an adequate number of beds to enable such long periods of treatment to be available to every case which may require a long stay in hospital. If the attempt is made to conduct an orthopædic scheme without these fundamental necessities being incorporated it cannot be hoped that the fullest benefit will accrue to the cases treated or that the expenditure per case will compare favourably with that in other areas where the scheme is conducted on sounder lines.

In January work was commenced in the new Health Centre at Melton Mowbray. The premises are used as a School Clinic, Infant Welfare Centre, Tuberculosis Dispensary and Orthopædic Out-patient Clinic. Included also is a dental treatment room and a recovery room. The orthopædic section consists of rooms equipped for all types of plaster work, electrical treatment and remedial exercises. A lamp is also provided for treatment by Ultra-violet rays. This section of the Clinic which contains much valuable apparatus can be cut off from the remainder of the building, by means of a folding partition, when not in use.

It is to be expected that with an entirely new departure such as an orthopædic treatment centre there will, at the commencement, be small numbers of cases attending for treatment ; but making allowances for this fact, it cannot be said that the new Centre has been a success either from the point of view of numbers treated or the types of treatment undertaken. Notwithstanding special investigations in the area by Medical Officers and Health Visitors with a view to the detection of defects suitable for treatment at the Orthopædic Clinic, the numbers have remained small and the treatment in the main has consisted of remedial exercises.

Plans have been drawn up for the erection of a Health Centre on similar lines at Hinckley, and it is hoped the work of building will commence in the early future. There would appear to be a definite need for such a Centre in this populous district and many cases of crippling are known to the Department to exist in the Hinckley area.

With the completion of the Hinckley Clinic the chain of out-patient treatment Centres in the County will be completed. Every area in the

County will then be within comparatively easy reach of an Orthopædic Clinic and facilities will be available for orthopædic treatment for every case of crippling deformity in whatever district it may occur.

The following are the details of the working of the Orthopædic scheme :—

(1) Ascertainment.

Special arrangements, detailed above, are in force for the early ascertainment of disability and deformity amongst pre-school children and the marked increase in the numbers of these children treated is a gratifying indication that the measures employed are meeting with success.

Physically defective children of school age suitable for orthopædic treatment are referred from routine school inspections, school clinics, etc., by the School Medical Officers. In addition cases are brought to the notice of the Department by School Nurses, Teachers, School Attendance Officers, etc. A register of all physically defective school children is kept at the central office and cases are followed up periodically to ensure that treatment is being provided.

Cases of Surgical tuberculosis are referred to the Orthopædic Surgeon where necessary, by the Tuberculosis Medical Officers who are responsible for the ascertainment and following up of these patients.

The importance of this branch of the work is fully appreciated and every effort is made to ensure that by developing and co-ordinating all the agencies available no case is permitted to progress to a late stage of defect without having been detected and treatment offered.

(2) Orthopædic Clinics and Hospitals.

(a) The Coalville Clinic.

This Clinic is directly controlled by the County Council. The treatment is in the hands of Mr. Allan, of Coleshill Hospital.

The Clinic is open on two afternoons per week from 1-30 p.m., and the Orthopædic Surgeon attends at one session per month when all new cases are seen and the treatment of those in attendance comes under review.

A fully trained Orthopædic Sister and a Masseuse from Coleshill Hospital attend each session to carry out the treatment prescribed by the Orthopædic Surgeon.

All financial transactions concerning the provision of apparatus, appliances, etc., are carried out through the Central Office. A whole-time Health Visitor is present at each session and attends to the clerical work, arranges the appointments and generally assists with the work of the Clinic.

The new premises have proved of great value, larger numbers have been dealt with per session, and it has been possible to afford a greater

variety of treatment. It is hoped early in the new year to provide a lamp for treatment by artificial sunlight.

The parent hospital connected with this Clinic is Coleshill Hospital, Birmingham. All cases dealt with at the Clinic requiring in-patient treatment are admitted to this hospital. There is thus complete continuity in treatment available for every case, the same staff dealing with the patient throughout the whole course of treatment both as an out-patient and in hospital ; the Clinic and hospital forming a complete clinical unit.

(b) The Loughborough Cripples' Guild.

This Clinic differs from Coalville in that it is administered by the Voluntary Committee. The Local Authorities, Leicestershire County Council and Loughborough Town Council, contribute towards the Guild according to the number of treatments their patients receive.

The charge for ordinary County cases is 2/6 per attendance and small additional charges are made for special forms of treatment.

The Clinic is open all the week for massage and other forms of treatment.

The Staff consists of Mr. Malkin, Orthopædic Surgeon to Harlow Wood Hospital, who visits the Clinic at one session per month ; the Orthopædic Sister who attends once a week from Nottingham ; one masseuse who is employed whole-time and four voluntary workers.

The Clinic is associated with the Nottingham Cripples' Guild and forms a clinical unit with Harlow Wood Hospital. All patients attending this Clinic and requiring hospital treatment are admitted to Harlow Wood Hospital under the care of Mr. Malkin, thus securing complete continuity of treatment.

(c) Melton Mowbray Clinic.

This Clinic is under the direct control of the County Council. The treatment is in the hands of Mr. Morris, Orthopædic Surgeon to the Authority.

The Clinic is open on one afternoon per week from 2 p.m., and the Orthopædic Surgeon attends at one session per month.

A qualified masseuse attends at each session and carries out the treatment prescribed by the Orthopædic Surgeon. A whole-time Health Visitor is also present at each session to arrange appointments, attend to the clerical duties, and generally assist in the work of the Clinic.

This Out-patient Clinic forms a clinical unit with the City General Hospital, Leicester. Any patients in attendance who require in-patient treatment are admitted to the City General Hospital under the care of Mr. Morris. Complete continuity in treatment is thus assured for every case dealt with.

(d) Leicester City Clinic.

Cases are referred to this Clinic, which is controlled by the Leicester City Authority, from County areas adjacent to the City. Treatment is in the hands of Mr. Morris and the Clinic is staffed with an Orthopædic Sister and a Masseuse.

In addition to the out-patients department which is capable of dealing with all forms of orthopædic treatment, there are a few beds available for in-patient treatment of short stay cases.

The Clinic is conducted in conjunction with the City General Hospital where all in-patient treatment of a lengthy nature is undertaken.

These various units of the Orthopædic scheme, which are self-contained clinically, are united under a central administrative control. All arrangements concerning treatment, provision of appliances and matters of general policy are undertaken at the Central office in Leicester. The lack of a single clinical direction for all the treatment undertaken may be in some directions, a disadvantage, but it is compensated for to a great extent by the possibilities of comparison of the work and the costs of the different units working under different clinical control.

(3) Additional Facilities.

In addition to the systematic orthopædic work mentioned above treatment is available at other centres as follows :—

(a) Leicester Royal Infirmary.

The orthopædic department at this hospital undertakes out-patient treatment. No charge is made for attendance but financial responsibility is assumed by the County Authority for surgical appliances in necessitous cases according to the means of the patient.

These cases are notified to the Department by the Secretary of the hospital with full particulars of the nature of the disease and the treatment recommended.

(b) Rugby Orthopaedic Clinic.

Arrangements are in force whereby the County Maternity and Child Welfare Committee sanctions the charge of 2/6 per attendance for Leicestershire children whose treatment is undertaken by the Clinic provided that :—

(1) Application is first made to the County Medical Officer to enable the case to be visited by one of the medical staff.

(2) Each application is considered by the Committee after an investigation into the financial circumstances.

(3) Monthly reports are rendered by the Officers of the Clinic to the County Medical Officer.

(c) *Hinckley and Market Harborough.*

In both these districts a certain amount of orthopædic work is being undertaken by voluntary bodies—at Hinckley by the Cripples' Guild and in Market Harborough at the Cottage Hospital. The establishment of a new Clinic at Hinckley will place the orthopædic work in this area upon a sound basis in the near future and cases which cannot easily be dealt with at Market Harborough are now treated at Leicester under the County Authority's scheme.

(4) Provision of Surgical appliances.

The following arrangements are in force for the provision of surgical appliances and apparatus to County cases.

Upon application being received inquiry is made into the financial circumstances and particulars of each case are placed before the appropriate Committee for their decision. Recovery of cost is made from the parents according to a scale approved by the Committee and necessitous cases are provided for free of charge.

(5) After-care Supervision.

After-care of patients discharged from hospitals is undertaken at the various orthopædic clinics in the County. Each Clinic works in conjunction with its parent hospital and the supervision of patients after their period of treatment in hospital is carried out by the same staff as dealt with the case previously.

There are, apart from the actual clinical supervision of these patients, many ways in which voluntary assistance would be of value in after-care. In matters of training, employment, and general social welfare, voluntary workers or a voluntary Association working in co-operation with the Local Authority can be of great assistance to the individual cripple and to the whole orthopædic scheme. The Local Authority, within the limitations imposed by statute and by financial considerations, does much to alleviate crippling but a great deal has to be left undone if voluntary agencies are not available to supplement these official activities.

Unfortunately there is a dearth of voluntary workers in the County for this particular object. Certain areas are well served by Voluntary effort but no local association exists for the care of cripples. During the year the organiser of the Central Council for the Care of Cripples paid a visit to this area and it was hoped, as a result that interest would be stimulated and voluntary activities be increased. Very little progress was made and conditions remain much the same but eventually it may be possible that a voluntary association for the care of cripples will be organised in the County and the work of the Local Authority supplemented by this means. As the orthopædic scheme develops the need for such assistance grows concurrently and however efficient the official scheme may be a sphere for voluntary effort will always exist.

VENEREAL DISEASES.

The County Council makes provision for the treatment of Venereal Diseases by co-operation with the Authorities of Leicester Royal Infirmary and until March, 1933, with Loughborough General Hospital. This Clinic was closed on 31st March. The out-patient clinic at Loughborough was conducted by Dr. J. B. Dalton, of the County Medical Staff and was administered directly by the County Council. The Clinics at Leicester Royal Infirmary are administered by the Governing Body of that Institution, county cases being received and treated under financial arrangements approved by the Ministry of Health. At the Leicester Clinic the treatment of males is carried out by Dr. C. Hamilton Wilkie, and Dr. Bessie Symington is in charge of the female section.

Pathological Work.

Pathological examinations are performed through the agency of the County Laboratory. Blood for Wassermann reactions, however, is transmitted to the Pathological Laboratory of the Leicester Royal Infirmary as it is not economical to do these except when specimens are received in large numbers.

The following are extracts from the Annual Reports of the Medical Officers who conduct the Clinics for Venereal Diseases :—

Loughborough V.D. Clinic, 1933.

This clinic was closed at the end of March in accordance with instructions from the Ministry of Health. It had been in existence 13 years, during which period 451 cases (300 male and 151 female) had attended for treatment or for diagnosis only. The total number of attendances made by these patients was 6,851 (4,074 males and 2,777 females).

At the end of the year there were 28 patients under treatment or observation, and from 1st January to 31st March, 1933 there were 8 new cases. All these cases were disposed of as follows :—

Ceased to attend before completing treatment	....	3
Discharged cured	....	7
Transferred to other centres or own doctor	....	26
		—
		36

J. B. DALTON,
Medical Officer of Treatment Centre.

Report on Male V.D. Clinic for Year 1933.

By C. Hamilton Wilkie, M.B., B.Sc., Ch.B.

General.

The Leicester Royal Infirmary Male Venereal Treatment centre consists of both in-patient and out-patient departments. This is the one centre for the City of Leicester and for Leicestershire.

Throughout the year under review the centre has been working at full pressure, although, as will be seen from the detailed figures below, the number of new cases has been less than for the previous year.

The system of Case Recording instituted in 1931 still continues to be highly satisfactory. The various statistics given below were easily and accurately obtained.

Special attention has been given to the following up of defaulters and to Venereal Disease Propaganda.

There has been no relaxation during the year in following up those who default ; the method of so doing is described under its appropriate heading later in this report.

During December I gave in Leicester two public lectures on V.D., accompanied by lantern slides, one to a male audience and the other to a female audience. On both occasions the halls were packed. So successful were these lectures that arrangements have been made to repeat similar lectures in the City and also to have lectures extended to the principle towns of Leicestershire. I am of the opinion that such lectures can do much towards preventing venereal disease, or if not preventing at least encouraging those infected to come at once for treatment.

Colonel Harrison, the V.D. Specialist of the Ministry of Health paid one official visit to the V.D. Department.

During the year I was officially appointed as Consulting Venereologist to the City General Hospital. Regular official visits to the Hospital have since been made.

The following tables give details concerning the numbers for the year and any remarks fall under their proper headings.

NEW CASES.

TABLE I.

Number of Male Cases dealt with for the first time during the year under review (exclusive of cases transferred in from other treatment centres).

	Venereal.						Condi- tions other than Venereal.		Totals.		Grand Totals.
	Syphilis.		Soft Chancre.		Gonorr- hoea.		T.	C.	T.	C.	
	T.	C.	T.	C.	T.	C.					
Syphilis, primary sero- negative	3	1	—	—	—	—	—	—	3	1	4
.. primary sero- positive	1	5	—	—	—	—	—	—	1	5	6
.. secondary	3	2	—	—	—	—	—	—	3	2	5
.. latent in first year of infec- tion	—	—	—	—	—	—	—	—	—	—	—
.. all later stages	31	12	—	—	—	—	—	—	31	12	43
.. Congenital	5	6	—	—	—	—	—	—	5	6	11
Soft Chancre	—	—	—	1	—	—	—	—	—	1	1
Gonorrhoea, first year of infection....	—	—	—	—	148	60	—	—	148	60	208
.. later	—	—	—	—	1	1	—	—	1	1	2
Conditions other than Venereal	—	—	—	—	—	—	160	67	160	67	227
Totals	43	26	—	1	149	61	160	67	352	154	507

TABLE II.

Number of Male Cases dealt with for the first time in 1933 known to have received treatment at other Centres for the same infection.

Syphilis.		Soft Chancre.		Gonorrhoea.		Totals.		Grand Total.
T.	C.	T.	C.	T.	C.	T.	C.	
11	3	—	—	30	8	41	11	52

TREATMENT.

There have been few advances in the treatment of gonorrhoea and syphilis during the past year.

As anti-syphilitic drugs, Salvarsan and its substitutes, and Bismuth are still the main drugs in use. Mercury is favoured by some. A routine course of treatment for uncomplicated primary and secondary cases of syphilis has been in force throughout the last two years. While one cannot always follow a uniform course, I feel that, provided there are no contra-indications, this greatly adds to the standards of our work. Careful recording of cases will eventually provide valuable statistics. This course, in which "914" preparations along with Bismuth, are given, is as follows:—

ROUTINE COURSE A.

Week	"914"	Bi	Week	"914"	Bi
1	0.45 gm.	0.24 gm.	12	—	0.24 K1 Mixt.
2	0.6	0.24	13	0.75	0.24
3	0.6	0.24	14	0.75	0.24
4	—	0.24	15	0.75	0.24
5	0.6	0.24		—	—
6	0.6	0.24	Total	6.6 gms.	3.6 gms.
7	—	0.24			
8	0.6 or 0.75	0.24	16	W.R. and detailed	
9	0.6 or 0.75	0.24		Clinical Examination.	
10	—	0.24 K1 Mixt.	17-21	4 weeks Hutchinson's Pills.	
11	—	0.24 K1 Mixt.	21-25	4 weeks no treatment.	
				Repeat Course.	

We continue to have excellent results from intramuscular administration of liver extract in the treatment of arsenical dermatitis. So marked has been the recovery after treatment that I increased the later doses of "914" in Course A from 0.6 gm. to 0.75 gm. as I considered the risk of intolerance less, and the therapeutic effect much better.

It will be observed that we are dividing our new primary syphilitic cases into "sero-negative" and "sero-positive" cases (see Table I). This division is important when grading cases for treatment.

In the treatment of cases of syphilis of the nervous system, intravenous injections of Tryparsemide have been continued. Malarial treatment has also been employed in one case with promising results.

C. HAMILTON WILKIE,

M.B., Ch.B., B.Sc.

(Medical Officer of Male
Venereal Department).

Report on the Female Clinics for Venereal Disease for Leicester and Leicestershire for the year 1933.

NEW PATIENTS.

An analysis of new cases is as follows:—

This is exclusive of the cases who had not finished their course on January 1st, 1932.

County Cases.

Syphilis ....	....	....	....	59
Gonorrhœa ....	....	....	....	59
				118

County Patients' attendances were :—

To Royal Infirmary 2,835.

Syphilis ....	....	....	....	1,528
Gonorrhœa ....	....	....	....	1,307

To St. Mary's Home Clinic 397.

This makes a total of attendances of County Patients 3,232.

TREATMENT.

Routine methods of treatment for both syphilis and gonorrhœa have varied very little, this year.

Syphilis.

This is still treated by the intravenous and the intramuscular method of giving compounds of arsenic and bismuth, aided by giving drugs by the mouth and sometimes by inunction. A three months course of treatment is aimed at, but the individual woman varies so much in her power to absorb and stand the drugs that the number and kind of drug given to each one has to be considered carefully. The chief drugs given have been : Stabilarsan, Neokharsivan, Metarsenobillon, Sulphastab, Bisoxyl, Quinostab and Novostab.

Acquired Syphilis. (City and County cases).

On analysing the early cases of syphilis only 5 have presented themselves for treatment in the early infectious stages, and all are being well treated and have not defaulted.

This is a very great improvement on the figures of 1929 and 1930, when 20 to 30 infectious cases were diagnosed and no definite cause for the epidemic could be found.

This year all female cases in the early stages have been offered a bed in the ward and all have accepted. This has insured that no woman coming to the Clinic suffering from infectious syphilis, could pass on the disease.

Of the later cases of syphilis 54 have been diagnosed and 9 defaulted before the first course of treatment was finished.

Congenital Syphilis.

Time and care has been taken over these cases and the family history of the syphilitic woman is always enquired into.

Each one is encouraged to bring her children up for examination, and for the children requiring treatment, a short time at the commencement at one of the evening clinics has been set aside.

The boys over 6 or 7 years of age are sent to the male clinic, the mother is told the nature of the disease and a card given to her to pass on to her husband directing him to come up for examination.

No congenital syphilitic patient is discharged until puberty, each one is advised to attend at intervals for examination.

33 new cases have been treated in the children's, male and female clinics this year.

It is difficult to state the exact number of female attendances as frequently boys over 6 or 7 are brought to the female clinics by their mothers.

Many of the children are sent from the Ophthalmic Department of the Royal Infirmary to which they have been sent by private doctors.

Only 6 have been traced from the School Medical Inspections. There is practically no co-operation with these departments of the City or County, and for this there is a great need.

Treatment of Ante-natal Syphilis.

This is given, as it has been in previous years. Treatment by injection and medicine is begun as early as possible in pregnancy and continued to the end.

This care results in the birth of a healthy child and true prevention of congenital syphilis is carried out.

All women who have had anti-syphilitic treatment are urged to present themselves for a further course, should they again become pregnant and the response to this appeal is encouraging.

Most of the pregnant women have been sent from the Maternity and Child Welfare Medical Officer who states that in every case, the woman has submitted herself for treatment when advised to do so.

Treatment of Gonorrhœa in women is still a very difficult problem.

Pathological investigation is much more involved and is much less frequently positive than in the male. This leaves the diagnosis more difficult and the periods of observation longer.

The ideal method of treatment in the female is to keep her in bed, to give light diet with fluids, to use local disinfection as frequently as can be borne and in that way the germ is destroyed and complications prevented.

Treatment of the young newly married woman is a serious question and the beds in the ward are used for this class of case whenever room permits, but not nearly enough undergo this form of treatment.

At St. Mary's Home, there is more opportunity to treat the young unmarried girl in this way.

In the Clinics and Treatment rooms, infected women and girls are dressed frequently and each one is watched for some months after treatment has been stopped, before she is considered cured.

Ante-natal Treatment.

In my opinion symptoms of gonorrhœa during pregnancy result in anæmic and weakly babies in the first years of life, as well as the danger of acute ophthalmia during the first week.

Pregnant women suffering from suspicious discharge have been advised to come regularly for disinfection and observation, and to continue until the symptoms have disappeared or until confinement.

The women who have not had sufficient treatment have been admitted for confinement when necessary, but if the signs of inflammation have abated, they are sent back to their own private doctor or midwife.

In-patient Department.

Patients admitted, have been chiefly those suffering from the complications of venereal disease.

Admissions made :—

114 at the Royal Infirmary.

25 at St. Mary's Home.

Maternity Ward.

12 confinements have taken place and in each case the baby has been apparently healthy, but all are under observation.

In every case the mother is advised to take her child to the nearest Child Welfare centre so that a connecting link is established.

Ophthalmia Neonatorum.

8 cases have been admitted during the year and each has been placed under the care of the Honorary Ophthalmic Surgeon for direction of treatment.

The mothers of these babies have all been examined and all are under treatment. A card is sent to the father of the child advising him to go to the Male Clinic and each has attended. Every case has made a good recovery.

The number of cases of Ophthalmia Neonatorum notified for 1933 from the

City	....	....	....	....	15
County	....	....	....	....	15
					<hr/>
Total	....	....	....	....	30

Looking at the fact that only 8 have been passed on to the cots in the Venereal Ward for treatment, it shows that 22 have been treated elsewhere.

This shows that 44 parents have escaped treatment in the V.D. Department. These should be on the list of new cases.

Some of the parents have no doubt been treated by private doctors, but no proof exists. In my opinion it shows that the Act of Notification of Ophthalmia Neonatorum is not being made good use of.

Vulvo Vaginitis.

Gonorrhœal infection of female children is persistent and difficult to cure.

Five cases have been admitted to the ward where treatment is undertaken and must be of long duration.

The parents of these children have all been told the nature of the infection and advised to be examined and everyone has complied.

The School Medical Officers sent 2 cases. There is a bad break in the chain of co-operation here.

Amongst cases admitted were :—

Operation cases due to complications of gonorrhœa as: Salpingectomy, colostomy, appendicitis, curettage, abscess of Bartholini's gland, etc.

Cases not needing operation as :—

Salpingitis—these cases need long rest and treatment. Severe rheumatism, etc.

Cases of syphilis were :—

Secondary infectious cases.

Two cases of Dermatitis and two of Jaundice.

One case of severe Keratitis of the eyes was admitted.

Five cases of miscarriage.

Pregnant women suffering from both or either disease are frequently admitted to give them a good chance of rest and frequent disinfection for a time. These cases are either admitted subsequently for confinement, or passed on to their own doctors or midwives if considered free of infection.

At St. Mary's Clinic very few syphilitic patients are treated.

It is used chiefly for treatment of gonorrhœa in the more superior class of out-patient who cannot pay for good treatment and who otherwise would not attend.

St. Mary's Home is particularly useful in providing Hostel accommodation for the young unmarried girl.

These girls are infectious, require treatment and in many cases are out of work.

Here they are treated, put to bed if necessary, and given special nourishment. The convalescent ones do the domestic work of the wards and day room and later are allowed to go out to find work, and help is given to each one by the Wantage Sisters who give their services and also by an out-worker who receives a small sum.

Cases discharged after completion of cure, who have undergone good treatment and who show no signs of infection number 81, and this year no case has returned after having been discharged as cured.

27 patients have been passed on to other Clinics for continuation of treatment.

Following up.

This is a very important item but is difficult because of the privacy necessary.

A patient who discontinues attendance is liable to be a danger to others and afterwards a serious expense on the community owing to the later results of untreated venereal disease.

The comparatively small number treated at St. Mary's Home makes it possible for this to be done adequately.

Girls come up year after year after being medically discharged, in a friendly way and are always welcomed. They respond to letters sent, and this year only 4 defaulters are on the books.

At the Royal Infirmary this work is much more difficult. Letters are sent to defaulters and are responded to sometimes.

Child Welfare Work is another channel along which defaulters are induced to return to complete treatment.

But the main and frequently the only way, is the establishing of a friendly interest between those working in the Clinics and wards and the patient who will then return again and again for friendly advice and help.

(Signed) BESSIE W. SYMINGTON,

M.D., B.S. (Lond.).

Medical Officer of Female Venereal Clinics
for Leicester and Leicestershire.

SANITARY CIRCUMSTANCES OF THE COUNTY.

(a) RAINFALL IN 1933.

The following Table prepared by Mr. G. F. Stacey, the Surveyor of Wigston Magna Urban District, shows the rainfall month by month during the year :—

Month.	Total Depth.	Greatest Fall in 24 hours.		No. of days with .01-in. or more.	No. of days with .04-in. or more.
	Inches.	Inches.	Date.		
January	1.38	0.46	16th	18	10
February	2.30	0.64	26th	14	8
March	2.27	0.47	20th	14	11
April	1.41	0.40	30th	7	6
May	1.39	0.34	5th	17	12
June	2.27	0.65	25th	14	13
July	1.45	0.35	10th	13	9
August	0.78	0.33	23rd	8	6
September	1.82	0.60	25th	10	8
October	2.19	0.77	11th	17	11
November	1.58	0.37	15th	19	11
December	0.30	0.09	31st	11	2
Total	19.14	—	—	162	107

I am indebted to Mr. Stacey for the information with reference to the rainfall in his district.

(B) GENERAL SURVEY.

The financial stringency continued to affect the development of the Sanitary services during 1933.

(1) WATER.

From the information given in the District Sanitary Inspectors' reports it would seem that there has been no serious shortage in most areas in spite of the long continued drought. The following information is obtained from these reports :—

URBAN DISTRICTS.

Ashby-de-la-Zouch.

The mains have been extended in Leicester Road and Prior Park.

Coalville.

1,150 yards of new main have been laid in existing roads and 300 yards in new estates.

Hinckley.

The Council has passed a scheme for a new service reservoir for the Park Road area.

Loughborough.

944 yards of new main.

Melton Mowbray.

Extensions to mains in Sandy Lane, Asfordby Road, and Thorpe Road.

Oadby.

Extensions as required by the development of the district.

Shepshed.

Extensions in Leicester and Charnwood Roads.

Wigston.

567 yards of new main.

RURAL DISTRICTS.**Ashby-de-la-Zouch.**

The water main has been extended at Measham along the Snarestone Road as far as the Red Banks Brickyard.

Blaby.

The water main has been extended from Narborough to Huncote a distance of two miles, also in Lutterworth Road, Blaby, by 400 yards, and 1½ miles at Glenfield Frith.

Hinckley.

The water mains have been extended in the parishes of Burbage, Barwell and Earl Shilton. Ten wells were found to be unsatisfactory and the water mains are being extended in order that these may be closed.

Lutterworth.

In the parishes of Ullesthorpe, Broughton Astley, and Willoughby Waterleys, the supply is not sufficient in quantity and in portions of these parishes is of poor quality.

In the parish of North Kilworth certain wells have become dry, owing it is believed to the extensive pumping at the Market Harborough Urban District Council waterworks.

Market Bosworth.

200 houses have been connected to the public water mains in 1933.

Market Harborough.

Owing to the drought the yield in a considerable number of private wells has diminished considerably, and in many it has failed completely. Fortunately, however, no undue hardship has been experienced as the occupiers of the houses where the supplies have failed are able to obtain their supplies from neighbouring wells. The public wells, scattered throughout the district are holding out, with a few exceptions remarkably well.

Melton Mowbray.

Owing to the very dry summer in a few of the villages there was a shortage of water, but in most of them the supply was sufficient for drinking and household purposes.

(2) RIVERS AND STREAMS.

Leicestershire is well watered by streams but there is only one natural sheet of water of any size and that is Groby Pool.

The basin of the River Soar forms two-thirds of the area of the County. One small portion of the basin is in Nottinghamshire and a very small portion in Warwickshire. The river rises by two heads one at Copston Magna in Warwickshire and the other near Ullesthorpe in Leicestershire. The portion in Warwickshire is under one mile in length. The two head streams unite near Sharnford, and from here to the confluence with the River Trent, a few miles to the east of Sawley, the river practically bisects the County passing at the centre through the City of Leicester. The main tributary is the River Wreake, entering near Rothley House, other small tributaries are the River Sence (Eastern) and the Thurlaston and Rothley Brooks. The confluences of these with the main river are below Narborough, Croft, and Cossington Mill respectively. Beyond Loughborough, the river forms a boundary between this County and Nottinghamshire, the boundary running East from the river along the King's Brook.

The River Wreake receives one large tributary the River Eye, just above Melton Mowbray, and thus drains the North-Eastern quarter of the County apart from the Belvoir district.

One-eighth only of the County does not drain to the River Trent. The Lutterworth and Kilworth district drains to the River Avon, the main tributary in Leicestershire being the River Swift. The River Welland, with its tributary the Eye Brook, forms the South-Eastern and Eastern boundaries of the County and drains the corresponding areas. A very small portion in the North-East drains to the River Witham.

The districts draining to the River Trent other than by the River Soar are the Belvoir district, in which the streams reach the River Trent by the Rivers Devon and Smite, and the district to the West of the Charnwood Forest. In this latter area the main streams are the Rivers Mease and Sence (Western). Both join the River Anker, the former outside the County, the latter on the Western boundary of the County. The River

Anker finally joins the River Trent and thus seven-eighths of the County drain to the River Trent which itself forms a portion of the North-Western boundary.

As sewage effluents enter all streams of any size in the County at some place in their course, frequent inspections of the rivers and streams are carried out. Samples are taken for the purpose of laboratory analysis in order to detect pollution. In spite of the abnormally dry weather, most of the samples gave satisfactory results; complaints though were received where streams had themselves dried up and the greater portion of the stream or even the entire stream was composed of sewage effluent.

The investigations of the River Soar under the auspices of the Ministry of Agriculture and Fisheries were carried out in September. These are a part of the annual hydrographical survey of the Trent watershed. Samples collected at various points on the river were submitted to laboratory analyses and the dissolved oxygen content and the oxygen absorbed in five days were estimated.

(3) DRAINAGE AND SEWERAGE.

During the year the County Medical Staff paid 95 visits to sewage works or farms in the County and 14 visits to villages where the only treatment of sewage is tanking, and 8 where the sewage discharges directly into dykes or streams. 49 inspections were made of rivers and streams additional to those carried out at inspections of sewage disposal works.

The farms are inspected with regard to their construction and mode of working. The co-operation of the Surveyor or Sanitary Inspector responsible for the farm, is sought, whenever practicable, in making these inspections. When the officer of the Sanitary Authority is present at the inspection it is possible to discuss defects and their remedies, together with suggested improvements or extensions on the site.

If the general state of a farm is not satisfactory the official in charge is communicated with and a re-inspection made after a short interval. The same procedure is carried out where the effluent is shown, by laboratory analysis, to be unsatisfactory.

If the effluent, by polluting a neighbouring water course is such that it is likely to prove a source of danger to the community, a special report is made to the Public Health Committee. A copy of the Medical Officer's report is forwarded by direction of the Committee to the Local Sanitary Authority which is responsible for the works, and these steps usually result in an abatement of the pollution.

The reports of the local sanitary officers also give information regarding the drainage and sewerage of the district. The facts in the summaries given below are obtained from these reports and the Medical Officer's reports on his inspections.

Urban Districts.**ASHBY-DE-LA-ZOUCH.**

There has been no extension of sewers during the year. The reconstruction of the storm water culvert, which carries the Gilwiskaw Brook under the town, has been commenced and the work will be completed early in 1934.

The two sewage farms at Packington and Willesley, which were brought into use in 1932, are giving satisfactory results.

ASHBY WOULD'S.

There are three schemes in this district :—

(i) Stone Row—This is a small scheme and a new 9-inch outfall sewer has been put in to replace the old 6-inch sewer.

(ii) Donisthorpe Lane.—These works were becoming overloaded and extensions were commenced in 1932 and completed in 1933.

The extensions comprise 1 new settling tank, 2 new percolating filters, 1 new humus tank, and 6 sludge drying beds. A pumping station has been provided for pumping the sludge on to the drying beds. (The 12-inch outfall sewer has been re-laid so as to discharge the whole of the sewage into the new works). The old works consisted of two sets of tanks and filter beds independent of each other, the newer set has been extended as above, the older set are now reserved entirely for storm water. This has been done by re-laying the 12-inch outfall sewer so as to discharge the whole of the sewage on to the new works by intersecting both the old outfall sewers. From the point of intersection a new 12-inch storm water sewer has been laid to discharge on to the old works. On inspection the works were functioning in a satisfactory manner.

(iii) Albert Village.—These works are situated in Derbyshire.

COALVILLE.

The sewers have been extended by 870 yards, 520 yards being laid privately on new estates.

The new works at Kelham Bridge, brought into use last year, are working well and the low level land has now been relieved, with a resulting improvement in the effluent. This farm is now a good example of combined filtration and land treatment, as also in The Snarrows farm.

LOUGHBOROUGH.

618 yards of sewer have been laid in the Park Road area.

MARKET HARBOROUGH.

As mentioned last year the services of a consultant chemist have been obtained. Under his direction experimental work using very small plots is still in progress. This, together with a thorough overhaul of the methods of distribution and dosing based on the experimental results, has affected

a considerable improvement in the quality of the effluents, and still further improvement may be expected.

MELTON MOWBRAY.

Extensions of the sewers have been made to new building estates on Sandy Lane and Scalford Road.

SHEPSHED.

The land here had not been used for a considerable time *i.e.*, since the tanks and filter beds were installed. These were being overloaded and the utilising of the land has resulted in a satisfactory effluent.

WIGSTON.

1,292 linear yards in all of new sewer have been laid in various streets in the district, and to factories in Glen Parva.

Rural Districts.

ASHBY-DE-LA-ZOUCH.

The schemes brought into use in 1932 at Measham and Donisthorpe are working satisfactorily, at both these farms banks have been made during the year to prevent as far as possible flooding of the lower part of the works.

In the case of Donisthorpe the improvement due to the abandoning of the small and totally inefficient works is very marked, the small stream into which the effluent passed being now clear and pure while previously it was always turbid.

BARROW-ON-SOAR.

The sewers have been extended at Sileby and Walton-on-the-Wolds. New sewers have been laid privately at Birstall.

A Ministry of Health Inquiry was held during the year at Thurcaston into a scheme of sewerage and sewage disposal for the parishes of Cropston and Thurcaston, the proposed sum being £11,150. The sanction of the Ministry was obtained, subject to engineering modifications. Owing to the heavy burden on Thurcaston equivalent to 3/5d. rate the scheme has since been abandoned.

BLABY.

In all some 3,785 yards of sewer have been laid in the Braunstone, Glenfield, and Lubbesthorpe districts.

It is proposed to erect a small sewage works for the houses round Enderby cross roads.

At Croft where practically the whole of the sewage enters the brook, the Council have fenced off the worst part of the brook but there is no treatment of the sewage. Large amounts of sludge have been dug out of the brook at Huncote, and the sewage tanks and ditches at Thurlaston

have been cleaned out, and the ditches back fenced. A scheme is now in preparation to treat the sewage from the village of Croft.

The Braunstone sewage farm, which came into use in 1932, gave unsatisfactory results for some time but improved facilities for sludge disposal and methods of working have resulted in a marked improvement. The small stream receiving the effluent was practically dry above the outfall.

CASTLE DONINGTON.

The works at Castle Donington itself have now been overloaded for some years, mainly because of the large amount of storm water. A Ministry of Health Inquiry was held in December, the proposals being to build a new storm water culvert instead of the present inefficient one and to modernise the sewage disposal works. The sanction, applied for, was for a total loan of £6,400.

HINCKLEY.

During the year 520 yards of sewer were laid in Stoney Stanton and Barwell, and a scheme for the sewerage of the Three Pots Estate, Burbage, was submitted to the Ministry of Health.

A sewerage and sewage disposal scheme for the village of Higham-on-the-Hill was being prepared at the end of the year.

LOUGHBOROUGH.

The sewage farm at Wymeswold was found to be unsatisfactory. A large amount of work has now been done on it and an improvement has resulted. Further measures are under consideration.

LUTTERWORTH.

A Ministry of Health Inquiry was held on the 15th September, on an application for sanction to a loan of £3,550 for the modernisation of the Lutterworth sewage farm, which has become inadequate to deal with the needs of the district.

MARKET HARBOROUGH.

In the parish of Fleckney the night soil is now being discharged into the public sewer, this has resulted in a saving of £38 per annum to the parish and avoiding the nuisance of tipping on the land. This arrangement is stated to be working satisfactorily.

MELTON MOWBRAY.

Sewers have been extended for a total distance of 510 yards in the following parishes, Saxby, Waltham, Abb Kettleby, Great Dalby and Twyford.

A new sewage works has been erected at Stathern consisting of detritus and sedimentation tanks and percolating filter with rotating arms, and the necessary sludge beds. The whole of the village is dealt with at these works.

At Waltham and Eaton small schemes, dealing with part of the villages, only have been completed.

The Council have had under consideration the provision of sewage works at Nether Broughton and Long Clawson, and these will be proceeded with during the coming year.

As a result of complaints of pollution of the River Wreake, a Ministry of Health Inquiry was held in October in regard to a scheme for the sewerage of that portion of the parish of Asfordby not already connected to the Asfordby Hill sewage works. The proposal is to gravitate the sewage to one pumping station and pump the sewage to the present works which are to be practically doubled in equipment.

The filter bed at Thorpe Satchville has been re-made during the year and the land utilised to the fullest extent, but the effluent though improved is not yet satisfactory.

(4) CLOSET ACCOMMODATION.

590 conversions of privies and pail closets to the water carriage system were made during the year. This is a decrease compared with 1932 (728). The greatest number of conversions was in the Coalville Urban District (104). Other districts in which the number of conversions exceeded 50 were Shepshed Urban District, Barrow-on-Soar Rural District (No. 1 area) Hinckley Rural District, and Ashby-de-la-Zouch Rural District.

In addition 217 privies were converted to pail or earth closets during the year, this is an increase of 97 on 1932.

(5) SCAVENGING.

Improvements or alterations in this branch of sanitary work are noted below.

Controlled tipping is now in use in four urban districts, this system being brought into use at Hinckley during the year. The same method is in use in two rural parishes.

At Coalville an S. & D. freighter has been ordered with a view to effecting an improvement over horse drawn vehicles, and it is hoped that financially also the change will be beneficial.

Mechanical, in place of horse, transport has also been provided in the Market Harborough Urban District.

The replacement of ashpits by ashbins continues, and it is reported from Shepshed Urban District that there are now no ashpits in the scavenged area.

Controlled tipping is to be commenced in the Wigston Urban District in April, 1934.

In the Rural Districts :—

Barrow-on-Soar Sanitary District No. 1. There is under consideration the conversion of all pail closets to the water carriage system where facilities are available.

Billesdon—A scheme for emptying cesspits is urgently required in the parishes of Thurnby, Bushby, and Scraftoft, and is now being considered by the Council.

Blaby—The Council have purchased 9 acres of land at Enderby with a view to centralising the scavenging of the whole district.

Lutterworth—The private tip formerly in use at North Kilworth has been closed and a scavenging scheme is now necessary.

Market Harborough—The disposal of the night-soil at Fleckney, by depositing in the sewer, is noted above.

Melton Mowbray—A motor vehicle adapted for the removal of night-soil and refuse has been purchased and is to be used in scavenging the ten larger parishes.

(6) SANITARY INSPECTION.

The following information has been extracted from the reports of the District Sanitary Inspectors :—

Premises visited	....	....	....	....	22,899
Defects or nuisances discovered	....	....	....	....	9,332
Complaints received	....	....	....	....	1,396
Inspections for all purposes	....	....	....	....	56,020
Notices served :—					
Informal	....	....	....	....	5,679
Formal	....	....	....	....	603
Summons issued	....	....	....	....	6
Convictions obtained	....	....	....	....	6

(7) PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYE-LAWS OR REGULATIONS.

(a) Common Lodging Houses.

There were 7 such in the County, and 51 visits of inspection were made during the year. Of the two at Ashby-de-la-Zouch one was closed during the year, and the remaining one was made satisfactory. At Coalville informal action resulted in the abatement of overcrowding. At both Coalville and Market Harborough action was taken with regard to vermin. The two houses at Melton Mowbray are in good condition.

(b) Tents, Vans and Sheds.

As these structures are temporary in nature exact figures cannot be given but approximately 201 visits were paid to 148 vans or other habitations. In Barrow-on-Soar, No. 1 District, 3 complete inspections were made to some 80 vans, these are not included in the previous figures.

URBAN DISTRICTS.**Ashby-de-la-Zouch.**

There was only one van, this was found on three occasions to be unsatisfactory and was removed from the district.

Coalville.

There are 5 vans in the district, two vans present last year have now moved away. One additional van settled here on land where the bye-laws were not being complied with and the owner, on being warned that prosecution would follow, left the district.

Loughborough.

There are now no permanent dwellings of this class, tents and vans are inspected on arrival into the district and they are generally moved out almost immediately.

Market Harborough.

10 encampments stayed for short periods and then moved on. 8 contraventions of bye-laws were dealt with.

Shepshed.

Notices were served on the occupiers of two vans and these were removed.

Thurmaston.

Statutory notices were served on the owners of land in Melton Avenue to remove vans, tents, etc., in one case a summons was taken out and a conviction obtained.

RURAL DISTRICTS.**Barrow-on-Soar. No. 2 District.**

Three vans have been demolished at Fosse Road, Syston, and the owner of the four now left has just recently commenced erecting a bungalow and has promised to clear the other vans away when they become vacated.

A gradual improvement has been noted.

Blaby.

A special Committee are dealing with the temporary dwellings and have asked the owners to close 7 at Dominion Estate, 8 at Kirby Frith Hall, and 1 at Glenfield.

Loughborough.

The six vans were removed after notice had been given.

Market Bosworth.

10 of these dwellings were closed during the year. Police Court proceedings were taken to close the caravans at Ellistown Road, Ibstock, and an order was given in respect of five vans. Other proceedings are pending.

In the districts not referred to above, conditions were satisfactory.

(c) Canal Boats.

There are 43 boats registered with Authorities in the County, 44 visits of inspection were made, but no contraventions of regulations were found.

(d) Premises in which offensive trades are carried on.

277 inspections were made and 3 contraventions of regulations rectified.

(8) SMOKE ABATEMENT.**URBAN DISTRICTS.****Ashby-de-la-Zouch.**

Three nuisances dealt with.

Hinckley.

88 observations on 21 chimneys showed 14 nuisances. These were abated in some cases by smoke abatement plant, transference to more suitable premises, burning oil instead of coal, and ceasing to burn leather scrap. In addition improvement was effected by more attention to stoking and change of fuel.

Loughborough.

Observations were taken and a letter sent to the owner if a nuisance was discovered ; no further steps were necessary.

Market Harborough.

68 observations, 12 complaints, 9 nuisances discovered and abated.

Wigston.

41 observations were made, following which when necessary, visits were paid. In five cases only was informal action necessary.

RURAL DISTRICTS.**Barrow-on-Soar. No. 1.**

Three warnings given.

Barrow-on-Soar. No. 2.

There were two complaints during the year both of which nuisances were abated, after informal notice by the use of better fuel and improvement in the management of the plant.

Blaby.

5 nuisances found during the year of which 4 were abated.

Hinckley.

10 thirty minute observations discovered 3 nuisances, one of which was abated by heightening the stack.

Lutterworth.

One factory was causing a nuisance through using bad fuel and a wrong method of stoking, this was corrected after an inspection had been made and instructions given.

Market Bosworth.

One case remedied by extension of chimney.

BACTERIOLOGICAL AND CHEMICAL WORK.

The following examinations were made in the County Laboratory during the year :—

Bacteriological milk examinations	....	....	1,885
Sputa for tubercle bacilli	....	....	1,295
Throat swabs for diphtheria	....	....	981
Sewage and water analyses	....	....	335
*Wassermann tests (collection only)	....	....	168
Hair for ringworm	....	....	133
Urine, general and bacteriological	....	....	116
Urine for tubercle bacilli	....	....	86
Widal tests for typhoid fever	....	....	64
Milk for fat content	....	....	44
Films for gonococci	....	....	37
Blood counts	....	....	27
Cerebro-spinal fluid for meningococci	....	....	12
Cerebro-spinal fluid, general and cytological	....	....	14
Fæces for B. typhosus	....	....	13
Miscellaneous	....	....	23
Total	....	....	5,233

*The samples of blood for Wassermann reaction are sent to the Leicester Royal Infirmary.

The total number of examinations made was 159 less than last year, but had it not been for the fact that specimens of sputa from patients in sanatoria are now examined at the Markfield sanatorium this number would have been much larger. It so happens that the decrease in the number of these examinations of sputa is fortunate, as the growing demand for the examination of samples of milk by urban and rural districts is now well towards straining the resources of the laboratory and its staff to the utmost limits.

There is also a decrease of 175 in the number of throat swabs examined for the presence of the diphtheria bacillus. This decrease has a most welcome significance, in that the number of notifications of cases of this disease in the county has dropped from 309 in 1930, to 128 in 1933. Throat swabs from patients in the Isolation Hospital at Markfield are now examined there.

The laboratory has been in existence fourteen years and now, more than ever, continues to be a most valuable adjunct to the public health services of the county. The total number of examinations made during the whole period totals 55,945. Also, it must not be forgotten that the laboratory furnishes a source of revenue, as throat swabs from isolation hospitals, sputa for T.B., some water examinations, and milk samples from urban and rural districts, are paid for by the authorities concerned. The total approximate revenue for the year was £356.

Milk Examinations.

There is an increase of 248 in the number of examinations made, and this number has steadily increased to the total of 1,885 this year, this being 1,190 more than the number examined in 1925, when the scheme was started, when the number was 695.

These 1,885 samples were received from the following sources:—

Urban and rural districts	....	....	....	1,013
Supplies to school children	....	....	....	366
"Grade A" producers	....	....	....	388
Miscellaneous	....	....	....	118

Dependent on the bacteria count and B. coli content, the samples from urban and rural districts are classified as "Good," "Fair," "Moderate," or "Bad," and the following table shows how the 1,013 samples from these sources came within these four categories. Details of the classifications have been given in previous reports.

URBAN DISTRICTS :

Total.	Good.	Fair.	Moderate.	Bad.
466	332	73	5	56
	(71.2%)	(15.7%)	(1.1%)	(12%)

RURAL DISTRICTS :

Total.	Good.	Fair.	Moderate.	Bad.
547	371	89	6	81
	(67.8%)	(16.3%)	(1.1%)	(14.8%)

COMBINED URBAN AND
RURAL DISTRICTS.

Total.	Good.	Fair.	Moderate.	Bad.
1,013	703 (69.4%)	162 (16%)	11 (1.1%)	137 (13.5%)

The corresponding figures for the total number of examinations made in the year 1925 are given here for comparison, and the inference is obvious as they were then :—

Total.	Good.	Fair.	Moderate.	Bad.
589	320 (54.3%)	112 (19%)	14 (2.4%)	14.3 (24.3%)

Of the 25 urban and rural districts in the county, all but two of the latter have at some time sent in samples, and these two are so situated geographically, as to render it impracticable.

A further analysis of the results of the examinations made during the year under review is of great interest in that it shows what can be done by milk producers exercising simple care and cleanliness in their methods, in spite of the extraordinarily hot and dry summer of this year. This analysis shows that :—

398 or 39%	contained less than 30,000 organisms per c.c.
367 or 36%	„ between 30 & 200,000 „ „
248 or 25%	„ more than 200,000 „ „

And that :—

In 644 or 64%	B. coli were absent from 1/10th c.c.
„ 82 or 8%	„ „ present in 1/10th but not in 1/100th c.c.
„ 174 or 17%	„ „ „ „ 1/100th „ „ 1/1000th c.c.
„ 113 or 11%	„ „ „ „ 1/1000th c.c.

643 or 63.5 % of the samples came up to the standard "Grade A" milk, that is, had a bacteria count of less than 200,000 organisms per cubic centimetre and contained no B. coli in 1/100th part of a cubic centimetre. Even better results are shown if bacteria count only is considered as the number of samples reaching the required standard was 765 or 75.5%.

A similar analysis of the results of the examinations of samples of the milk supplied to school children in penny bottles shows that :—

180 or 49%	contained less than 30,000 organisms per c.c.
124 or 34%	„ between 30 & 200,000 „ „
62 or 17%	„ more than 200,000 „ „

And that :—

In 292 or 80%	B. coli were absent from 1/10th c.c.
„ 15 or 4%	„ „ present in 1/10th but not in 1/100th c.c.
„ 37 or 10%	„ „ „ „ 1/100th „ „ 1/1000th c.c.
„ 22 or 6%	„ „ „ „ 1/1000th c.c.

Where available "Grade A" milk is supplied to the schools, and where this is not possible the supplier is expected to make every effort to produce milk which is, bacteriologically, of "Grade A" quality, and 75% of all the milk supplied conformed to this standard. On bacteria count only, this percentage was as high as 83.

During the year, 388 samples of "Grade A" milk were examined and only 45 were not up to the required standard. Several of these 45 were repeat samples from farms where some difficulties had arisen.

Great credit is due to the sanitary inspectors who collect the milk samples. It is due to their keenness and co-operation that so many samples have been examined, and the improvement which has taken place in the milk supplies of the county is directly traceable to the whole-hearted efforts made by them in instructing those farmers who have had adverse reports on the milk supplied by them. Evidence of the interest now taken by the farmers is shown by the fact that several come to the laboratory to find out "what this milk examination business really is," and it is sometimes obvious that "those who came to scoff . . ." go away in quite a different spirit, evidently realising that the scheme is as much for their benefit as that of the consumers' and not merely an attempt at "official interference."

Diphtheria.

The 981 swabs for diphtheria were received from the following sources :—

General practitioners	....	....	....	....	367
Isolation Hospitals	....	....	....	....	388
Schools	....	....	....	....	226

The 226 swabs from schools were taken from children at Castle Donington, Kegworth, Oakthorpe, and Desford, where cases of diphtheria had occurred.

Tuberculosis.

The 1,295 specimens of sputa were received from :—

Tuberculosis medical officers	....	....	....	....	679
General practitioners	....	....	....	....	616

In addition to the specimens of sputa, 86 specimens of urine were examined for T.B. and 4 of them were positive, as were 295 of the sputa.

Sewage and water analysis.

The number of sewage and water analyses (335) shows an increase of 100 over the number last year. With the exception of 14 samples taken from the river Soar and tributaries in conjunction with the Ministry of Agriculture and Fisheries, (hydrographical survey of the Trent watershed), the samples analysed were of drinking supplies, sewage effluents, and rivers and streams containing effluents.

Hair for ringworm.

The school medical officers and nurses were responsible for sending practically all of the 133 specimens of hair for examination for the spores of ringworm. Many of the children suspected of suffering from this disease attend the laboratory on Saturday mornings. Of the total, 66 of the specimens were positive.

Typhoid and Paratyphoid fevers.

There is an increase this year in the number of specimens of blood received for the diagnosis of typhoid and paratyphoid fever. The number of specimens was 64 against 43 last year. Four of them were found to be positive.

Venereal diseases.

In connection with venereal disease, 37 examinations of pathological material were made in the laboratory. These were all films for the detection of gonococci, and 33 of them were from general practitioners and 4 from the V.D. clinic at Loughborough.

In addition, this clinic forwarded 19 of the 168 specimens of blood for Wassermann reaction ; the remaining 149 were from general practitioners. The V.D. clinic at Loughborough was closed at the end of March, and the figures given therefore only relate to the first three months of the year.

General.

A matter of interest relating to the year's work is the following table, which shows from which districts in the county the various specimens have been received.

URBAN DISTRICTS.				RURAL DISTRICTS.			
Ashby-de-la-Zouch	....	98		Ashby-de-la-Zouch	....	229	
Ashby Woulds	....	13		Barrow-on-Soar	....	530	
Coalville	....	293		Belvoir	....	31	
Hinckley	....	276		Billesdon	....	151	
Loughborough M. Borough		322		Blaby	....	602	
Market Harborough	....	139		Castle Donington	....	197	
Melton Mowbray	....	255		Hallaton	....	11	
Oadby	....	74		Hinckley	....	162	
Quorn	....	14		Loughborough	....	113	
Shepshed	....	58		Lutterworth	....	147	
Thurmaston	....	88		Market Bosworth	....	316	
Wigston	....	161		Market Harborough	....	122	
				Melton Mowbray	....	281	

Specimens were also received from the following :—

Loughborough V.D. Clinic	23	Blaby Isolation Hospital	....	98
Loughborough General Hospital	21	Hinckley	„	171
Markfield Sanatorium	....	Melton	„	199

In presenting this report, it again gives me much pleasure to record the valuable assistance rendered by my two laboratory assistants, Messrs. J. N. Graham and H. F. Warner, who continue to perform their work to my entire satisfaction.

J. A. FAIRER,
County Medical Officer and Bacteriologist.

HOUSING.

The progress made during the year by the Rural District Councils with their plans for re-housing and for repair of existing houses are set out in the accompanying tables. It will be observed that a considerable amount of work has been undertaken during the year particularly with regard to the provision of houses for the replacement of unfit temporary dwellings, overcrowded houses and houses required to be demolished.

The figures shown are those supplied by the Rural District Councils in their annual returns to the County Council and are entirely the result of the surveys made by the Rural District Council officials. No direct knowledge is available to the County Council as to local conditions since no surveys have been undertaken of housing conditions in the County by officers of the County Council.

In previous Annual Reports I have outlined the policy adopted by the County Council to meet their obligations under the Housing Act, 1930, and have commented upon the limitations imposed by that policy. The position remains unaltered and as no application has been received from a District Council under Section 34 (2) of the Housing Act, 1930, for a grant from the County Council it has not been considered necessary to make a local examination of housing conditions in any area.

Housing (Rural Workers) Acts.

It is regrettable that greater use is not made of these Acts in dealing with the housing problem in the County. The Acts provide very advantageous terms for the re-conditioning of rural houses and the conversion into houses of buildings not so previously used. Assistance may be given by the Local Authority to owners in the form of grants or loans under certain conditions. Grants may not exceed either two-thirds of the estimated cost of the works or the sum of £100 in respect of each dwelling and assistance may not be given where the value of the completed building will exceed £400 or when expenditure is less than £50.

The present time would appear opportune for wider use of the powers conferred by these Acts. In other areas where greater advantage has been taken of the Acts by property owners wonderful results have been attained in the conversion of disused buildings into dwelling houses at a very reasonable cost to the owners. It has thus been possible to re-house many families at an economic rent and without encountering any of the difficulties associated with the acquisition of sites and the building of new houses.

During the year three applications for assistance under the Acts were received by the County Council. Two grants (£100 and £140) were made in respect of five cottages. The remaining application was refused as it did not come within the provisions of the Acts.

Table 1. REPAIR OF HOUSES.

RURAL DISTRICT.	No. of houses on 31.12.33 requiring repair.	No. of houses to which repairs were being undertaken but which had not been completed by 31.12.33.	No. of houses to which repairs have been completed during 1933.	
			By R.D.	By Owners.
Ashby-de-la-Zouch	92	52	—	40
Barrow-on-Soar	—	—	—	—
Belvoir	—	—	—	—
Billesdon	41	8	—	33
Blaby	274	131	—	168
Castle Donington	29	—	—	83
Hallaton	6	—	—	—
Hinckley	15	10	—	3
Loughborough	—	—	—	—
Lutterworth	114	53	—	81
Market Bosworth	132	40	—	129
Market Harborough	16	—	—	29
Melton Mowbray	241	—	—	55
(a) TOTALS	960	294	—	621

(a) Not including particulars for the Barrow-on-Soar and Loughborough R.D.'s., as the returns for these Districts have not been received.

**NEW HOUSES FOR REPLACEMENT OF TEMPORARY DWELLINGS, OVERCROWDED HOUSES,
and HOUSES REQUIRING DEMOLITION.**

Table 2.

RURAL DISTRICT.	New houses on 31.12.33 actually required to replace :—			New houses approved by M. of H. but not completed by 31.12.33.		New houses contemplated to be built by R.D.C.	New houses completed during 1933.	
	Temporary dwellings.	Over-crowded houses.	Houses requiring demolition.	Commenced.	Not commenced.		Occupied on 31.12.33.	Not occupied on 31.12.33.
Ashby-de-la-Zouch	—	42	90	60*	—	90	43	7
Barrow-on-Soar	—	—	—	—	—	—	—	—
Belvoir	—	—	—	—	—	—	—	—
Billesdon	44	1	33	54	—	18	3	—
Blaby	Not yet decided.	—	—	—	—	—	—	—
Castle Donington	—	12	6	—	—	6	—	—
Hallaton	—	—	—	—	—	—	—	—
Hinckley	18	—	13	—	—	13	16	—
Loughborough	—	—	—	—	—	—	—	—
Lutterworth	—	13	11	—	—	16	10	—
Market Bosworth	29	106	49	—	—	50	94	—
Market Harborough	—	—	—	—	—	—	16	—
Melton Mowbray	—	14	100	—	14	100	—	—
(a) TOTALS	91	188	302	114	14	293	182	7

* These houses have been provided to deal both with the present needs of overcrowding and normal increase of population.

(a) Not including the particulars for Barrow-on-Soar and Loughborough R.D.'s, as the returns for these two districts have not been received.

NEW HOUSES FOR NORMAL INCREASE OF POPULATION.

Table 3.

RURAL DISTRICT.	New Houses actually required on 31.12.33.	New houses approved by M. of H. but not completed by 31.12.33.		New houses contemplated to be built by R.D.C.	New houses completed during 1933.	
		Commenced.	Not Commenced.		Occupied on 31.12.33.	Not occupied on 31.12.33.
Ashby-de-la-Zouch	R.D. Council of opinion that private enterprise will meet future needs.	—	—	—	—	—
Barrow-on-Soar	—	—	—	—	—	—
Belvoir	Nil.	—	—	—	—	—
Billesdon	R.D. Council of opinion that private enterprise will meet needs.	—	—	—	—	—
Blaby	—	—	—	—	—	—
Castle Donington	Nil.	—	—	—	—	—
Hallaton	Nil—population declining.	—	—	—	—	—
Hinckley	Not known	12	—	Under consideration	36	—
Loughborough	—	—	—	—	—	—
Lutterworth	Nil.	—	—	—	—	—
Market Bosworth	Supply is being met by private enterprise.	—	—	—	—	—
Market Harborough	Nil.	—	—	—	—	—
Melton Mowbray	Nil.	—	—	—	—	—

INSPECTION AND SUPERVISION OF FOOD.

(a) Milk Supply.

Milk and Dairies (Consolidation) Act, 1915. Section 4.

During 1933 infection of milk by Tubercle Bacilli was reported in 7 instances, one from Leicester City Council, one from Nottingham City Council, two from Birmingham, and the remainder from Willesden, Warwickshire and London.

Following these reports 204 animals from 7 herds were examined by the County Council Veterinary Inspectors, and in the case of four of these herds it was found necessary to make re-inspections. Arising from these examinations 36 samples of milk were taken from suspected cows and despatched to Cambridge University for examination.

The following shows the results from the herds examined :—

Tuberculosis found on first inspection	....	1
" " " re-inspection	....	3
Herds from which the owners have disposed of a suspected cow between the date of the initial sample and the visit of the Veterinary Inspector :—		
(a) Sold for slaughter	....	—
(b) Slaughtered and found tuberculous	....	—
No trace of Tuberculosis	....	3

Section 8.

During the year there were no samples submitted to bacteriological examination.

Milk and Dairies Order, 1926.

Tuberculosis Order, 1925.

These Orders are administered by the Diseases of Animals Sub-Committee of the County Agricultural Committee. There are ten part-time Veterinary Inspectors employed by the Authority each of whom is responsible in his own district for the duties necessary under Section 4 of the Milk and Dairies (Consolidation) Act, 1915, the Milk and Dairies Order, 1926, and the Tuberculosis Order, 1925.

Under Section 5 of the Milk and Dairies (Consolidation) Act, 1915, and Part IV. of the Milk and Dairies Order, 1926, first inspections are carried out under the control of the Diseases of Animals Sub-Committee, but in the event of a cow being found to be suffering from any of the diseases specified in the Act and Order such subsequent inspections at the farm as may be necessary, *e.g.*, for prohibition of the sale of milk from diseased cows, are undertaken under the control of the Public Health and Housing Committee.

During the latter part of the year the Agricultural Committee had under consideration the question of the appointment of whole-time Veterinary Inspectors.

At a special meeting of the County Council on December 20th, 1933, it was decided to adopt the following recommendations of the Agricultural Committee :—

- (1) That a whole-time Chief Veterinary Inspector be appointed.
- (2) That upon any vacancy occurring in the staff of part-time Veterinary Inspectors such vacancy be filled by a whole-time Assistant Inspector and that the change from the part-time Inspectors to three whole-time Assistant Inspectors be made when a favourable opportunity occurs.
- (3) That two annual inspections be made of all cows in milk and cows in calf in the County including two inspections of "Grade A" herds.
- (4) That for the present the duties under the Diseases of Animals Acts continue to be carried out by the part-time Veterinary Inspectors under the direction of the Chief Veterinary Inspector.
- (5) That the scheme come into operation on 1st April, 1934.

(b) Graded Milk Production.

At the commencement of the year 1933 there were 30 producers of "Grade A" milk registered with the County Council.

During the year four additional licences were granted and three licences were discontinued.

Frequent inspections of "Grade A Farms" are carried out by Medical Officers of the Department. The condition of the premises, the cleanliness of the herd and of the methods of production are investigated and a report made as a result of each inspection.

Upon application being received for a licence to produce "Grade A" milk a visit to the farm is made by a member of the Senior Medical Staff who reports upon the suitability of the premises and is available to the intending producer for advice concerning any necessary alterations or additions and upon the methods to be employed in milking, sterilisation, bottling, cooling, etc. No licence to produce "Grade A" milk is granted until a series of samples of milk over a period of weeks have, upon examination, been found to conform to the necessary standard.

At the time of each inspection a sample of milk is collected for submission to bacteriological examination. In addition arrangements are in force for the collection of samples of "Grade A" milk as sold to the public.

During the year, 388 samples of "Grade A" milk were examined. Of these 45 were outside the standard allowed. In these cases the pro-

ducer is informed of the adverse result and asked for his observations on the matter. If necessary the farm is visited by a Medical Officer and in co-operation with the producer an investigation is made to discover the source of the trouble.

All inspections are carried out by Medical Officers with a view to assisting the producer in addition to ascertaining if the regulations are being observed. I should like again to express my appreciation of the courtesy with which the inspections and suggestions made are received by the producers. It is only by co-operation between this Department and the licensed producers that the mutual aim of an improved milk supply will be reached and it is in this spirit that the necessary inspections are carried out.

(c) Provision of Milk to Elementary School Children.

The scheme for the supply of milk to Elementary School Children comprises arrangements for the supply of liquid milk, where possible of "Grade A" standard in bottles of one-third of a pint, provided with a disc and straw. The price charged must not exceed one penny per bottle.

The following returns show the amount of milk supplied to the schools during the past five years :—

	Oct. 1929	Dec. 1929	Dec. 1930	Dec. 1931	Dec. 1932	Dec. 1933
No. of schools receiving milk	1	33	111	163	174	179
No. of children receiving milk	102	3,067	8,681	7,943	6,870	6,600
No. of bottles supplied weekly	510	15,335	43,405	39,718	34,310	33,250
No. of gallons of milk weekly	21	639	1,808	1,655	1,430	1,385

It will be seen that the scheme has been extended during the year to include a further five schools.

There has been some decrease in the number of children taking milk in schools which is doubtless due, largely to economic conditions existing in the County.

No milk is supplied free by the Authority but in the schools at Bitteswell, Ullesthorpe, and Claybrooke, free milk is available to the children through the funds of the Marc Smith Charity.

Samples of the milk supplied are collected frequently by a member of the staff of the Health Department and submitted to bacteriological examination in the County Laboratory. If the result of the examination of a sample is unsatisfactory the Agricultural Department is notified with a view to action being taken to remedy the fault. Continued unsatisfactory samples from a producer result in the supply from this source being discontinued.

During the year 366 samples of milk were collected and submitted to bacteriological examination in the County Laboratory. Of these 180 or

49 per cent. contained less than 30,000 organisms per c.c. ; 124 or 34 per cent. showed a count between 30,000 and 200,000 organisms per c.c., and only 62 or 17 per cent. had a count of over 200,000. Seventy-five per cent. of the milk examined was of "Grade A" standard bacteriologically. The frequent collection and examination of surprise samples plays a big part in the maintenance of a high standard of cleanliness and it is very satisfactory to find that the milk supplied shows such a marked degree of purity.

The scheme is now well established and successful and is re-acting to the benefit of the children in the schools and to the milk producing industry. Observations made from weighing and measuring the children partaking of the extra milk show that they are improved physically in comparison with those who do not receive the milk.

(d) Sale of Food and Drugs Act, etc.

The County Police are responsible for the administration of the above and kindred Acts. I am indebted to the Chief Constable for the County for the following information regarding the working of this Act during the year ending 31st December, 1933 :—

440 samples were submitted for analysis, *viz.*, 416 foods and 24 drugs. 22 samples were certified to be unsatisfactory, *i.e.*, 14 milk, 1 cream, 2 gin, 2 pork pie, 1 non-alcoholic wine, 1 ammoniated tincture of quinine, 1 sweet spirits of nitre.

Proceedings were taken in 12 cases (8 milks, 1 cream, 1 gin, 2 pork pies), convictions were obtained in 8 cases the other 4 were dismissed on payment of costs. The total fines and costs amounted to £31 . 14 . 0.

Three persons selling unsatisfactory milk and one unsatisfactory sweet spirits of nitre were cautioned by the Chief Constable.

Satisfactory explanations were given in other cases.

There were three "Appeal to Cow" samples and in one case the milk obtained in this way was similar to the unsatisfactory sample previously purchased.

LEICESTERSHIRE COUNTY SANATORIUM AND ISOLATION HOSPITAL, MARKFIELD.

Beds provided	.....	180
No. of cases in Hospital on 31st December, 1932		111
„ „ admitted during 1933		464
„ „ discharged during 1933		412
„ „ in Hospital on 31st December, 1933....		163

The pressure on the beds for Tuberculosis has been constant, although towards the latter part of the year the waiting list was reduced to reasonably low proportions.

At first the demand for accommodation for the infectious diseases was low but, later in the year, the number of patients rose rapidly and remained high.

The X-Ray and Laboratory Departments came into use in January, and the equipment for Artificial Sunlight Treatment was installed at the end of the summer.

A Farm Bailiff was appointed in June and the adjacent farm was stocked with a view to supplying milk to the Hospital; since 1st October all the requirements of the Hospital have been satisfied with a product of a very high standard of purity, while at the same time a profitable industry has been developed in the keeping of pigs, utilising the Hospital swill.

TUBERCULOSIS.

Beds provided	.....	126	(	52 men	52 women	22 children)
No. of cases on 31st December, 1932		111	(	48	„ 52	„ 11
„ „ admitted during 1933		303	(	123	„ 118	„ 62
„ „ discharged during 1933		292	(	120	„ 121	„ 51
„ „ on 31st December, 1933		122	(	51	„ 49	„ 22

During the year, the average number of beds occupied daily was 123.5. The average duration of treatment was 128.7 days (men 128, women 130, children 127). Excluding those patients staying less than six weeks, the averages become 139.5 (men 136, women 141, children 146).

The routine treatment and Sanatorium regime remain unchanged, but the preliminary period of rest has been increased in those cases considered recoverable.

Special treatments and investigations are dealt with under separate headings and are all performed by the Medical Staff.

Patients are encouraged to occupy themselves with fancy work of a light nature, but there is scope for other forms of therapeutic occupation under properly trained supervision.

Numerous concerts, whist drives and tournaments are held, indoor and outdoor games are provided and religious services are held each week.

Artificial Pneumothorax.

In the treatment of Pulmonary Tuberculosis rest is of primary importance. The aims of all methods of collapse therapy are to put to rest the site of disease for long periods without corresponding restriction of the other activities of the patient, and at the same time to aid the natural processes of healing and prevent extension of the disease.

Artificial Pneumothorax is one of these methods but is, owing to a number of factors, applicable in only a small proportion of the cases admitted to the Sanatorium.

During the year, induction of Artificial Pneumothorax was carried out on 17 patients. In 4 cases, treatment was discontinued owing to adhesions preventing satisfactory collapse; of the 13 cases treated successfully 9 improved sufficiently to be allowed to go home and are attending periodically for refills as out-patients.

239 refills were given and X-Ray screening is carried out at each refill, films being taken at intervals.

No provision has at present been made for the more permanent surgical methods of collapse therapy.

Aurotherapy.

The beneficial effects expected of treatment by gold salts depend not on any destructive effect directly on the germ, but upon a stimulation of the natural defences and formation of scar tissue.

The compound used in this series of cases has been Sanocrysin, gold-sodium-thiosulphate, and the treatment consists of a course of injections at weekly intervals into the blood stream, the dose increasing from 0.01 up to 0.5 of a gramme.

10 cases were selected for this treatment and the effects on sputum, weight and blood sedimentation rate are summarised below.

Case.	Class.	Sputum. Before	After	Effect on Weight.	Effect on Blood Sedimentation.	Remarks.
1	+2	Pos.	Neg.	Stationary	Improved 32-18	Quiescent.
2	+2	"	"	Gained 8 lbs.	" 27-14	—
3	+2	"	Pos.	" 1 lb.	" 13- 6	Right A.P.
4	+2	"	"	Lost 3½ lbs.	" 27-18	—
5	+2	"	Neg.	Stationary	" 52-35	A.P. with effusion.
6	+2	"	Pos.	Gained 3¾ lbs.	—	Discontinued owing to relapse
7	+3	"	"	" 5½ "	Improved 22-10	Course not yet completed.
8	+2	"	"	" 2½ "	Stationary.	Course not yet completed.
9	+3	"	Neg.	" 4½ "	Improved 51-28	Course not yet completed.
10	+1	"	"	" 7½ "	" 38- 2	Course not yet completed.

Blood Sedimentation.

This test is not diagnostic of Tuberculosis, but provides a very useful index of the extent and activity of the disease, and if the test is repeated at intervals it forms an accessory record of the progress and prognosis of the case. The test is carried out by taking a specimen of blood into a solution of citrate and setting up in a graduated tube of narrow bore ; the red blood cells settle and readings are taken of the percentage fall at intervals up to one hour ; the rapidity of sedimentation increases with the gravity of the disease.

During 1933, 369 estimations of the blood sedimentation rate were performed and the test is now being carried out as routine on all cases at frequent intervals.

Mantoux reaction.

This test comprises the injection of a very small quantity of Tuberculin actually into the skin, and is being used mainly in children to obtain confirmatory evidence of the diagnosis. 44 tests were made during the year.

Heliotherapy.

Treatment by artificial sunlight is reserved for patients suffering from non-pulmonary tuberculosis and is therefore utilised mainly in children with disease affecting the glands, abdomen and skin.

The apparatus consists of Carbon-Arc, Mercury-Vapour and Infra-Red lamps. Treatment is given thrice weekly.

X-Ray.

The apparatus allows of screening and the taking of photographs in both recumbent and upright positions and, as a routine, all X-Ray films of the lungs are taken at a distance of six feet to reduce distortion effects. All examinations are made by the Medical Superintendent and use is made of the X-Ray for control of artificial pneumothorax treatment, to aid in diagnosis of out-patients sent by the Tuberculosis Officers, to confirm the diagnosis of inpatients and to assess the value of special treatments, etc.

Screening.	In-patients	....	....	....	....	385
	Sent by Tuberculosis Officers				....	119
						<hr/> 504
Films.	In-patients	....	....	....	....	214
	Sent by Tuberculosis Officers				....	140
	Sent by Orthopædic Clinics	....			....	7
						<hr/> 361
	Total of Investigations				....	<hr/>865

Laboratory.

The work of the laboratory is carried out by the Medical Staff and consists mainly of the examination of Sputum for Tubercle Bacilli and of cultures for the appropriate organism in cases of Infectious Disease, but a number of investigations have also been made in other fluids and excreta.

The Sputum of all patients is examined once a month throughout their stay, but in those cases admitted as T.B. Negative, the sputum is examined weekly for six consecutive weeks, after which if no bacilli have been found it is examined monthly.

Sputum. Containing Tubercle Bacilli	....	....	694
Not containing ,,	..	..	579
			<hr/> 1,273
Diphtheria Cultures	....	....	227
Smears	....	....	5
Urine for Tubercle Bacilli	....	....	6
Pleural Fluid for Tubercle Bacilli	....	....	6
Cerebro Spinal Fluid	....	....	1
Complete blood count	....	....	2
			<hr/> 1,520

Types of case and result of treatment.

The results of treatment as required by the Ministry of Health are set out in Table A. at the end of this report. The addition of further information makes possible a more detailed analysis to demonstrate the outlook in various classes of the disease and the greater efficiency of treatment in the earlier stages in obtaining quiescence, improvement of general condition and reduction of infectiousness.

Pulmonary Tuberculosis in Adults.

Total of all classes 234 ; 33% became quiescent, 13% died, 56% gained weight. Total of T.B. Pos. cases 159 ; 19% lost their sputum or bacilli. 131 cases gained weight, the maximum gain being 30 lbs., and the average 8 lbs.

The subjacent table summarises the results in the different classes of pulmonary disease.

Classification.	Number of Cases.	Result.		Weight Gained.	Lost Sputum or lost Bacilli in Sputum.
		Quiescent.	Died.		
T.B. Neg.	75	67%	7%	67%	—
T.B. Pos. Group 1	12	67%	—	67%	67%
T.B. Pos. Group 2	74	24%	—	64%	28%
T.B. Pos. Group 3	73	—	36%	36%	3%

Pulmonary Tuberculosis in Children.

31 cases, all T.B. Negative, of whom 77.4% became quiescent and none died.

Non-Pulmonary Tuberculosis.

Abdominal ;—13 cases (1 adult, 12 children) ; all became quiescent. Peripheral Glands :—3 children ; 2 became quiescent. Other organs :—3 adults ; 1 became quiescent.

Observation Cases.

10 cases (4 adults, 6 children) of whom 8 were discharged as Non-tuberculous, and 2 (1 man, 1 child) were retained for treatment and are still in Hospital.

INFECTIOUS DISEASES.

Beds provided—54 (Scarlet Fever 22, Diphtheria 20, Isolation 12).

No. of cases admitted during 1933	....	....	161
„ „ discharged during 1933	....	....	120
„ „ in Hospital on 31st December, 1933			41

All cases are examined on arrival in the ambulance to verify as far as possible the diagnosis before admission to the appropriate ward.

Scarlet Fever.

No. of cases admitted	....	....	....	122
„ „ discharged	....	....	....	106*
„ „ in Hospital on 31st December, 1933				16
Average duration of treatment	....	....	....	31.5 days.

(*In one case the diagnosis was not confirmed).

Serum is given by the intramuscular route to cases admitted in the early stages of the disease or showing signs of toxæmia, 65 cases being treated by this means of whom only 4 suffered from complications, whereas 41 cases were treated without serum and of these 7 developed complications.

Complications present on admission.				Complications during treatment.			
Otorrhoea	....	....	3	Otorrhoea	....	....	2
Pneumonia	....	....	1	Heart Disease	....	....	1
Adenitis	....	....	14	Relapse	....	....	2
Sepsis, etc.	....	....	10	Adenitis	....	....	4
				Nasal Diphtheria	....	....	1
				Herpes	....	....	1
			—				—
			28				11
			—				—

Diphtheria.

No. of cases admitted	....	....	....	....	37
„ „ discharged	....	....	....	....	14
„ „ in Hospital on 31st December, 1933					23
Average duration of treatment	....	....	....	....	41.6 days.

Of the 14 cases discharged, 11 had faucial disease and 3 laryngeal : 2 deaths occurred, both on the day of admission in cases of laryngeal diphtheria.

Anti-toxin is given by the intramuscular or intravenous route according to the severity of the disease, the average dosage in the cases discharged during the year being 23,800 units.

Complications—Paralysis	....	....	....	....	1
Scarlet Fever	....	....	....	....	1
Herpes Zoster	....	....	....	....	1

Erysipelas.

2 cases were admitted and remained under treatment at the end of the year.

STAFF.

All members of the staff, male and female, resident in the Hospital obtain medical attendance by the Medical Superintendent under the N.H.I. Scheme, and in addition Probationer Nurses and Domestic Staff are examined and X-Rayed during their probationary period.

All members of the Staff are tested for immunity to Diphtheria and Scarlet Fever by the Schick and Dick tests and if necessary a course of injections is given and further tests made as to the efficacy of the immunization.

Schick Tests	101	Diphtheria Immunizations	20
Dick Tests	95	Scarlet Fever Immunizations	17

During the year the following ailments necessitating repeated medical attention were treated :—

Influenza	....	....	11	Tonsillitis	....	11
Diphtheria	....	....	1	Paroxysmal		
Cuts and Injuries			17	Tachycardia	....	1
Miscellaneous	....	....	15	Rheumatic Fever		1

(The case of Diphtheria was of a Probationer Nurse who was Schick negative, the disease being mild and responding well to treatment.)

H. SELBY,

Medical Superintendent.

Table A.
COUNTY SANATORIUM, MARKFIELD.
Return showing the immediate results of treatment of definitely tuberculous patients discharged during the year 1933.

Classification on admission to Institution.	Condition at time of discharge.	Duration of Residential Treatment in the Institution.												Grand Totals						
		Under 3 months.			3-6 months.			6-12 months.			More than 12 months.				Totals.					
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		M.	F.	Ch.			
PULMONARY TUBERCULOSIS.	Class T.B. minus.	6	3	3	14	24	18	2	1	3	—	—	—	—	—	—	22	28	24	74
	Not quiescent	4	9	5	4	1	2	2	—	—	—	—	—	—	—	—	10	10	7	27
	Died in Institution	1	3	—	—	—	—	1	—	—	—	—	—	—	—	—	2	3	—	5
	Class T.B. plus. Group I.	—	—	—	3	2	—	2	1	—	—	—	—	—	—	—	5	3	—	8
	Died in Institution	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	4	—	—	4
PULMONARY TUBERCULOSIS.	Class T.B. plus. Group II.	3	1	—	7	5	—	1	1	—	—	—	—	—	—	—	11	7	—	18
	Not quiescent	6	2	—	18	18	—	5	7	—	—	—	—	—	—	—	29	27	—	56
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. Plus. Group III.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Died in Institution	3	4	—	11	15	—	8	6	—	—	—	—	—	—	—	22	25	—	47
TOTALS (pulmonary)	35	26	8	61	71	20	21	19	3	3	—	1	1	—	—	117	117	31	265	
NON-PULMONARY TUBERCULOSIS.	Abdominal.	—	—	1	—	—	—	—	—	7	—	—	—	—	—	—	—	—	—	13
	Not quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Other Organs.	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	1
	Died in Institution	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	2
NON-PULMONARY TUBERCULOSIS.	Peripheral glands.	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	2
	Not quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
	Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
TOTALS (non-pulmonary)	2	—	1	—	—	—	—	1	8	—	—	—	—	—	—	2	2	15	19	

NOTE: The following Observation Cases (Non-Tuberculous) were also discharged during the year, M.-1. F.-2. Ch.-5

TUBERCULOSIS.

The following is the report of the Chief Tuberculosis Medical Officer :

Prevalence of Tuberculosis.

The number of notifications of Pulmonary Tuberculosis has decreased by 43, and there is a decrease in the number of deaths by 11. The figures for 1933 are :—Notifications 275, Deaths 214, Death Rate 0.69. The average numbers of the last five years are :—Notifications 333, Deaths 212, Death Rate 0.71.

There were 82 notifications of Non-Pulmonary Tuberculosis as against 83 in 1932. The number of deaths was 41 compared with 54 and the Death Rate 0.13 as against 0.17 in 1932.

The total number of notifications for 1933 is therefore 357 as against 401 last year, and the deaths 255 as against 279.

DETAILS OF THE SCHEME OF TREATMENT.

A. Hospital and Sanatorium Accommodation.

Markfield Sanatorium has been available for treatment during the year. The number of beds for Tuberculous cases is 126 (Male block 34, Female block 34, Children's block 22, Advanced block 36 beds), and all these beds have been kept practically full during the past twelve months. The waiting list which, at first, was heavy has been reduced to its proper proportions and there is comparatively little delay in the admission of cases to Sanatorium at the present time. A separate account of the work at Markfield Sanatorium is included elsewhere in this report.

There are six beds in the Winter, and eight beds in the Summer at the Melton Isolation Hospital for advanced cases, and these have been kept fully occupied.

Public Assistance Infirmaries.

There are a certain number of shelters for treatment of old and chronic cases of Pulmonary Tuberculosis provided at these Institutions, and full use is made of them when suitable cases occur.

Convalescent Home.

Since 31st December, 1932 the beds at the Cooper Memorial Home, Woodhouse Eaves have not been utilised as the children previously treated there have been sent to the County Sanatorium instead.

B. Outpatient Dispensary Work.

For details see Table 1.

The number of attendances at the Dispensaries has again been increased, being 5,130 as against 4,960 in 1932, an addition of 170, while the number of contacts examined has increased by 106.

The X-Ray photographs are no longer taken at the Leicester Royal Infirmary, but at Markfield Sanatorium. 163 photographs have been taken, and it is hoped to make still more use of the X-Ray Plant during the coming year.

The number of specimens of sputum examined was 1,295.

C. Domiciliary Work.

(i) *Shelters*.— Seventy shelters are available for loan to patients, and of this number two are in use at the Melton Isolation Hospital. The routine inspections, as heretofore, have been carried out by the County Nursing Association. Some of these shelters are now in dilapidated condition and some new ones will have to be obtained.

(ii) *Nursing of Advanced Cases*.— This part of the scheme has been carried out by the County Nursing Association, and 5,602 visits have been paid by the District Nurses.

(iii) *Extra Nourishment*.— Approximately £580 has been expended on 90 patients as against £568 on 86 patients in 1932. The grant was originally 5/- worth of milk and eggs per week. Some slight alteration has been made in the allowance, one pint of milk per day and one dozen eggs per week being now allowed to each recipient. This will result in a saving in each individual case as during the Summer months the price of both milk and eggs is considerably reduced. The scheme will allow more patients to receive this benefit if their financial position demands it. The financial scale laid down is a low one and has been rigidly adhered to.

(iv) *Additional Help*.— The cost of splints, crutches, surgical boots etc., has entailed an expenditure of £45 on 15 patients as against £104 for 35 patients last year.

The number of cases receiving Dental Benefit has been very small for the same reason as previously obtained, namely that Dental benefit can be obtained from Approved Societies and from other sources.

Cod Liver Oil and Malt has been given to numbers of suitable cases at all the Out-Patient Dispensaries, and there can be no doubt that this is a very valuable adjunct to the nutritional side of the treatment.

Paper handkerchiefs, sputum flasks and inhalers have also been distributed.

(v) *Domiciliary Visits*.— The Tuberculosis Medical Officers have paid 1,769 (Dr. Coward 975, Dr. Lane 794) visits to patients' homes. The Health Visitors paid 5,972 and the District Nurses 5,602 visits. These figures show a considerable increase all round.

D. Surgical Tuberculosis.

The following Institutions receive Surgical Tuberculosis cases (bone and joint disease) from the County :—

The City General Hospital (Orthopædic Wards), Evington.
 The Warwickshire Orthopædic Hospital, Coleshill.
 Harlow Wood Orthopædic Hospital, Mansfield.

The number of patients admitted to these Institutions during the year, and the numbers remaining under treatment and other information will be found in Table 2.

Other Surgical Tuberculosis cases including Tubercular Glands, Abdomen, Kidney, etc., are treated at Markfield Sanatorium, and the figures concerning these will be found in the Sanatorium report.

The treatment in outside Institutions is perforce very costly owing to the comparatively high charges made and the prolonged treatment required. Nevertheless it is hoped that the peak will shortly be reached, and that in process of time fewer cases will present themselves suffering from bone and joint disease.

E. After-Care Work.

This work is done largely by the Tuberculosis Medical Officers, Health Visitors, District Nursing Associations, through their nurses, the Public Assistance Committees, and Private Agency, and is, I believe, satisfactorily performed so far as the present financial conditions will allow.

As in the past many new houses have been obtained, employment of a suitable nature procured, clothing distributed, and help in many other directions given, in an endeavour to consolidate the treatment given in an Institution, and to help not only the patients but also his relatives at the same time.

F. Public Health Act, 1925, (Section 62).

No action has been taken under this Section, which deals with the compulsory removal to hospital of advanced cases of Tuberculosis.

In reviewing the work of the year, we can welcome a decrease in the numbers of notifications and of deaths from both Pulmonary and Surgical Tuberculosis.

The work at the Dispensaries has increased in every direction, while more contacts have been examined and more visits made.

It will obviously take time before the effect of the new County Sanatorium can be felt, for all improvement in the health of the people must necessarily be slow and gradual when so many factors have to be considered. The County Tuberculosis Scheme is adequate and comprehensive so far as circumstances will permit. As I have stressed elsewhere the greatest difficulty to be combatted, and it is a factor that is vital to the success of the scheme, is the number of cases which are seen for the first time in so advanced a state of disease that no cure is possible and too often death is inevitable,

I cannot help thinking that, until the family vigilance and care for its younger members is greatly increased, systematic examination of those working in factories is the only real solution of the problem. It is incredible, with the dire results of Tuberculosis so manifest and so well known to everyone that presumably thinking people can adopt an ostrich-like attitude and wilfully neglect to take advantage of an organisation designed to diagnose their complaint and treat it, willingly and free of cost.

N. A. COWARD,
Chief Tuberculosis Officer.

I have analysed 1,109 deaths from Pulmonary Tuberculosis occurring in the last five years, *i.e.*, 1929 to 1933 inclusive.

There is nothing remarkable to record as to the localisation of these cases, except the fact that the distribution is so extremely even. In point of fact it is really extraordinary that there is no place that can earn an unenviable reputation as a death spot for this complaint. It is needless to say that most deaths have occurred in the industrial areas, and that in the rural districts cases are sporadic and comparatively few in number. Where there has been any slight difference in one year, it has been compensated for in the next.

In considering the mortality rate it is important to remember that Leicestershire is a highly industrialised county, and that a large number of villages contain hosiery and boot factories and employ a considerable portion of the working population. In addition, in villages where factories do not obtain, crowds of men, women, youths and girls daily come into Leicester or Loughborough or industrial centres nearby to carry on their work, and morning and evening see numerous buses coming and going, and thousands of cyclists on their inward or outward journeys.

It is obvious that any advantages accruing from living in the country are largely lost if most of the day is spent in factories, while the journeys in and out, must be taken into consideration, adding as they do both increase of employed hours and also considerable fatigue, especially if cycling be the method of transport.

Another noteworthy fact is that only a very few deaths have taken place among contacts. The vast majority of those who have died have been the only one in the house, and the rest of the family have escaped. This is partly due to the supervision of the contacts, and partly, I think, to the fact that the relatives themselves keep a more watchful eye on the health of the remaining members of the family, and take them to the doctor for examination much earlier than they did in the past.

I have drawn up a table shewing the numbers of deaths from Pulmonary Tuberculosis in the five years, 1929—1933 according to their ages. It will be seen that neither the very young nor the very old escape, but that by far the largest numbers are obtained between the ages of 20 and 50 ; and of these again the greatest number between 20 and 29 years of age.

It is well known that the mortality from Pulmonary Tuberculosis is greatest in adolescence, and particularly among young adolescent women. The cause is undoubtedly, as I have pointed out before, due to the fact that the broncho pneumonic type of the disease has superseded both the acute miliary condition, known familiarly as galloping consumption, and also the more common fibro caseous variety. The insidious onset, the rapid invasion of the lung, the difficulty in obtaining healing of so large an area, the long and tedious treatment, and the lack of resisting power, in the patient make this type of the disease most serious and destructive.

One can say of all types of Pulmonary Tuberculosis, and of this broncho pneumonic type in particular, that early diagnosis and early treatment give, in the majority of cases, the only chance of real recovery. The problem has always been how to get the cases early enough, and it remains the most important factor in the whole Tuberculosis scheme to-day. In fact now that this rapidly spreading type is becoming predominant it is even more vital at the present than ever before.

A proportion of cases start with hæmoptysis, pleurisy, or a spontaneous pneumothorax, and many of these are lucky in that attention is drawn to the underlying condition and treatment can be applied reasonably early. But the majority start most insidiously, with languor and debility, slight cough, and some loss of weight. Well would it be if Pulmonary Tuberculosis were attended with some pain, for generally speaking it is a disease in which pain does not predominate. Then we should see patients coming for examination much more quickly, and in addition a greater readiness to undergo more thorough and prolonged treatment. One cannot urge too thoroughly on the General Public, and on fathers and mothers in particular, the absolute necessity for early examination of all members of the family who show signs of debility or ill health, and especially of those members of adolescent age, who are overgrown and weakly to start with and are, though often manifestly quite unfitted, engaged in factory work.

N. A. COWARD,
Chief Tuberculosis Officer.

25th April, 1934.

YEAR.	AGE PERIOD 1-15			AGE PERIOD 15-19			AGE PERIOD 20-29			AGE PERIOD 30-39			AGE PERIOD 40-49			AGE PERIOD 50-59			AGE PERIOD 60-69			AGE PERIOD 70-79			AGE PERIOD 80			TOTALS.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	Total Males.	Total Females	Grand Total.			
1929	8	5	13	16	18	34	30	44	74	33	27	60	30	16	46	14	8	22	8	4	12	3	3	6	1	—	1	143	125	268
1930	5	7	12	6	19	25	18	44	62	21	21	42	19	11	30	14	8	22	7	1	8	1	—	1	—	—	90	112	202	
1931	5	6	11	10	8	18	31	27	58	14	30	44	23	15	38	19	10	29	7	6	13	1	1	2	—	—	109	102	211	
1932	1	9	10	5	4	9	28	55	83	21	23	44	22	13	35	13	7	20	12	7	19	2	1	3	—	—	103	120	223	
1933	1	5	6	8	13	21	33	38	71	27	17	44	16	13	29	14	8	22	6	3	9	—	2	2	1	—	106	99	205	
	20	32	52	45	62	107	140	208	348	116	118	234	110	68	178	74	41	115	40	21	61	7	7	14	2	—	551	558	1109	

M.—Males.

F.—Females.

T.—Total.

APPENDIX.

Summary of Institutions provided by the County Council.

(1). **Poor Law Institutions :**

Name of Institution.	No. of beds.	Description of Nursing Staff.
ASHBY-DE-LA-ZOUCH	60	Matron, 1 Head Nurse, 6 Assistant Nurses.
BLABY	24	1 Head Nurse, 2 Assistant Nurses.
HINCKLEY	40	Matron, 1 Trained Nurse, 4 Assistant Nurses.
LOUGHBOROUGH	100	1 Superintendent Nurse, 10 Assistant Nurses.
LUTTERWORTH	8	Matron, 2 Assistant Nurses.
MARKET BOSWORTH	24	1 Head Nurse, 1 Assistant Nurse.
MARKET HARBOROUGH	50	1 Head Nurse, 7 Assistant Nurses.
MELTON MOWBRAY	48	1 Head Nurse, 4 Assistant Nurses.
MOUNTSORREL.....	40	1 Head Nurse, 2 Assistant Nurses.

(2). **Tuberculosis Institutions.**

Name of Institution.	No. of beds.	Description of Nursing Staff.
MARKFIELD SANATORIUM	126	Matron, 9 Sisters and 9 Staff Nurses, 19 Probationer Nurses.

(3). Infectious Diseases Hospitals (other than Small-pox).

Name of Institution.	No. of beds.	Description of Nursing Staff.
MARKFIELD HOSPITAL	54	Allocated as required.
BLABY HOSPITAL	17	Matron, 2 Staff Nurses, 1 Assistant Nurse, 2 Probationer Nurses.
HINCKLEY HOSPITAL	23	Matron, 3 Nurses, 2 Assistant Nurses, 1 Probationer Nurse.
MELTON HOSPITAL	23	Matron, 2 Nurses, 2 Probationer Nurses.

(4). Small-pox Hospitals.

Name of Institution.	No. of beds.	Description of Nursing Staff.
SNARESTONE HOSPITAL	23	*Matron, 1 Staff Nurse.
SYSTON HOSPITAL	15	*1 Staff Sister.

* Additional Staff engaged as required.

Diagnosis.	PULMONARY.				NON-PULMONARY.				TOTAL.			
	Adults		Children		Adults		Children		Adults.		Children	
	M	F	M	F	M	F	M	F	M	F	M	F
A.—New Cases examined during the year (excluding contacts) :—												
(a) Definitely tuberculous	113	122	15	5	15	8	20	16	128	130	35	21
(b) Diagnosis not completed	19	16	6	6	...	...	...	1	19	16	6	7
(c) Non-tuberculous	133	121	52	38	1	5	5	4	134	126	57	42
B.—Contacts examined during the year :—												
(a) Definitely tuberculous	11	17	12	9	...	...	4	2	11	17	16	11
(b) Diagnosis not completed	2	3	3	...	...	...	...	...	2	3	3	...
(c) Non-tuberculous	40	78	137	111	...	...	1	...	40	78	138	111
C.—Cases written off the Dispensary Register as												
(a) Recovered	38	41	27	12	10	6	13	5	48	47	40	17
(b) Non-tuberculous	189	206	192	154	1	5	6	4	190	211	198	158
D.—Number of Persons on Dispensary Register on December 31st :—												
(a) Definitely tuberculous	571	603	121	101	71	59	116	68	642	662	237	169
(b) Diagnosis not completed	21	19	9	6	...	...	...	1	21	19	9	7

1. Number of cases on Dispensary Register on January 1st, 1933	1768	2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years	34
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of"	85	4. Cases written off during the year as Dead (all causes)	193
5. Number of attendances at the Dispensary (including Contacts)	5130	6. Number of Insured Persons under Domestic Treatment on the 31st December	175
7. Number of consultations with medical practitioners :— (a) Personal	146	8. Number of visits by Tuberculosis Officers to homes (including personal consultations)	1769
(b) Other	870	10. Number of :— (a) Specimens of sputum, etc., examined (b) X-ray examinations made in connection with Dispensary work	1295 163
9. Number of visits by Health Visitors to homes for Dispensary purposes	5972 + 5062 Nursing visits by C.N.A.	12. Number of "T.B. plus" cases on Dispensary Register on December 31st	471

† Remaining undiagnosed on 31/12/33.

TABLE I. - STATISTICAL DATA ON THE ECONOMY

Year	GDP (1955 prices)	GDP per capita	Sectoral composition of GDP	
			Industry	Services
1955	100	100	35	65
1956	105	105	36	64
1957	110	110	37	63
1958	115	115	38	62
1959	120	120	39	61
1960	125	125	40	60
1961	130	130	41	59
1962	135	135	42	58
1963	140	140	43	57
1964	145	145	44	56
1965	150	150	45	55
1966	155	155	46	54
1967	160	160	47	53
1968	165	165	48	52
1969	170	170	49	51
1970	175	175	50	50
1971	180	180	51	49
1972	185	185	52	48
1973	190	190	53	47
1974	195	195	54	46
1975	200	200	55	45
1976	205	205	56	44
1977	210	210	57	43
1978	215	215	58	42
1979	220	220	59	41
1980	225	225	60	40
1981	230	230	61	39
1982	235	235	62	38
1983	240	240	63	37
1984	245	245	64	36
1985	250	250	65	35
1986	255	255	66	34
1987	260	260	67	33
1988	265	265	68	32
1989	270	270	69	31
1990	275	275	70	30
1991	280	280	71	29
1992	285	285	72	28
1993	290	290	73	27
1994	295	295	74	26
1995	300	300	75	25
1996	305	305	76	24
1997	310	310	77	23
1998	315	315	78	22
1999	320	320	79	21
2000	325	325	80	20
2001	330	330	81	19
2002	335	335	82	18
2003	340	340	83	17
2004	345	345	84	16
2005	350	350	85	15
2006	355	355	86	14
2007	360	360	87	13
2008	365	365	88	12
2009	370	370	89	11
2010	375	375	90	10
2011	380	380	91	9
2012	385	385	92	8
2013	390	390	93	7
2014	395	395	94	6
2015	400	400	95	5
2016	405	405	96	4
2017	410	410	97	3
2018	415	415	98	2
2019	420	420	99	1
2020	425	425	100	0

Source: Bureau of Economic Analysis, Department of Commerce, Washington, D.C. 20540. GDP is in constant 1955 prices. GDP per capita is calculated by dividing GDP by the population in millions. The population data are from the U.S. Census Bureau, Washington, D.C. 20540. The industry and services data are from the U.S. Department of Commerce, Bureau of Economic Analysis, Washington, D.C. 20540. The data are preliminary for 2019 and 2020.

T.B. 3.—Return showing the immediate results of treatment of patients discharged from Residential Institutions during the year 1933.

Classification on admission to Institution.	Condition at time of discharge.	Duration of Residential Treatment in the Institution.												TOTAL	
		Under 3 months			3—6 months			6—12 months			More than 12 months				
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		
PULMONARY TUBERCULOSIS.	Class T.B. minus.	Quiescent	4	7	3	15	24	13	3	—	8	—	—	—	77
		Not quiescent	5	10	5	5	1	2	1	—	—	—	—	—	29
		Died in Institution	1	3	—	—	—	—	1	—	—	—	—	—	5
	Class T.B. plus Group 1.	Quiescent	—	—	—	3	2	—	2	1	—	—	—	—	8
		Not quiescent	3	—	—	2	—	—	—	—	—	—	—	—	5
		Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. plus Group 2.	Quiescent	3	1	—	8	5	—	—	1	—	—	—	—	18
		Not quiescent	10	5	—	20	15	—	6	7	—	—	—	—	63
		Died in Institution	—	—	—	—	—	—	—	1	—	—	—	—	1
	Class T.B. plus Group 3.	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—
		Not quiescent	3	5	—	12	16	—	8	7	—	—	—	—	51
		Died in Institution	12	5	—	3	8	—	—	2	—	—	1	—	31

288

In addition 13 cases were admitted for observation purposes, of whom 8 were discharged during the year as not Tubercular.

Non-Pulmonary Tuberculosis.

Bones and Joints :—	Quiescent	....	....	....	....	....	....	....	....	....	....	....	....	....	13
	Not Quiescent	....	....	....	....	....	....	....	....	....	....	....	....	....	14
	Died	....	....	....	....	....	....	....	....	....	....	....	....	....	3
Abdominal :—	Quiescent	....	....	....	....	....	....	....	....	....	....	....	....	....	13
	Not Quiescent	....	....	....	....	....	....	....	....	....	....	....	....	....	—
	Died	....	....	....	....	....	....	....	....	....	....	....	....	....	—
Other Organs :—	Quiescent	....	....	....	....	....	....	....	....	....	....	....	....	....	1
	Not Quiescent	....	....	....	....	....	....	....	....	....	....	....	....	....	3
Peripheral Glands :—	Quiescent	....	....	....	....	....	....	....	....	....	....	....	....	....	2
	Not Quiescent	....	....	....	....	....	....	....	....	....	....	....	....	....	1
															50

Note.—Cases transferred to other Institutions not counted as discharges.

T.B. 4. TUBERCULOSIS (Pulmonary and Other).

Year	Number of Notifications.				Number of Deaths.			Death Rate.		
		Urban	Rural	Whole County	Urban	Rural	Whole County	Urban	Rural	Whole County
1928	Lungs	167	183	350	78	125	203	0.65	0.73	0.70
	Other	57	60	117	26	28	54	0.22	0.16	0.19
1929	Lungs	146	216	362	101	138	239	0.83	0.79	0.81
	Other	40	55	95	17	38	55	0.14	0.22	0.19
1930	Lungs	136	172	308	81	102	183	0.67	0.59	0.62
	Other	39	44	83	14	25	39	0.12	0.14	0.13
1931	Lungs	135	190	325	75	135	210	0.62	0.74	0.69
	Other	33	66	99	16	30	46	0.13	0.16	0.15
1932	Lungs	133	185	318	93	132	225	0.76	0.71	0.73
	Other	41	42	83	26	28	54	0.21	0.16	0.17
Average for above 5 years.	Lungs	143	189	333	86	126	212	0.71	0.71	0.71
	Other	42	53	95	20	30	50	0.16	0.17	0.17
1933	Lungs	128	147	275	86	128	214	0.70	0.69	0.69
	Other	31	51	82	15	26	41	0.12	0.14	0.13

T.B. 5. TUBERCULOSIS :—Notifications and Deaths.
Shewing Age Periods.

AGE PERIODS.	NEW CASES.						DEATHS.*			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary			
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
0 to 1	....	....	3	....	....	....	1	1	....	....
1 to 5	....¹	....	8	6 ¹	....	....	3	5	....	....
5 to 15	13 ³	12 ²	17 ²	12 ³	1	3	4	4	....	....
15 to 25	44 ⁹	51 ¹⁷	8 ²	5	27	39	3	3	....	....
25 to 45	49 ²⁴	58 ¹⁷	8 ¹	11 ³	50	45	5	6	....	....
45 to 65	30 ³	11 ³	2	2	31	13	3	1	....	....
65 and upwards	3 ¹	4	....	....	1	4	....	2	....	....
Total	139³¹	136³⁹	46⁵	36⁷	110	104	19	22		

NOTE.—The figures in small type show additional cases which came to the notice of the County M.O.H. other than by formal notification.

* 15 of the deaths were of non-notified diseases.

District.	Estimated Population.	NOTIFICATION OF TUBERCULOSIS.				DEATHS FROM TUBERCULOSIS.			
		Pulmonary.	Attack Rate.	Non-Pulmonary.	Attack Rate.	Pulmonary.	Death Rate.	Non-Pulmonary.	Death Rate.
Ashby-de-la-Zouch	5,146	2	.39	—	—	3	.58	—	—
Ashby Woulds	3,267	2	.61	—	—	1	.31	—	—
Coalville	21,920	30	1.37	4	.18	17	.78	3	.14
Hinckley	16,620	24	1.44	4	.24	17	1.02	4	.24
Loughborough	27,300	30	1.10	8	.29	25	.91	2	.07
Market Harborough	9,386	6	.64	—	—	7	.75	3	.32
Melton Mowbray	10,420	10	.96	5	.48	3	.29	1	.09
Oadby	4,858	1	.21	—	—	1	.21	1	.21
Quorn	2,560	1	.39	—	—	—	—	—	—
Shepshed	5,763	7	1.21	3	.52	3	.52	—	—
Thurmaston	3,840	5	1.30	2	.52	1	.26	—	—
Wigston Magna	11,320	14	1.24	3	.27	8	.71	1	.09
TOTALS	122,400	132	1.06	29	.23	86	.70	15	.12
Ashby-de-la-Zouch	17,720	15	.85	7	.40	9	.51	2	.11
Barrow-on-Soar	31,470	26	.83	8	.25	31	.99	6	.19
Belvoir	2,928	2	.68	—	—	2	.68	—	—
Billesdon	11,560	6	.52	1	.09	3	.26	2	.17
Blaby	35,070	32	.91	8	.23	32	.91	4	.11
Castle Donington	6,558	4	.61	7	1.07	3	.46	—	—
Hallaton	1,562	1	.64	—	—	—	—	—	—
Hinckley	18,050	14	.78	8	.44	15	.83	4	.22
Loughborough	4,914	7	1.42	—	—	4	.81	—	—
Lutterworth	10,870	4	.37	1	.09	7	.64	—	—
Market Bosworth	24,020	22	.91	8	.33	15	.62	3	.12
Market Harborough	7,328	5	.68	1	.14	3	.41	—	—
Melton Mowbray	14,650	5	.34	4	.27	4	.27	5	.34
TOTALS	186,700	143	.76	53	.28	128	.69	26	.14

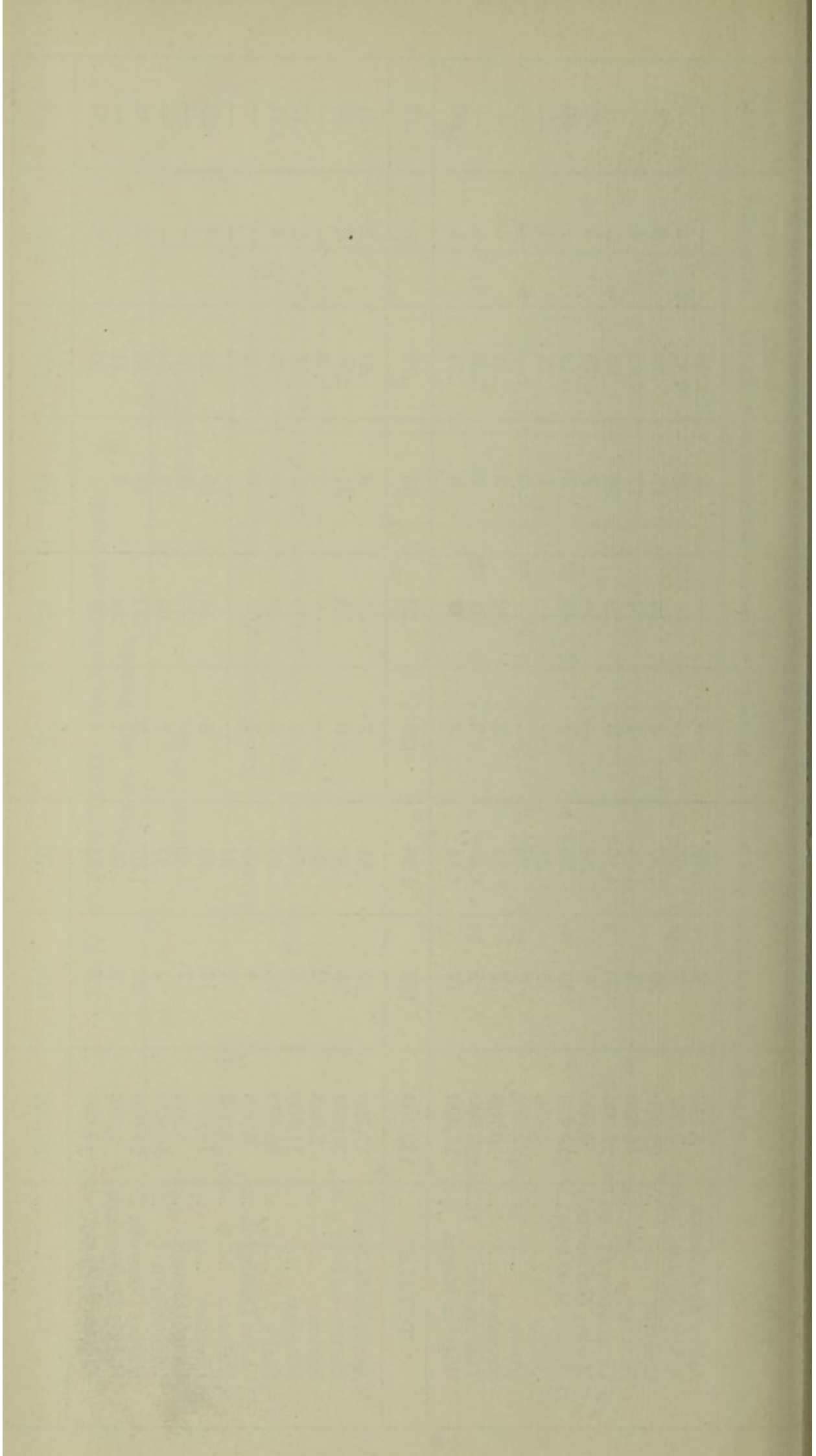


TABLE 1.—VITAL STATISTICS.

	LEICESTERSHIRE COUNTY, 1933						ENGLAND AND WALES.		
	Urban		Rural		Whole County		—		
	122,400		186,700		309,100		Rates		
Population	No.	Rates	No.	Rates	No.	Rates			
Live Births	1689	13.8	2735	14.7	4424	14.31	14.4		
Deaths (all causes and all ages)	1435	11.72	2069	11.08	3504	11.33	12.3		
„ (under one year).....	107	*63	134	*49	241	*54	*64		
„ (Zymotic)	20	0.16	30	0.11	50	0.16	....	
Deaths from :—									
Small Pox .....	....	....	....	....	....	....	0.00		
Measles	3	0.02	7	0.04	10	0.03	0.05		
Whooping Cough	4	0.03	9	0.05	13	0.04	0.05		
Diphtheria	3	0.02	7	0.04	10	0.03	0.06		
Scarlet Fever	1	0.01	1	0.01	2	0.01	0.02		
**Diarrhoea (under 2 yrs.)	9	*5.33	6	*2.19	15	*3.39	*7.1		
							Percentages of Total Deaths.		
The seven chief causes of death were :—							Urban	Rural	Wh'le C'n'ty
Heart Disease	288	2.35	445	2.38	733	2.37	20.1	21.5	20.9
Cancer	188	1.54	261	1.40	449	1.45	13.1	12.6	12.8
Cerebral Hæmorrhage	106	0.82	132	0.71	238	0.77	7.4	6.4	6.8
Phthisis	86	0.70	128	0.69	214	0.69	6.0	6.2	6.1
Senility	94	0.77	101	0.54	195	0.63	6.6	4.9	5.6
Influenza	55	0.45	122	0.65	177	0.57	3.8	5.9	5.1
Pneumonia	48	0.39	101	0.54	149	0.48	3.3	4.9	4.3

NOTES.— * The Rates are calculated per thousand of the population except where marked (*) which are per thousand registered births.

** The Diarrhoea rates per thousand of the population are :— Urban 0.07; Rural 0.03; Whole County 0.05.

TABLE 3.—NOTIFIABLE DISEASES.

DISEASE.	Total cases notified.	Cases admitted to Hospital.	Total Deaths.
<i>Notifications returned by the Registrar General :—</i>			
Small-pox	—	—	—
Diphtheria	125	123	10
Scarlet Fever	480	368	2
Enteric Fever	8	9	—
Pneumonia	350	—	149
Puerperal Fever	10	8	7
Puerperal Pyrexia	20	12	—
Erysipelas	99	15	—
<i>Other Diseases generally notifiable :—</i>			
Ophthalmia Neonatorum	15	6	—
Tuberculosis—Lungs	275	—	214
„ other forms	82	—	41
Encephalitis Lethargica	2	1	3
Poliomyelitis	3	1	—
Polioencephalitis	—	—	1
Cerebro Spinal Fever	17	21	8
Dysentery	1	—	—
<i>Diseases notified locally :—</i>			
Chicken-pox	96	—	—
Measles	—	1	10
TOTALS	1,583	565	445

Figures supplied by the Registrar General are for the 52 weeks ending 31st December, 1933.

TABLE 3 - NOTIFIABLE DISEASES

Year	Number of Cases	Rate per 100,000	Notes
1940	121	121	
1941	100	100	
1942	95	95	
1943	85	85	
1944	75	75	
1945	65	65	
1946	55	55	
1947	45	45	
1948	35	35	
1949	25	25	
1950	15	15	
1951	10	10	
1952	5	5	
1953	3	3	
1954	2	2	
1955	1	1	
1956	1	1	
1957	1	1	
1958	1	1	
1959	1	1	
1960	1	1	
1961	1	1	
1962	1	1	
1963	1	1	
1964	1	1	
1965	1	1	
1966	1	1	
1967	1	1	
1968	1	1	
1969	1	1	
1970	1	1	
1971	1	1	
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2014	1	1	
2015	1	1	
2016	1	1	
2017	1	1	
2018	1	1	
2019	1	1	
2020	1	1	
2021	1	1	
2022	1	1	
2023	1	1	
2024	1	1	
2025	1	1	
2026	1	1	
2027	1	1	
2028	1	1	
2029	1	1	
2030	1	1	

Source: Bureau of Health Statistics, Department of Health, Education and Welfare, Washington, D.C.

TABLE 4.—CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY OF LEICESTER, 1933.

CAUSES OF DEATH.	AGGREGATE OF URBAN DISTRICTS.										AGGREGATE OF RURAL DISTRICTS.											
	Sex.		All Ages.		0-14.		15-24.		25-64.		65-75.		All Ages.		0-14.		15-24.		25-64.		65-75.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ALL CAUSES	726	56	14	30	38	82	138	165	163	103	83	15	23	10	41	55	67	64	164	218	277	312
1. Typhoid and paratyphoid fevers	709	51	5	11	13	25	40	38	60	109	203	888	51	18	18	24	42	37	69	84	129	203
2. Measles	M 2	F 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3. Scarlet Fever	M 1	F 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4. Whooping Cough	M 1	F 3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5. Diphtheria	M 2	F 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6. Influenza	M 29	F 28	2	1	3	5	5	5	3	60	8	2	1	1	2	3	5	5	11	8	11	20
7. Encephalitis lethargica	M 3	F 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8. Cerebro-spinal Fever	M 43	F 43	1	10	9	7	12	3	1	67	1	1	1	1	1	1	1	1	1	1	1	1
9. Tuberculosis of respiratory system	M 10	F 5	1	1	3	2	1	1	1	17	3	2	1	1	3	2	1	1	1	1	1	1
10. Other Tuberculous diseases	M 5	F 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11. Syphilis	M 6	F 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12. General paralysis of the insane, other diseases	M 87	F 101	4	16	29	22	16	124	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13. Cancer, malignant disease	M 7	F 13	1	2	1	3	5	4	10	19	1	1	1	1	1	1	1	1	1	1	1	1
14. Diabetes	M 43	F 65	1	1	7	21	13	68	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15. Cerebral Hemorrhage, etc.	M 150	F 138	1	2	14	29	61	42	227	1	1	1	1	1	1	1	1	1	1	1	1	1
16. Heart Disease	M 2	F 2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17. Aneurysm	M 27	F 41	1	3	4	11	22	39	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18. Other Circulatory diseases	M 29	F 35	1	1	3	5	14	31	3	1	1	1	1	1	1	1	1	1	1	1	1	1
19. Bronchitis	M 21	F 27	1	2	1	4	3	60	8	6	8	1	1	1	1	1	1	1	1	1	1	1
20. Pneumonia (all forms)	M 6	F 5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21. Other Respiratory diseases	M 6	F 5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22. Peptic Ulcer	M 9	F 2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23. Diarrhoea, etc.	M 3	F 3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24. Appendicitis	M 4	F 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25. Cirrhosis of liver	M 1	F 3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26. Other diseases of liver, etc.	M 16	F 10	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27. Other digestive diseases	M 19	F 10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28. Acute & Chronic Nephritis	M 4	F 6	2	2	2	2	2	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1
29. Puerperal sepsis	M 29	F 34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30. Other Puerperal causes	M 37	F 57	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31. Congenital debility, premature birth, malformations, &c.	M 21	F 38	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32. Senility	M 11	F 11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33. Suicide	M 65	F 55	2	1	4	5	3	2	6	9	18	8	3	1	5	5	9	13	12	26	17	8
34. Other violence	M 4	F 5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35. Other defined diseases	M 4	F 5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36. Causes ill-defined, or unknown	M 4	F 5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

SPECIAL CAUSES INCLUDED IN No. 35 ABOVE:

Polio-encephalitis

1	100	100	100	100	100	100	100	100	100	100
2	99	99	99	99	99	99	99	99	99	99
3	98	98	98	98	98	98	98	98	98	98
4	97	97	97	97	97	97	97	97	97	97
5	96	96	96	96	96	96	96	96	96	96
6	95	95	95	95	95	95	95	95	95	95
7	94	94	94	94	94	94	94	94	94	94
8	93	93	93	93	93	93	93	93	93	93
9	92	92	92	92	92	92	92	92	92	92
10	91	91	91	91	91	91	91	91	91	91
11	90	90	90	90	90	90	90	90	90	90
12	89	89	89	89	89	89	89	89	89	89
13	88	88	88	88	88	88	88	88	88	88
14	87	87	87	87	87	87	87	87	87	87
15	86	86	86	86	86	86	86	86	86	86
16	85	85	85	85	85	85	85	85	85	85
17	84	84	84	84	84	84	84	84	84	84
18	83	83	83	83	83	83	83	83	83	83
19	82	82	82	82	82	82	82	82	82	82
20	81	81	81	81	81	81	81	81	81	81
21	80	80	80	80	80	80	80	80	80	80
22	79	79	79	79	79	79	79	79	79	79
23	78	78	78	78	78	78	78	78	78	78
24	77	77	77	77	77	77	77	77	77	77
25	76	76	76	76	76	76	76	76	76	76
26	75	75	75	75	75	75	75	75	75	75
27	74	74	74	74	74	74	74	74	74	74
28	73	73	73	73	73	73	73	73	73	73
29	72	72	72	72	72	72	72	72	72	72
30	71	71	71	71	71	71	71	71	71	71
31	70	70	70	70	70	70	70	70	70	70
32	69	69	69	69	69	69	69	69	69	69
33	68	68	68	68	68	68	68	68	68	68
34	67	67	67	67	67	67	67	67	67	67
35	66	66	66	66	66	66	66	66	66	66
36	65	65	65	65	65	65	65	65	65	65
37	64	64	64	64	64	64	64	64	64	64
38	63	63	63	63	63	63	63	63	63	63
39	62	62	62	62	62	62	62	62	62	62
40	61	61	61	61	61	61	61	61	61	61
41	60	60	60	60	60	60	60	60	60	60
42	59	59	59	59	59	59	59	59	59	59
43	58	58	58	58	58	58	58	58	58	58
44	57	57	57	57	57	57	57	57	57	57
45	56	56	56	56	56	56	56	56	56	56
46	55	55	55	55	55	55	55	55	55	55
47	54	54	54	54	54	54	54	54	54	54
48	53	53	53	53	53	53	53	53	53	53
49	52	52	52	52	52	52	52	52	52	52
50	51	51	51	51	51	51	51	51	51	51
51	50	50	50	50	50	50	50	50	50	50
52	49	49	49	49	49	49	49	49	49	49
53	48	48	48	48	48	48	48	48	48	48
54	47	47	47	47	47	47	47	47	47	47
55	46	46	46	46	46	46	46	46	46	46
56	45	45	45	45	45	45	45	45	45	45
57	44	44	44	44	44	44	44	44	44	44
58	43	43	43	43	43	43	43	43	43	43
59	42	42	42	42	42	42	42	42	42	42
60	41	41	41	41	41	41	41	41	41	41
61	40	40	40	40	40	40	40	40	40	40
62	39	39	39	39	39	39	39	39	39	39
63	38	38	38	38	38	38	38	38	38	38
64	37	37	37	37	37	37	37	37	37	37
65	36	36	36	36	36	36	36	36	36	36
66	35	35	35	35	35	35	35	35	35	35
67	34	34	34	34	34	34	34	34	34	34
68	33	33	33	33	33	33	33	33	33	33
69	32	32	32	32	32	32	32	32	32	32
70	31	31	31	31	31	31	31	31	31	31
71	30	30	30	30	30	30	30	30	30	30
72	29	29	29	29	29	29	29	29	29	29
73	28	28	28	28	28	28	28	28	28	28
74	27	27	27	27	27	27	27	27	27	27
75	26	26	26	26	26	26	26	26	26	26
76	25	25	25	25	25	25	25	25	25	25
77	24	24	24	24	24	24	24	24	24	24
78	23	23	23	23	23	23	23	23	23	23
79	22	22	22	22	22	22	22	22	22	22
80	21	21	21	21	21	21	21	21	21	21
81	20	20	20	20	20	20	20	20	20	20
82	19	19	19	19	19	19	19	19	19	19
83	18	18	18	18	18	18	18	18	18	18
84	17	17	17	17	17	17	17	17	17	17
85	16	16	16	16	16	16	16	16	16	16
86	15	15	15	15	15	15	15	15	15	15
87	14	14	14	14	14	14	14	14	14	14
88	13	13	13	13	13	13	13	13	13	13
89	12	12	12	12	12	12	12	12	12	12
90	11	11	11	11	11	11	11	11	11	11
91	10	10	10	10	10	10	10	10	10	10
92	9	9	9	9	9	9	9	9	9	9
93	8	8	8	8	8	8	8	8	8	8
94	7	7	7	7	7	7	7	7	7	7
95	6	6	6	6	6	6	6	6	6	6
96	5	5	5	5	5	5	5	5	5	5
97	4	4	4	4	4	4	4	4	4	4
98	3	3	3	3	3	3	3	3	3	3
99	2	2	2	2	2	2	2	2	2	2
100	1	1	1	1	1	1	1	1	1	1

TABLE OF SQUARES

1. The squares of the numbers 1 to 100 are given in this table.
 2. The squares are arranged in a grid of 10 columns and 100 rows.
 3. The first column contains the numbers 1 to 100.
 4. The second column contains the squares of the numbers 1 to 100.
 5. The third column contains the squares of the numbers 101 to 200.
 6. The fourth column contains the squares of the numbers 201 to 300.
 7. The fifth column contains the squares of the numbers 301 to 400.
 8. The sixth column contains the squares of the numbers 401 to 500.
 9. The seventh column contains the squares of the numbers 501 to 600.
 10. The eighth column contains the squares of the numbers 601 to 700.
 11. The ninth column contains the squares of the numbers 701 to 800.
 12. The tenth column contains the squares of the numbers 801 to 900.
 13. The eleventh column contains the squares of the numbers 901 to 1000.

Year	1950	1951	1952	Total
1	100	100	100	300
2	100	100	100	300
3	100	100	100	300
4	100	100	100	300
5	100	100	100	300
6	100	100	100	300
7	100	100	100	300
8	100	100	100	300
9	100	100	100	300
10	100	100	100	300
11	100	100	100	300
12	100	100	100	300
13	100	100	100	300
14	100	100	100	300
15	100	100	100	300
16	100	100	100	300
17	100	100	100	300
18	100	100	100	300
19	100	100	100	300
20	100	100	100	300
21	100	100	100	300
22	100	100	100	300
23	100	100	100	300
24	100	100	100	300
25	100	100	100	300
26	100	100	100	300
27	100	100	100	300
28	100	100	100	300
29	100	100	100	300
30	100	100	100	300