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City of Birmingham

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REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1935

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BIRMINGHAM:  
TEMPLAR PRINTING WORKS, EDMUND STREET.  
1936



City of Birmingham  
REPORT  
1935

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City of Birmingham

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Printed by the City of Birmingham

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PUBLIC HEALTH DEPARTMENT,  
THE COUNCIL HOUSE,  
BIRMINGHAM.

TO THE CHAIRMAN AND MEMBERS, PUBLIC HEALTH AND MATERNITY AND  
CHILD WELFARE COMMITTEE.

The following pages will indicate that in a number of directions the City has shown direct evidence during 1935 of a growth in health, and that along many channels there has been progress made in the development of services making for social health.

The general death-rate, the infant mortality, and the maternal mortality have all been lowered, while the slight increase in the birth-rate of 1934 has been repeated in 1935. The tuberculosis death-rate is equal to that for 1934, which reached the lowest figure recorded in the City.

Among the infectious diseases, scarlet fever showed a considerable prevalence, substantially greater than in 1934, and in fact higher than for a number of years past, but the type of disease continued in general to be very mild. Diphtheria showed again the increased prevalence noted in Birmingham and in many other parts of the country in 1934, and continued generally to be of the graver type recently experienced. The effect of immunisation was demonstrated in the fact that the death-roll from diphtheria again did not include a single person who had undergone the course of immunisation.

A wave of measles was experienced during the year, with a considerable mortality. The treatment of a larger number of mild scarlet fever cases in their homes, and the opening of new ward blocks at Little Bromwich Hospital allowed of the admission of considerable numbers of the more severe cases of measles and whooping cough for treatment under good hospital conditions.

The sound progress of the scheme for the control of venereal diseases is suggested by the figures which show diminishing numbers of cases of venereal infection, combined with a rising attendance, for diagnosis, of persons found on examination not to be thus infected, and a greatly increased attendance of infected patients for systematic treatment. All these features are encouraging.

Housing continued to be a centre of attention throughout the year, including as it did the representation of fifty-two Clearance Areas comprising 1,242 houses. The grand total of houses represented for demolition since the commencement of the five-year programme amounted, by the end of 1935, to 2,965 in 101 areas and 2,245 individual houses, or a total of 5,210 houses. Since the end of the year difficulties in re-housing, arising from shortage of labour in the building trade, have involved a temporary suspension of representations of further clearance areas and of all except the most urgent representations of individual houses. Further details of this must be postponed till the next report, by which time it may be hoped that progress in slum clearance may have been resumed. Meanwhile the Department has continued systematically to collect details of areas due for representation, with a view to prompt action when practicable.

The City Hospitals have been heavily pressed during the year, and your Committee have had under anxious consideration the need for additional accommodation at Selly Oak Hospital. Proposals in regard to this are likely to come before the City Council during the coming autumn.

The maternity and child welfare services of the City have continued to expand. Attention is drawn to a review of the antenatal and neonatal death-rate set out in the body of the report. During the year the new combined child welfare centre and venereal diseases clinic in Lancaster Street, replacing worn-out premises in Aston Street, was opened by the late Mrs. J. B. Burman, whose death, so deeply deplored by all, meant to us the grave loss of a most gracious personality, a pioneer and leader among the many voluntary workers who play so fine a part in the City service.

I am happy again to record the uniformly keen and helpful spirit which has continued to permeate the Department; and glad also to have the opportunity to acknowledge the consideration and support so consistently given by yourself, Mr. Chairman, and by each and every member of the Committee.

I am,

Your obedient Servant,

H. P. NEWSHOLME,

*Medical Officer of Health.*

*July, 1936.*





# CITY OF BIRMINGHAM.

## REPORT OF THE MEDICAL OFFICER OF HEALTH For the year 1935.

### SUMMARY OF STATISTICS.

Area (in acres), 51,147.

Population (Census, 1931), 1,002,603.

Estimated by Medical Officer, 1935, 1,033,000.

Estimated by Registrar-General, 1935, 1,013,700.

Total number of houses at April 1st, 1935, according to rate books, 261,093.

Rateable value, £6,756,520 (April 1st, 1935).

Sum represented by a penny rate, £25,838.

Extracts from vital statistics of the year 1935:—

Births—Males : 8,059	} Legitimate, 15,381	} Birth Rate, 15.4.
Females : 7,852		

Stillbirths, 548. Rate per 1,000 total live and stillbirths, 33.

Deaths, 11,233. Crude Death-rate 10.9. Standardised Death-rate 12.0.

Percentage of deaths occurring in public institutions—51 per cent.

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

	Deaths.	Rate per 1,000 live and still births.
From sepsis	23	1.40
From other causes	33	2.00
Total	56	3.40

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

Legitimate, 63. Illegitimate, 91. Total, 64.

Deaths from Measles (all ages), 52.

Deaths from Whooping Cough (all ages), 66.

Deaths from Diarrhoea (under two years of age), 123.

## 1. POPULATION AND MORTALITY STATISTICS.

### POPULATION.

The Registrar General estimated the population of Birmingham at 1,013,700 on June 30th, 1935. The local estimate, based on the natural increase due to excess of births over deaths, with an allowance for migration, was 1,033,000.

### BIRTHS.

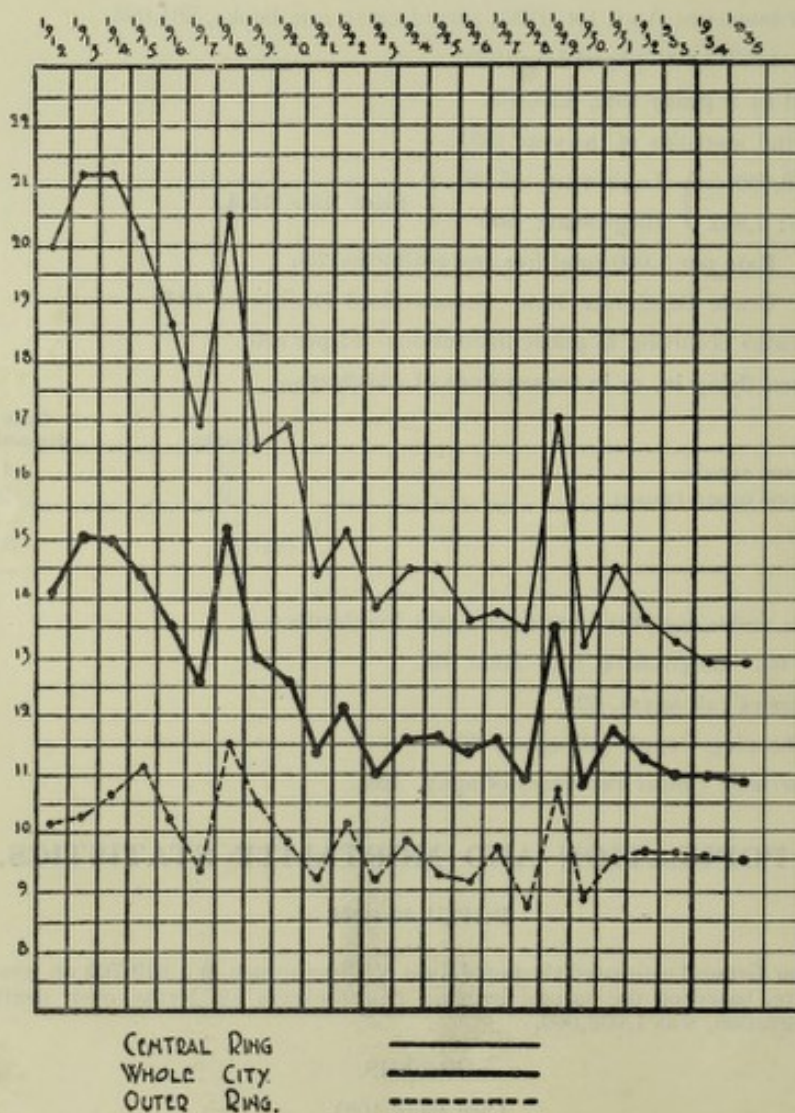
(See page 108).

## DEATHS.

The deaths belonging to Birmingham numbered 11,233 as compared with 11,347 in 1934 and 11,295 in 1933. Of these deaths 5,815 were of males and 5,418 of females.

The death-rate for 1935 was 10.9. This comes near to the lowest rate yet attained in Birmingham, viz.: 10.8 in 1930, a year which both locally and nationally established a record in this respect. The corresponding rate in 1934 was 11.0. The average for the ten years prior to 1935 was 11.5.

The fluctuations in the death-rate during the past 24 years are shown on the diagram below, which also shows the rates in the Central and Outer groups of wards.

DEATH RATES.



The progress in reduction of the death-rate in England and Wales and in Birmingham during the past 65 years can be seen from the figures below:—

#### DEATH-RATES IN BIRMINGHAM AND ENGLAND AND WALES.

		Birmingham	England and Wales
1871-1875 (Old City)	...	25.2	22.0
1876-1880	...	22.8	20.8
1881-1885	...	20.7	19.4
1886-1890	...	20.2	18.9
1891-1895	...	20.3	18.7
1896-1900	...	20.5	17.7
1901-1905 (Present Area)	...	16.5	16.0
1906-1910	...	15.0	14.7
1911-1915	...	14.6	14.3
1916-1920	...	13.4	14.4
1921-1925	...	11.5	12.2
1926-1930	...	11.6	12.1
1931-1935	...	11.2	12.0
1926	...	11.3	11.6
1927	...	11.6	12.3
1928	...	10.9	11.7
1929	...	13.5	13.4
1930	...	10.8	11.4
1931	...	11.7	12.3
1932	...	11.3	12.0
1933	...	11.0	12.3
1934	...	11.0	11.8
1935	...	10.9	11.7

Up to 1915 the mortality in Birmingham was above that of England and Wales. During the 20 years since that date, with one exception, it has been below the rate for the country as a whole.

The following table sets out the death-rate in 1935 for the eleven largest towns, and indicates that, despite its size, Birmingham occupies a favourable position:—

#### COMPARATIVE DEATH RATES IN ELEVEN LARGEST TOWNS.

London	...	...	...	...	11.4 per 1,000
Glasgow	...	...	...	...	13.8
Birmingham	...	...	...	...	10.9
Liverpool	...	...	...	...	13.2
Manchester	...	...	...	...	12.9
Sheffield	...	...	...	...	11.9
Leeds	...	...	...	...	13.2
Edinburgh	...	...	...	...	13.3
Bristol	...	...	...	...	10.8
Bradford	...	...	...	...	14.3
Hull	...	...	...	...	12.2

#### MORTALITY BY AGE AND SEX.

The deaths at different age periods were as follows:—

	Males.	Females.	Persons.
Under 1 year	571	453	1,024
1 and under 2	73	60	133
2 and under 5	83	85	168
5 and under 15	138	130	268
15 and under 25	195	183	378
25 and under 45	637	577	1,214
45 and under 65	1,831	1,308	3,139
65 and under 75	1,306	1,241	2,547
75 and upwards	981	1,381	2,362

The deaths at ages over 65 years are largely to be regarded as in the natural order of things and to that extent as inevitable. They number 4,909 out of a total of 11,233.

The deaths at ages below 65 years contain large groups capable of marked reduction under healthy conditions of life and granted the whole-hearted co-operation of the public in living the healthy life. In 1935 such largely preventable deaths numbered 6,324, or 56 per cent. of the total.

Included among these are 1,024 deaths under 1 year of age, and a further 301 deaths between 1 and 5 years. The causes of mortality in these groups are set out in detail in the section of this report on Maternity and Child Welfare (Section VII).

Among school children (5 to 15 years), the largest individual cause of death was diphtheria with 54 deaths, while accident (38), rheumatic fever (21), nervous diseases (25), and tuberculosis (39), were responsible for a not inconsiderable mortality at this age.

Among young people between 15 and 25 years, there were 378 deaths (7 per week on an average) of which 152 were due to tuberculosis.

In early adult life (25 to 45 years), 1,214 deaths occurred. At this age period also tuberculosis heads the list of diseases with 310 deaths.

In later adult life (45 to 65 years), the largest number of deaths was caused by heart and circulatory diseases (865), cancer being second (701 deaths), respiratory diseases third (320), and tuberculosis fourth with 233.

Fuller details as to the causes of death at different age periods and in the two sexes are given in Table II at the end of this report.

#### INFANT MORTALITY.

(See page 110).

#### DEATH-RATES IN WARDS.

In 1935 the death-rates in the different wards were as set out below. As in previous years there continue to be marked differences in the death-rates in the various wards of the City:—

DEATH-RATES IN WARDS.				1935.	
Central Wards	{	St. Paul's	...	12.6	Average 12.9
		St. Mary's	...	13.3	
		Duddeston and Nechells	...	11.4	
		St. Bartholomew's	...	12.8	
		St. Martin's and Deritend	...	13.3	
		Market Hall	...	13.2	
		Ladywood	...	13.5	
Middle Ring	{	Lozells	...	12.5	Average 11.6
		Aston	...	11.8	
		Washwood Heath	...	9.4	
		Saltley	...	9.7	
		Small Heath	...	10.0	
		Sparkbrook	...	13.4	
		Balsall Heath	...	12.8	
		Edgbaston	...	12.1	
		Rotton Park	...	12.2	
Outer Ring	{	All Saints'	...	12.1	Average 9.5
		Soho	...	13.1	
		Sandwell	...	10.3	
		Handsworth	...	13.7	
		Perry Barr	...	5.2	
		Erdington	...	8.7	
		Gravelly Hill	...	8.1	
		Bromford	...	9.0	
		Stechford	...	8.5	
		Yardley	...	8.7	
		Acocks Green	...	9.0	
		Hall Green	...	6.9	
		Sparkhill	...	11.8	
		Moseley and King's Heath	...	11.5	
		Selly Oak	...	11.0	
		King's Norton	...	10.3	
		Northfield	...	7.1	
		Harborne	...	8.5	



In November 1934 many alterations were made in the boundaries of the Wards of the City, making it impossible to compare rates for individual Wards in 1935 with those in previous years. It is, however, roughly correct to compare the total figures for the Central, Middle Ring and Outer Ring of Wards with those for previous years and the mean death-rates for the three groups are given in the next table:—

			Central Wards	Middle Ring	Outer Ring
1930	...	...	13.3	10.8	8.9
1931	...	...	14.5	12.3	9.5
1932	...	...	13.6	11.7	9.8
1933	...	...	13.3	11.4	9.7
1934	...	...	12.9	12.0	9.6
1935	...	...	12.9	11.6	9.5

The diagram on page 8 shows the death-rate during the past 24 years in the City as a whole contrasted with that of the Central Wards and of the Outer Ring. It will be noted that the mortality in the Central Wards is much nearer to that of the whole City than it was 24 years ago. Nevertheless the difference between the Central and the Outer Wards is still great. In 1935 there were 2,829 deaths in the Central Wards. If the death-rate in them had been as low as it was in the Outer Ring 735 of these deaths would have been avoided.

In the next table the mortality from some of the more prominent causes of death is shown for the three groups of Wards.

DEATH-RATES IN GROUPS OF WARDS, 1935.

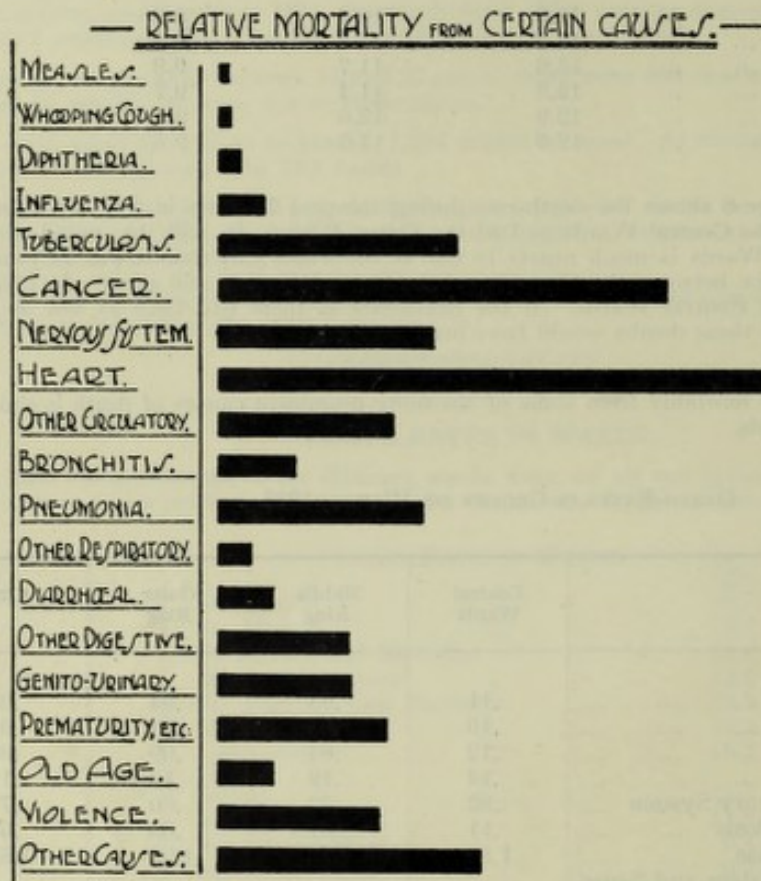
	Central Wards	Middle Ring	Outer Ring	City
Measles .....	.11	.03	.04	.05
Whooping Cough.....	.16	.05	.03	.06
Diphtheria .....	.12	.04	.09	.08
Influenza .....	.14	.19	.13	.15
Tuberculosis of Respiratory System .....	.92	.72	.60	.71
Other forms of Tuberculosis .....	.11	.07	.08	.08
Cancer, Malignant Disease .....	1.59	1.72	1.34	1.52
Diseases of Nervous System and Sense Organs .....	.92	.81	.57	.72
Diseases of Heart .....	3.02	3.06	1.94	2.55
Other Diseases of Circulatory System .....	.58	.62	.57	.59
Bronchitis.....	.35	.25	.22	.26
Pneumonia (all forms) .....	1.03	.65	.61	.72
Other Diseases of Respiratory System .....	.10	.11	.11	.11
Diarrhoea and Enteritis .....	.30	.16	.11	.17
Other Diseases of Digestive System .....	.49	.48	.42	.46
Non-Venereal Disease of Genito-urinary System .....	.42	.53	.43	.46
Premature Birth and Diseases of Early Infancy .....	.70	.49	.55	.57
Old Age .....	.21	.16	.17	.18
Violence (all forms) .....	.62	.54	.49	.54
Other Causes .....	.94	.90	.85	.89

In almost every instance the mortality is higher in the Central Wards than in the Outer Ring. This excessive mortality is very noticeable in the case of pneumonia, tuberculosis and heart diseases. In the case of pneumonia, the deaths last year in the Central Wards numbered 227. If the mortality had been no higher than in the Outer Ring they would have numbered 134, a saving of 93 lives.



## PRINCIPAL CAUSES OF DEATH.

Particulars of the deaths from individual causes at different age periods and in the two sexes are set out in Table II at the end of this Report. The relative mortality attributable last year to some of the more important of these causes is shown in the diagram below.



The statistics relating to infectious diseases (including tuberculosis) are dealt with in detail in Section VI of this Report, and those relating to diarrhoea, prematurity and other infantile complaints in Section VII.

## CANCER.

The deaths from cancer numbered 1,571 as compared with 1,469 in 1934. The part of the body primarily affected was as follows:—

	1935	1934
Lip, tongue, palate, jaw, and pharynx	85	87
Oesophagus, stomach, liver, pancreas	438	414
Peritoneum, intestine, rectum	366	361
Female organs of reproduction	148	134
Breast	199	174
Skin	14	7
Other parts	321	292

The death-rate in Birmingham and in England and Wales is shown in the table below :—

DEATH-RATE PER 1,000 FROM CANCER.

			Birmingham.	England and Wales.
1926	...	...	1.26	1.36
1927	...	...	1.36	1.38
1928	...	...	1.35	1.42
1929	...	...	1.34	1.44
1930	...	...	1.43	1.45
1931	...	...	1.46	1.48
1932	...	...	1.45	1.51
1933	...	...	1.43	1.53
1934	...	...	1.43	1.56
1935	...	...	1.52	—

CANCER DEATH-RATES IN WARDS.

	Ward.	Death-rate 1935.
Central Wards	St. Paul's	1.67
	St. Mary's	1.48
	Duddeston and Nechells	1.24
	St. Bartholomew's	1.69
	St. Martin's and Deritend	1.62
	Market Hall	1.69
	Ladywood	1.84
Middle Ring	Lozells	2.08
	Aston	1.75
	Washwood Heath	1.48
	Saltley	1.81
	Small Heath	1.19
	Sparkbrook	2.07
	Balsall Heath	1.98
	Edgbaston	1.73
	Rotton Park	1.37
	All Saints	1.77
Outer Ring	Soho	2.16
	Sandwell	1.42
	Handsworth	2.13
	Perry Barr	0.60
	Erdington	1.74
	Gravelly Hill	1.02
	Bromford	1.18
	Stechford	0.81
	Yardley	1.01
	Acocks Green	1.26
	Hall Green	0.91
	Sparkhill	1.65
	Moseley and King's Heath	1.53
	Selly Oak	1.69
	King's Norton	1.87
	Northfield	0.71
	Harborne	1.59

In some of the newer parts of the town, such as Perry Barr and Northfield, the favourable death-rate in respect of cancer is no doubt attributable to the small number of people there who are at an age when they are likely to suffer from the disease. The number of deaths in individual wards is, however, so low as to make comparison between wards unjustifiable.

The Public Health Committee continue to pay an annual contribution of £250 to the Birmingham Branch of the British Empire Cancer Campaign in support of their work on cancer research.

In 1934 a legacy of £1,000 was left to the City Council by the late J. R. Turner for cancer research work. It was decided to pay the legacy to the British Empire Cancer Campaign (Birmingham Branch) over a period of three years for research work in connection with cancer of the lungs.



## DISEASES OF THE HEART AND BLOOD VESSELS.

There were 3,242 deaths from these diseases as compared with 3,126 in 1934. The death-rates during the past ten years have been as follows:—

	Birmingham.	England and Wales.
1926 ... ..	2.12	2.21
1927 ... ..	2.28	2.52
1928 ... ..	2.41	2.69
1929 ... ..	2.76	3.06
1930 ... ..	2.57	2.83
1931 ... ..	2.90	3.14
1932 ... ..	2.73	3.18
1933 ... ..	2.94	3.30
1934 ... ..	3.04	3.33
1935 ... ..	3.14	—

The death-rates in Birmingham are somewhat below those in England and Wales.

The age distribution of the deaths in 1935 was as follows:—

Under 1 year	...	9	0.3%
1 and under 2	...	1	0.0%
2 " 5	...	3	0.1%
5 " 15	...	3	0.1%
15 " 25	...	24	0.7%
25 " 45	...	119	3.7%
45 " 65	...	865	26.7%
65 " 75	...	1,059	32.7%
75 and over	...	1,159	35.7%

## DEATH-RATES FROM DISEASES OF HEART AND BLOOD VESSELS.

	Ward.	Death-rate. 1935.	
Central Wards	St. Paul's	3.49	Average 3.62
	St. Mary's	3.63	
	Duddeston and Nechells	2.83	
	St. Bartholomew's	3.62	
	St. Martin's and Deritend	4.13	
	Market Hall	4.11	
	Ladywood	3.55	
Middle Ring	Lozells	3.72	Average 3.67
	Aston	4.08	
	Washwood Heath	2.53	
	Saltley	3.17	
	Small Heath	3.46	
	Sparkbrook	4.24	
	Balsall Heath	3.80	
	Edgbaston	3.84	
	Rotton Park	3.98	
Outer Ring	All Saints	3.87	Average 2.56
	Soho	3.14	
	Sandwell	3.43	
	Handsworth	4.07	
	Perry Barr	0.95	
	Erdington	2.42	
	Gravelly Hill	2.88	
	Bromford	2.10	
	Stechford	1.96	
	Yardley	2.25	
	Acocks Green	2.04	
	Hall Green	1.63	
	Sparkhill	3.52	
	Moseley and King's Heath	3.85	
	Selly Oak	3.00	
	King's Norton	2.90	
	Northfield	1.42	
	Harborne	1.95	

## BRONCHITIS, PNEUMONIA AND OTHER RESPIRATORY DISEASES.

The mortality from these diseases varies greatly from year to year, being influenced markedly by weather conditions and by the prevalence of such diseases as influenza, measles or whooping-cough. In 1935 the mortality was comparatively low.

The mortality in recent years has been as follows:—

				Birmingham.	England and Wales.
1926	...	...	...	1.88	1.74
1927	...	...	...	1.89	1.93
1928	...	...	...	1.56	1.51
1929	...	...	...	2.26	2.10
1930	...	...	...	1.32	1.30
1931	...	...	...	1.61	1.60
1932	...	...	...	1.47	1.36
1933	...	...	...	1.32	1.39
1934	...	...	...	1.26	1.24
1935	...	...	...	1.09	—

Unlike heart disease, respiratory diseases generally cause a somewhat higher mortality in Birmingham than in England and Wales as a whole. A considerable part of the mortality occurs in early life, the deaths last year being distributed as follows:—

Under 1 year	...	...	...	148	or	13.2%
1 and under 2 years	...	...	...	40	"	3.6%
2 " 5	...	...	...	22	"	2.0%
5 " 15	...	...	...	15	"	1.3%
15 " 25	...	...	...	24	"	2.1%
25 " 45	...	...	...	126	"	11.2%
45 " 65	...	...	...	320	"	28.4%
65 " 75	...	...	...	215	"	19.1%
75 and over	...	...	...	215	"	19.1%
All Ages	...	...	...	1,125	"	—

## DEATH-RATE PER 1,000 FROM RESPIRATORY DISEASES.

	Ward.	Death-rate 1935.	
Central Wards	St. Paul's	1.37	Average 1.48
	St. Mary's	1.52	
	Duddeston and Nechells	1.48	
	St. Bartholomew's	1.66	
	St. Martin's & Deritend...	1.43	
	Market Hall	1.28	
	Ladywood	1.60	
Middle Ring	Lozells	0.78	Average 1.01
	Aston	1.04	
	Washwood Heath...	0.72	
	Saltley	0.78	
	Small Heath	1.08	
	Sparkbrook	1.22	
	Balsall Heath	1.06	
	Edgbaston	0.92	
	Rotton Park	1.15	
	All Saints'	1.35	

Ward.					Death-rate 1935.
Outer Ring	{	Soho	...	...	1.51
		Sandwell	...	...	0.69
		Handsworth	...	...	1.51
		Perry Barr	...	...	0.74
		Erdington	...	...	0.85
		Gravelly Hill	...	...	0.79
		Bromford	...	...	1.07
		Stechford	...	...	0.98
		Yardley	...	...	0.81
		Acocks Green	...	...	1.06
		Hall Green	...	...	0.69
		Sparkhill	...	...	1.07
		Moseley and King's Heath	...	...	0.95
		Selly Oak	...	...	1.07
		King's Norton	...	...	1.00
		Northfield	...	...	0.68
		Harborne	...	...	0.88
					Average 0.96

It will be seen that respiratory diseases are much more common as a cause of death in the Central Wards than elsewhere.

The highest death-rate was 1.66 per 1,000 in St. Bartholomew's ward; the lowest, 0.68 in Northfield.



## II. GENERAL PROVISION OF HEALTH SERVICES.

### PUBLIC HEALTH OFFICERS.

#### *General.*

Medical Officer of Health	...	...	...	...	...	1
Secretary	...	...	...	...	...	1
Medical Staff, whole-time, for general purposes...	...	...	...	...	...	2
General Clerical and Financial Staff	...	...	...	...	...	50

#### *Sanitary Department.*

Staff of Sanitary Inspectors	...	...	...	...	...	76
Disinfectors, etc.	...	...	...	...	...	10
Cleansing Staff	...	...	...	...	...	6
Clerical Staff	...	...	...	...	...	10

#### *Maternity and Child Welfare Department.*

Medical Staff (whole-time)	...	...	...	...	...	16
Medical Staff (part-time)	...	...	...	...	...	20
Health Visitors, etc.	...	...	...	...	...	108
Instructors	...	...	...	...	...	5
Caretakers and Cleaners	...	...	...	...	...	36
Porters and Gardeners	...	...	...	...	...	14
Nursing Staff (Hospitals & Homes)	...	...	...	...	...	105
Domestic and Laundry Staff	...	...	...	...	...	64
Clerical Staff	...	...	...	...	...	8
Others	...	...	...	...	...	5

#### *Tuberculosis Department.*

Medical Staff	...	...	...	...	...	9
Nursing Staff (Sanatoria)	...	...	...	...	...	117
Domestic Staff	...	...	...	...	...	71
Porters, Gardeners, Stokers, Drivers	...	...	...	...	...	53
Tuberculosis Visitors and Dispensary Nurses	...	...	...	...	...	19
Clerical Staff	...	...	...	...	...	15
Others	...	...	...	...	...	9

#### *Infectious Diseases Hospital*

Medical Staff	...	...	...	...	...	6
Nursing Staff	...	...	...	...	...	169
Domestic Staff	...	...	...	...	...	65
Porters, Gardeners, Stokers, Drivers	...	...	...	...	...	58
Others	...	...	...	...	...	13

#### *General Hospitals and Convalescent Homes.*

Medical Staff	...	...	...	...	...	36
Nursing Staff	...	...	...	...	...	808
Domestic Staff	...	...	...	...	...	345
Porters, Gardeners, Stokers, Drivers	...	...	...	...	...	173
Clerical Staff	...	...	...	...	...	46
Workmen	...	...	...	...	...	58
Others	...	...	...	...	...	48

#### *Works Department.*

Manager, Workmen and Clerks	...	...	...	...	...	70
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#### *Bacteriological Department.*

Medical Staff	...	...	...	...	...	2
Assistants and Staff	...	...	...	...	...	14

#### *Analytical Department.*

City Analyst and Deputy	...	...	...	...	...	2
Assistants and Staff	...	...	...	...	...	4

#### *Public Vaccination.*

Public Vaccinators (part-time)	...	...	...	...	...	21
Vaccination Officers (whole-time)	...	...	...	...	...	6

Inspection of Cowsheds and Dairies and of meat and other foods is carried out by the Veterinary Department on behalf of the Public Health Committee.



## CONSULTATION WITH VOLUNTARY HOSPITALS.

There has not been occasion during the year for formal consultation with the representatives of the Voluntary Hospitals under the terms of the Local Government Act, 1929. On a number of occasions the appropriate officers of Voluntary Hospitals have been consulted on matters of mutual interest or concern.

## POOR LAW MEDICAL OUT-RELIEF.

The Public Assistance Committee in March, 1934, decided that, having regard to the changed conditions in the outskirts of the City, there was a great need for a revision of the Medical Relief Districts, and that when the Out Relief Districts were also revised, an opportunity should be taken to deal with the matter on the basis of Municipal Ward boundaries.

A scheme was presented to the Public Assistance Committee in December, 1935, recommending that the 17 Medical Relief Districts, which bore no relation to the Municipal Wards or the Out Relief districts, should be altered so that the boundaries of the Out Relief districts and Medical Relief districts should as far as possible be co-terminous with the Municipal Ward boundaries. It was found that the large Municipal Housing Estates developed in various parts of the City, together with the area in the Castle Bromwich and Sheldon localities (which were added to the City by the operation of the Birmingham-Sutton Coldfield Order) had had the effect of considerably increasing the population of what were at one time sparsely populated districts. The Committee therefore decided to revise the districts on a Municipal Ward basis, and to allocate one or more of the wards as nearly as possible to the present area in order that the services of the present District Medical Officers could be conveniently utilised. It was found that the 34 wards of the City could be divided into 19 Medical Relief districts, the four whole-time District Medical Officers being responsible for 14 of the wards. Five districts were composed of two wards, and 10 districts of one ward only.

## INSTITUTIONAL PROVISION FOR THE CARE OF MENTAL DEFECTIVES.

No new accommodation was provided during the year.

## NURSING IN THE HOME.

The following cases were nursed at home during the year by the District Nursing Societies on behalf of the Public Health Department:—

Measles	...	...	...	...	...	...	...	69
Measles with Pneumonia	...	...	...	...	...	...	...	25
Whooping Cough	...	...	...	...	...	...	...	7
Whooping Cough with Pneumonia	...	...	...	...	...	...	...	9
Whooping Cough with Measles	...	...	...	...	...	...	...	1
Chickenpox	...	...	...	...	...	...	...	1
Pneumonia	...	...	...	...	...	...	...	787
Puerperal Pyrexia	...	...	...	...	...	...	...	12
								<hr/>
								911
								<hr/>

The amount paid to the Societies on account of this work was £911.

Cases of Ophthalmia Neonatorum and other forms of ophthalmia are visited in their homes, as far as necessary, by nurses from the Eye Hospital, a grant of £400 per annum being paid to the hospital in respect of this service, together with travelling expenses.

MIDWIVES.  
(See page 145).

## BACTERIOLOGICAL LABORATORY.

The work done at the City Bacteriological Laboratory is set out in the statement below :—

Diphtheria Swabs—									
(a) For Practitioners	...	...	...	...	...	...	...	5,910	
(b) For Fever Hospitals	...	...	...	...	...	...	...	9,933	
(c) For virulence test	...	...	...	...	...	...	...	2,659	
Fæces	...	...	...	...	...	...	...	969	
Haemolytic Tests	...	...	...	...	...	...	...	2,313	
Milk	...	...	...	...	...	...	...	572	
Milk for Tuberculosis	...	...	...	...	...	...	...	1,873	
Shell Fish	...	...	...	...	...	...	...	101	
Sputum for Tuberculosis	...	...	...	...	...	...	...	2,427	
Vaccines	...	...	...	...	...	...	...	14	
Venereal Diseases—									
Blood for Wassermann Reaction	...	...	...	...	...	...	...	13,197	
Cerebro-Spinal Fluid—									
(a) For Wassermann Reaction	...	...	...	...	...	...	...	563	
(b) For Cell Count	...	...	...	...	...	...	...	102	
Films for Gonorrhœa	...	...	...	...	...	...	...	10,678	
Gonococcal Fixation Test	...	...	...	...	...	...	...	3,684	
Serum for Spirochaetes	...	...	...	...	...	...	...	8	
Urine Examinations—									
(a) Microscopic	...	...	...	...	...	...	...	16	
(b) Chemical	...	...	...	...	...	...	...	584	
Cultures prepared	...	...	...	...	...	...	...	9,616	
Vaccines prepared	...	...	...	...	...	...	...	347	
Van den Bergh's Test	...	...	...	...	...	...	...	3,769	
Water samples	...	...	...	...	...	...	...	699	
Widal's Reaction	...	...	...	...	...	...	...	1,120	
Sigma reaction	...	...	...	...	...	...	...	150	
Miscellaneous	...	...	...	...	...	...	...	6,371	
								Total	77,675

## ANALYTICAL LABORATORY.

The following statement indicates the samples analysed in the City Analyst's Department :—

	1934.	1935.
Food and drug samples	5,383	5,464
Soot gauge samples	24	24
Fertilisers and feeding stuffs	23	22
Miscellaneous samples	985	731
	6,415	6,241

## Food and Drugs Acts—

Samples adulterated with preservatives only	...	...	2	4
Samples adulterated in other ways	...	...	264	218
Unmarked or improperly marked margarine	...	...	2	—
False labels	...	...	13	12
Number of vendors of incorrect samples	...	...	175	151
Number of prosecutions	...	...	15	15
Number of fines	...	...	15	9
Amount of fines and costs	...	...	£35/5/0	£43/11/3
Number of cautions	...	...	150	163

Particulars relating to this work are given in the Report of the City Analyst.



## NEW LEGISLATION IN FORCE.

The following Acts of Parliament came into force during the year, and were delegated by the City Council to the Public Health and Maternity and Child Welfare Committee:—

*Birmingham Corporation Act, 1935.*

Sections 39 and 41.

Part VI (except sections 52 and 53).

Section 105 (jointly with other committees of the Council).

*Housing Act, 1935.*

Sections 1, 2 and 4 (jointly with Estates and Public Works and Town Planning Committees).

Sections 3, 5, 6 and 10.

Section 55.

Section 68.

Section 82 (in conjunction with Estates Committee).

## HOSPITALS.

No material alteration took place during the year in the amount and character of the hospital accommodation available.

The part which the hospitals—voluntary and municipal—play in the treatment of sickness may be inferred in some degree from the fact that last year 5,733 deaths out of a total 11,233 occurred in hospitals and kindred institutions. Details of these deaths are as follows:—

Dudley Road Hospital	...	...	...	...	...	...	1,066
Selly Oak Hospital	...	...	...	...	...	...	611
Selly Oak Infirmary	...	...	...	...	...	...	629
General Hospital	...	...	...	...	...	...	409
Queen's Hospital	...	...	...	...	...	...	246
Children's Hospital	...	...	...	...	...	...	199
Women's Hospital and Taylor Home	...	...	...	...	...	...	78
Maternity Hospital	...	...	...	...	...	...	87
City Fever Hospitals, Babies Hospital and Maternity Homes	...	...	...	...	...	...	330
City Mental Hospitals	...	...	...	...	...	...	178
City Sanatoria	...	...	...	...	...	...	259
Western House	...	...	...	...	...	...	775
Erdington House	...	...	...	...	...	...	374
Private Hospitals	...	...	...	...	...	...	198
Institutions outside the City	...	...	...	...	...	...	294

The extent to which hospitals are used for particular diseases can in some degree be estimated from the statement below:—

	No. of Deaths.	Percentage of Total Deaths from this cause
Measles	41	79%
Whooping Cough	43	65%
Diphtheria	75	89%
Influenza	15	10%
Tuberculosis of Respiratory System	350	48%
Other forms of Tuberculosis	63	74%
Cancer	710	45%
Diseases of Nervous System, etc.,	394	53%
Diseases of Heart and Circulatory System	1,317	41%
Bronchitis	71	26%
Pneumonia	456	62%
Other Respiratory Diseases	53	45%
Diseases of Digestive System	491	76%
Genito-urinary System	280	59%
Premature Birth, etc.	414	71%
Old Age	55	29%
Violence	319	57%
Other causes	586	63%
Total	5,733	51%

## CO-OPERATION WITH VOLUNTARY HOSPITALS.

There is a large degree of co-operation between the Public Health Department and the Voluntary Hospitals, and grants are paid by the Public Health and Maternity and Child Welfare Committee to certain hospitals in respect of the activities named below :—

(1) Under the Venereal Diseases Scheme patients are treated at special clinics at the General Hospital and the Children's Hospital.

(2) Cases of Bone Tuberculosis are treated at the Royal Cripples' Hospital and to a smaller extent at a number of other institutions.

(3) Puerperal Fever cases are admitted to the Women's Hospital and difficult cases of confinement to the Maternity Hospital.

(4) For Out-patient Orthopaedic cases under 5 years of age the Royal Cripples' Hospital receives a *per capita* fee.

(5) Cases of tonsils and adenoids and of eye and ear defects discovered at the Maternity and Child Welfare Centres are referred to the Children's Hospital for operation or treatment.

(6) Cases of ophthalmia neonatorum are sent to the Eye Hospital, for out-patient or in-patient treatment as may be appropriate, while home visiting of cases is carried out by nurses on the Hospital staff.

## CITY GENERAL HOSPITALS.

The statistics relating to the work of Dudley Road and Selly Oak Hospitals and Selly Oak Infirmary are given below :—

## (a) IN-PATIENTS.

	Dudley Road Hospital	Selly Oak Hospital	Selly Oak Infirmary
Total number of admissions (including infants born in hospital)	13,901	9,940	2,828
Number of women confined in hospital	1,085	671	—
Number of live births	1,030	644	—
Number of stillbirths	58	40	—
Number of deaths among the newly born (under 4 weeks)	60	35	—
Number of maternal deaths (confined in hospital)	7	6	—
Total number of deaths	1,173	624	658
Total number of discharges (including infants born in hospital)	12,723	9,321	2,136

## (b) OUT-PATIENTS.

Number of persons seen in out-patient department	34,895	12,677	Run in conjunction with Selly Oak Hospital
Total number of attendances	139,709	76,242	
Number of women seen at ante-natal clinic	861	703	
Total attendances	2,497	2,527	



## (c) CLASSIFICATION OF IN-PATIENTS DISCHARGED OR DIED.

	Dudley Road Hospital	Selly Oak Hospital	Selly Oak Infirmary
(a) Acute infectious diseases .....	277	19	11
(b) Influenza .....	85	21	0
(c) Tuberculosis :			
Pulmonary .....	103	35	7
Non-pulmonary .....	56	31	15
(d) Malignant disease .....	436	201	188
(e) Rheumatism :			
(1) Acute rheumatism (rheumatic fever), together with sub-acute rheumatism and chorea .....	496	163	27
(2) Non-articular manifestations of so-called "rheuma- tism" (muscular rheumatism, fibrositis, lumbago, and sciatica) .....	59	22	7
(3) Chronic arthritis .....	48	60	40
(f) Venereal disease .....	39	4	5
(g) Puerperal pyrexia .....	25	11	—
(h) Puerperal fever .....	21	4	—
(i) Other diseases and accidents connected with child-bearing	843	408	—
(j) Mental diseases .....	46	2	12
(k) Senile decay .....	7	11	59
(l) Violence .....	1,717	1,110	90

In respect of cases not included above :—

(m) Diseases of the nervous system and sense organs .....	290	271	261
(n)     "     "     respiratory system .....	1,696	821	532
(o)     "     "     circulatory     " .....	556	468	301
(p)     "     "     digestive     " .....	2,920	2,825	504
(q)     "     "     genito-urinary .....	971	790	86
(r)     "     "     skin .....	518	403	121
(s) Other diseases .....	589	928	403
(t) Maternity cases (mothers and babies) .....	2,098	1,308	66
(u) Any persons not falling under above headings .....	—	29	59

## DUDLEY ROAD HOSPITAL.

Report by the Medical Superintendent, DR. F. W. ELLIS.

During the past year the number of occupied beds in the Hospital has shewn the usual wide oscillations at frequent intervals, a characteristic which is very largely independent of the time of the year and which is the most marked feature of the admission chart.

Owing to the withdrawal of cases from Smethwick which began in the Summer with the provision of St. Chad's Hospital for the Sick Poor of that town, there was an unusual fall in the numbers in July which on the 27th fell to 657, a number lower than any recorded for a number of years.

The numbers remained below 700 until September 11th, a period of "low pressure" which has not been equalled for many years.

During the last quarter of the year, however, cases from Handsworth area, which had been treated at Hallam Hospital, West Bromwich, were admitted to Dudley Road Hospital and the numbers quickly resumed their usual level, the cases from Handsworth approximately balancing those from Smethwick.

The reduction in the admissions from Smethwick, however, which took place before the last quarter of the year, was instrumental in reducing the number of admissions during the year, which were 13,901 as against 14,479 in 1934 and 13,520 in 1933.



The highest number of occupied beds was 899 on April 19th, that month being notable all through for the very high percentage of occupied beds, maintained only by a large number of extras in all wards.

The month with the greatest number of admissions was March with 1,419.

In spite of a lesser number of admissions there has been a definite increase in many of the Departments, thus in the Radiographic Department the number of individual cases was 8,955 as against 8,257 last year, while the number of radiographs taken rose to 19,379 as against 17,405. The Deep Therapy Department showed an advance in the number of cases, 491 as against 272 and the number of irradiations 2,114 as against 1,845. The number of examinations in the Pathological Department, 13,093, showed a slight fall. The Bio-chemical Department, however, with an examination of 11,649 specimens showed a slight increase.

One of the most serious difficulties in the administration of the Hospital during the year has been the inability to find accommodation for the Chronic Sick in the Birmingham Infirmary. The work in the Infirmary became very heavy in the latter part of the year, more especially on the female side, where the number of beds available were inadequate to cope with all the cases requiring admission from outside and transfer from the Hospital, and the number of cases suitable for transfer but for whom no bed could be found became greater than in any previous year. For some years now, the number of such transfers has become less and less, but this year the difficulties were very definitely greater than ever before and there can be no doubt that the overcrowding in the wards, which was considerable at times, would have lessened in the winter months if all the Infirmary cases could have been removed.

The temporary appointment of Physician which had become imperative the previous year was made permanent and W. F. Gaisford, M.D., M.R.C.P., was appointed to the office, taking up his duties on April 1st, 1935.

During the year the work in some of the wards was interrupted by falls of the ceilings and wards B.9, C.4, and A.5 were evacuated while the ceilings were taken down and remade.

Ward B.9, which was intended to be reserved for part of the temporary Maternity accommodation during the building of the new Maternity Block, had to be re-occupied by general cases on account of the pressure on the general accommodation caused by the faulty wards being occupied by builders.

The enlargement of the Nurses Home by an extension of the two North wings for Nurses and on the South aspect for Sisters was begun on November 11th.

### SELY OAK HOSPITAL.

Report of the Medical Superintendent, MR. R. P. STANLEY KELMAN, F.R.C.S.

The year 1935 has been an anxious one, owing to the steady increase in the degree of overcrowding with consequent ward infection. A position has now been reached where, with the existing facilities, it is impossible to cope both with the incoming admissions and the ever growing out-patient waiting lists. The finding of beds for new admissions has been a continuous anxiety leading to constant re-arrangement of patients with, unfortunately, inconvenience to them. Without the co-operation and team work of the Medical and Nursing Staffs the difficulties would have been much greater. I must repeat that ward overcrowding means inability for treatments prescribed to be carried out completely, cross infection, and undue strain and worry to the Medical and Nursing Staffs. Fortunately there have been no unusual epidemics throughout the year. The average duration of stay of patients has been reduced still further to 17.88 days. The total annual admissions were 9,940 and everything points to this figure being still higher for 1936, which will mean a still further reduction in the average duration of stay. This will be in my opinion detrimental to the patients. There is now no margin whatever in the existing accommodation to cope with any unforeseen epidemics. The absence of proper barrier wards and the impossibility of segregating the ear, nose and throat cases, which are frequently of a dangerously infectious nature, have been the greatest causes of ward infection. Ward infection means not only increased risk to the patients, but also a loss in the number of effective beds available at the time. As with last year, owing to the impossibility of releasing a ward, no ward decorations have been carried out.

During the year the usual clinical meetings have been held by the Medical Staff and have led to many interesting and valuable discussions. The Pathological and Clinical Section of the British Medical Association Meeting held at Selly Oak Hospital was well attended.



The following figures show briefly the work of some of the special departments :—

*Pathological Department.*

Examinations .....	15,369
Autopsies .....	478
Biological examinations .....	357

*Biochemical Department.*

Examinations .....	5,365
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*Radiological Department.*

Cases screened .....	1,502
Cases radiographed .....	15,650

*Massage and Electro Therapeutic Department.*

Cases .....	5,208
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*Dental Department.*

Attendances .....	1,940
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The classification of the wards remains as follows, but, owing to the pressure on the accommodation, has not been strictly adhered to :—

General Medical Wards.  
General Surgical Wards.  
General Children's Wards.  
Male Urological Ward.  
Fracture Wards.  
Gynaecological Ward.  
Ear, Nose and Throat Wards.  
Maternity Department.  
Staff Sick Bay.

### SELLY OAK INFIRMARY.

Report of the Medical Superintendent, MR. R. P. STANLEY KELMAN, F.R.C.S.

The Infirmary has worked steadily throughout the year and the following figures show briefly the work done :—

Total admissions .....	2,828	(a record figure)
Average daily occupied beds .....	659	
Highest number of occupied beds in any one day .....	708	
Lowest number of occupied beds in any one day .....	610	

The complete co-operation existing between the Hospital and the Infirmary has been the only way in which beds have been made available to deal with peak periods during the year. The main difficulties that have arisen in the Infirmary during the year have been in connection with maintaining the Nursing Staff always at full strength owing to the fact that the majority of the nursing staff are still non-resident.

### GENERAL CONVALESCENT HOMES.

*Wassell Grove Convalescent Home for Women and Children.*

The Home has been open during the whole of the year, the number of admissions being approximately the same as last year. The actual numbers were 677 of which number 144 were Out Relief cases. From Dudley Road Hospital there were 263 women and children, and from Selly Oak Hospital 239; 4 cases were referred back to their Hospital for further treatment. The remainder were discharged improved or fit for work. The daily average number during the year was 33, the lowest daily average being 23 for the month of December.

*Tower House Convalescent Home for Nurses.*

The interest of the Nurses in this institution has been well maintained during this year and the number who have convalesced and who have taken advantage of its amenities for week-ends, etc., has been very satisfactory.

*"Oaklands" Convalescent Home for Men and Boys.*

The admission of men and boys for the year totalled 589.

The main diseases for which treatment was continued at the Home were as follows:—

Pneumonia	...	...	...	...	149
Rheumatic conditions	...	...	...	...	103
Debility, general	...	...	...	...	92
Debility, post operative	...	...	...	...	16
Gastric and Duodenal ulcers	...	...	...	...	71
Bronchitis	...	...	...	...	51
Cardiac conditions	...	...	...	...	24
Empyema	...	...	...	...	23
Appendicectomy	...	...	...	...	23
Neurasthenia	...	...	...	...	17
Lumbago	...	...	...	...	12
Sciatica	...	...	...	...	8

## MATERNITY AND NURSING HOMES.

(See pages 137, 147).

## UNMARRIED MOTHERS AND ILLEGITIMATE CHILDREN.

(See page 143).

## MATERNAL MORTALITY.

(See page 118).

## HEALTH VISITING.

(See page 123).

## CHILDREN ACT, 1908, CHILDREN AND YOUNG PERSONS ACTS 1932 AND 1933.

(See page 144).

## BLIND PERSONS ACT, 1920.

The City Council are responsible for the administration of the Blind Persons Act, 1920, and have made arrangements with the Birmingham Royal Institution for the Blind for the following services to be provided on their behalf:

(1) *Workshop employees.*

At the end of the year under review there were 187 workshop employees registered. The trades practised are, for men—basket making, brush making, bedding, cane furniture, chair seating, etc. For women—hand knitting, round and flat machine knitting, chair seating, etc. Although the weekly pay of these employees is at the Trade Union or other standard rate customary in the particular class of work on which the blind person is employed, the handicap of blindness prevents most blind persons from earning a livelihood if they are paid only what they earn on a strictly commercial basis. It is necessary, therefore, to augment their earnings and during 1935-6 the City Council paid £11,083 for that purpose.

(2) *Home Workers.*

There are 23 of these workers registered. Their ages vary from about 20 to 70 years, and the occupations carried out are similar to those of the workshop employees, plus such work as wood-chopping, piano tuning and repairing, music teaching, netting, boot repairing, etc.



Each home worker is provided with the requisite tools and equipment for his particular trade, and where necessary worksheds are provided. Raw materials are supplied at cost price, and every assistance is given in helping him to dispose of his goods. Augmentation of earnings is provided for the home worker, and the amount paid by the City Council for this purpose was £1,136.

### (3) *Unemployables.*

These constitute the largest category of the blind, and 1,124 were registered in 1935. The needs of these persons are two-fold—financial and social. Financial assistance is provided by the Local Authority making up their income to 25/- per week. The cost to the Corporation of this service was £19,890. As regards social assistance, the pivot of this service is the Home Teacher, whose duties include the teaching of Braille and Moon type, pastime occupation, home visiting and welfare work. The aim of the service is to secure that systematic home visiting should be provided for all blind persons needing it.

#### *Cowley Home.*

This Home provides accommodation for some 12 homeless blind women. The contribution to the cost by the Local Authority for 1935-6 was £470.

Other responsibilities in relation to the welfare of the blind undertaken by the City Council include such matters as the maintenance of blind children at Sunshine Home. The contribution to the cost by the Local Authority for 1935-6 was £128.

The total contribution for all the blind services for 1935-36 was £36,554.

The following table gives particulars relating to all blind persons resident in Birmingham, including those mentioned above as coming within the scope of the Public Health Committee's responsibilities.

	Males.	Females.	Total.
Babies in Sunshine Home	4	1	5
Babies at home	4	—	4
Babies in Public Assistance Institutions	4	1	5
Children at School—Resident	9	12	21
Children at School—Day	6	9	15
Children of school age at home	2	3	5
Children of school age in Public Assistance Institutions	6	3	9
Children of school age in Public Health Department Hospitals	1	1	2
Adults in training—Resident	7	5	12
Adults in training—Day	12	7	19
Adults awaiting training	5	—	5
Workshop workers recognised	129	58	187
Other blind employees	13	8	21
Trained home workers	15	8	23
Unemployables at home	419	571	990
Unemployables in Public Assistance Institutions	36	53	89
Unemployables in Public Health Department Hospitals	9	22	31
Unemployables in Cowley Home	—	12	12
Unemployables in Men's Hostel	2	—	2
	<hr/> 683	<hr/> 774	<hr/> 1,457

### REMOVAL OF INFIRM AND AGED PERSONS.

During 1935, 25 cases were investigated under Section 38 of the Birmingham Corporation (General Powers) Act, 1929, as compared with 33 and 38 in 1934 and 1933 respectively. The majority of the cases were admitted to an institution, while of the remainder some were found unsuitable for removal and others failed to fulfil the required conditions. In no case was an application to the Magistrates for an order for removal found necessary during the year.

Additional powers for dealing with cases of this nature have been given by Section 48 of the Birmingham Corporation Act, 1935, but no appropriate case arose during the year.



### III. SANITARY CIRCUMSTANCES.

#### WATER SUPPLY.

I am informed by Mr. Broadley, Secretary to the Water Department that the extension of the third line of 60in. pipes on the Elan Aqueduct has been carried on steadily throughout the year.

The flow of water into Bartley and Frankley Reservoirs from the Elan Aqueduct has been maintained at a quantity equal to a little more than the average rate of demand.

New electrical pumping plant has been installed at Longbridge and Short Heath Stations, and these two standby sources of supply are available for use when required. There has been very little need for the utilisation of the local well supplies, but Longbridge, Aston and Short Heath have been used on a few occasions during the year when special circumstances arose in connection with the distribution of water in the areas concerned.

At the Whitacre Pumping Station, where a regular bulk supply of 2 m.g.d. is afforded to Coventry, a triple expansion steam engine has been installed, together with a standby steam turbine and the necessary boiler equipment. This new plant is now in use for pumping the water to Coventry.

No particular difficulties in connection with the supply of water in the statutory area have been experienced. The quality of the water has been excellent and the supply ample for all purposes.

At the Whitacre Pumping Station chlorination of the water was adopted in the autumn on the suggestion of the Medical Officer of Health, consequent on the difficulty of maintaining the sand filters in a satisfactory condition in view of the abnormal algal growth in the Shustoke Reservoir and on the filters themselves. This trouble has now been overcome.

#### WELLS.

At the beginning of 1935 a survey was made of the whole of the City and a further 50 wells were charted, principally in that area of east Birmingham which has lately been annexed to the City.

During the year samples were taken from 75 shallow wells for bacteriological and chemical examination, and upon a number of these proving unsatisfactory the owners were approached, either informally or by invoking Section 62 of the Public Health Act, 1875, with the result that in most cases the dwellinghouses have now been provided with a supply of water from the Corporation mains, while in a few instances steps have been taken to cleanse and repair the wells with a view to improving the condition of the supply.

As a result, partly of action by this Department and partly of independent action by owners, some eighty houses previously supplied by shallow wells are now taking a supply of water from the mains. It is satisfactory to note that with the development of housing estates in the outer parts of the City it is becoming possible to afford a supply of Corporation water to an increasing number of hitherto isolated properties at a reasonable cost.

There now remain 355 dwellings obtaining their water supply from wells.

#### RIVERS AND STREAMS.

The annual report of the Tame Basin Joint Committee indicates that a number of important schemes of sewage disposal have been brought into effect, greatly improving the head waters of the River Tame.

Emphasis is laid on the analyses of oxygen saturation at Castle Bromwich where the River Tame has received all the drainage of the Upper Tame area and most of the drainage from Birmingham. The observations rather confirm the opinion that the condition of the River Tame generally is not due to the uncontrolled discharge of sewage and trade effluent, but to the decomposition of the material deposited in the channel of the stream by storm water.

## SEWERAGE.

The City Engineer and Surveyor informs me that new sewers were constructed during the year 1935 with a total mileage of 64.05 miles.

The principal sewerage schemes completed during the year include the following :—

Handsworth Wood Sewerage, Section 2, undertaken to provide for house building development in the area, to abolish dumbwells and to relieve flooding in Handsworth Wood Road.

Kings Heath Sewerage. New foul and surface water sewers provided to relieve serious flooding in the area of Kings Heath adjoining Vicarage Road and All Saints Road.

Stechford Lane, Washwood Heath. New sewers provided to relieve flooding.

Perry Barr Sewerage, Section 4. This was an extension of valley sewers to provide for house building development in a further area of Perry Barr near Aldridge Road.

The following schemes were commenced in 1935 and are now in hand :—

Quinton Sewerage, Section I, Part 1. This scheme provides for the reconstruction of the main valley sewer and the provision of sewers in various roads to take the present building developments.

Sheldon Sewerage. This is a large scheme providing for the drainage of the Sheldon area and to do away with numerous dumbwells on existing property.

With regard to the work authorised by the Birmingham Corporation (Rivers Improvement) Act, 1929, the section of the River Rea between Lawley Street and Moseley Street is now being deepened and improved under Contract 3, River Rea Improvement.

The contract for the enlargement of the first section of the Rea Main Sewer from Lawley Street to MacDonald Street is well in hand.

Year ending December, 1935.					F. W. Sewers.	S. W. Sewers.
					Lin. Yds.	Lin. Yds.
Sewers laid by Contract	.....	.....	.....	.....	9,390	4,816
Sewers laid by Direct Labour	.....	.....	.....	.....	9,401	13,324
Sewers Reconstructed	.....	.....	.....	.....	4,709	800
Sewers laid by Private Enterprise	.....	.....	.....	.....	31,024	36,926
Sewers laid outside City, <i>i.e.</i> , to drain Marston Green Cottage Homes	.....	.....	.....	.....	1,110	1,239
					55,634	57,105
Miles					31.61	32.44
Miles					64.05	

## CLOSET ACCOMMODATION AND SCAVENGING AND REFUSE DISPOSAL.

I am indebted to Mr. Codling, General Manager of the Salvage Department, for the following information.

## PROVISION OF DUSTBINS.

The Corporation possesses legal powers to require the installation of dustbins at all properties throughout the city, for the temporary storage of refuse pending its removal.

With the exception of comparatively few old properties at which dry ashpits are in use, dustbins are used for refuse storage throughout the city.

The Salvage Department operates a voluntary dustbin hire scheme, introduced twelve years ago, and this scheme continues to receive the support of property owners. At December 31st, 1935, 9,870 owners had entered the scheme, for the hire of 93,172 dustbins.



## COLLECTION OF REFUSE.

Electrically propelled vehicles have proved themselves eminently suitable for the collection of house refuse in Birmingham, and the Salvage Department operates a fleet of 144 of these vehicles, which is the largest number of this type operated by any municipality in the country. During the year the Department purchased ten new electric vehicles.

Vehicles purchased for some years past have been provided with special bodies designed to prevent the dissemination of dust during loading operations, and in December of 1935 two rear-loading vehicles, fitted with rubber moving floors, were put into operation. The use of these two vehicles will enable the Department to obtain experience in order to determine whether the moving floor vehicle possesses advantages, either from hygienic or economic standpoints, over the normal side loading type of tipping vehicle.

## DISPOSAL OF REFUSE.

Practically the whole of the house and trade refuse produced in the city is now dealt with by means of separation and incineration at the five salvage and refuse disposal works of the Department.

The refuse from various city markets is also dealt with at the main works of the Department at Montague Street, where an efficient organic plant is installed for the purpose. The material dealt with at this plant includes condemned meat, fish, offal, vegetable refuse, etc., and the refuse treated is converted into fats, feeding meals, fertilisers, etc.

## CESSPOOLS.

At December 31st, 1935, there were 631 cesspools in the city, serving 1,292 premises, receiving regular attention. During the year 44 cesspools were abolished, and 49, serving premises in the outlying districts, have been constructed. Practically all these cesspools are situated on the outskirts of the city, and schemes for the construction of sewers have been approved by the City Council, which when completed will result in a large reduction of the number of cesspools in use.

## SANITARY PANS.

The Department is regularly emptying 487 sanitary pans, none of these being attached to premises in the populous areas of the city.

## PRIVY MIDDENS.

There are 156 privy middens in the city receiving regular attention, and during the year six of these receptacles were demolished.

## SWIMMING BATHS AND POOLS.

I am informed by Mr. R. Hoggins, Chief Engineer to the Baths Department, that the following baths are maintained by the emptying and refilling process :—

*Open-air Baths.*

Cannon Hill Park  
Victoria Park (Small Heath).

*Covered Baths.*

Northwood Street  
Monument Road  
Tiverton Road

With the above exceptions where the emptying and refilling process operates in conjunction with the use of chlorine, the water of the remaining swimming baths, totalling 20, is maintained by mechanical filtration and sterilised by chlorine or chloramine.



## SANITARY INSPECTION.

The work of the general sanitary inspectors has been carried on steadily and vigorously throughout the year, and the following statement indicates the main headings under which visits were paid:—

For systematic house inspection	...	...	...	...	...	...	39,902
For housing complaints	...	...	...	...	...	...	53,250
For infectious diseases	...	...	...	...	...	...	10,312
For inspection of courts	...	...	...	...	...	...	3,566
For inspection of manure receptacles	...	...	...	...	...	...	1,236
For inspection of drainage (construction or repair)	...	...	...	...	...	...	4,420
For drain tests (smoke or water)	...	...	...	...	...	...	688
To common lodging houses	...	...	...	...	...	...	256
To houses let in lodgings	...	...	...	...	...	...	4,511
To tents, vans and sheds	...	...	...	...	...	...	142
To offensive trade premises	...	...	...	...	...	...	398
To workshops and factories, etc.	...	...	...	...	...	...	8,494
Under the Rats Order	...	...	...	...	...	...	3,339
To ice cream vendors	...	...	...	...	...	...	3,115
For miscellaneous complaints	...	...	...	...	...	...	8,628
To see owners or agents	...	...	...	...	...	...	4,213
For other purposes	...	...	...	...	...	...	17,346
Unsuccessful visits	...	...	...	...	...	...	8,585
Total visits and re-visits	...	...	...	...	...	...	172,401

The total number of dwelling houses inspected was 12,971, of which 3,895 were examined in the course of the systematic house-to-house inspection of selected streets. The remaining houses inspected were largely those in respect of which a complaint had been received. Of the total of 12,971 examined, 11,055 were found to need repairs of some kind. During the year notices were served for the following work to be done:—

Houses to be disinfected	...	...	...	...	...	...	2,181
Repairs to houses	...	...	...	...	...	...	114,764
Houses to be cleansed by owner	...	...	...	...	...	...	3,622
Houses to be cleansed by tenant	...	...	...	...	...	...	49
Houses to have better ventilation	...	...	...	...	...	...	760
Houses to have separate water supply	...	...	...	...	...	...	793
Houses to be provided with damp course	...	...	...	...	...	...	508
Water or filth to be removed from cellars	...	...	...	...	...	...	167
Spouting to be put in order	...	...	...	...	...	...	3,514
Water closets to be repaired or re-constructed	...	...	...	...	...	...	5,589
Water closets to be cleansed	...	...	...	...	...	...	1,675
Additional water closets to be provided	...	...	...	...	...	...	48
Wash houses or ashplaces to be repaired or limewashed	...	...	...	...	...	...	2,532
Soilpipes to be repaired or removed	...	...	...	...	...	...	187
Defective drains	...	...	...	...	...	...	1,469
Additional drains needed	...	...	...	...	...	...	708
Sanitary sinks to be provided	...	...	...	...	...	...	863
Sink bend pipes to be repaired	...	...	...	...	...	...	664
Yards to be paved or repaired	...	...	...	...	...	...	1,740
Accumulations of rubbish, manure, etc., to be removed	...	...	...	...	...	...	311

Internal water supply has been provided to 679 houses and 6 wash houses which previously had to rely on a tap in the yard. This work has been carried out under the provisions of the Birmingham Corporation Act, 1929, under which the Corporation bears half the approved cost of the work. The amount expended in this way during 1935 was £1,988 11s. 11d.

Closely connected with an adequate water supply inside the house is the provision of a suitable and efficient sink. Last year 863 sanitary sinks were provided and 664 sinks were put in order.

In 3,671 cases the notice related to the cleansing, in 1,280 to the painting, and in 760 to the improvement of ventilation of premises.

A large amount of work was done in improving yards and outbuildings. Notices were issued for 48 additional water closets to be provided, for 1,675 closets to be cleansed and made free from obstruction, and for 5,589 to be repaired. Repairs or additions to the drainage were required in 2,504 cases, and the improvement of wash houses or ashplaces in 2,532 instances.

A staff of 7 men is engaged in cleansing some of the worst courts in the City, together with the water closets and ashplaces situated in them, subject to an agreed charge being paid by the owners of the houses. The total number of cleansings effected during the year was 5,800, over 90 courts being dealt with weekly. In the course of this work a large number of water closets and drain traps were cleared of obstructions.

The total number of notices served during the year was 12,732, of which 8,620 were preliminary informal notices, and 4,112 were statutory notices.

The summonses taken out during the year were as follows:—

General Nuisances	...	...	...	25
Inside Water Supply	...	...	...	1
Houses let in lodgings	...	...	...	7
Excessive Smoke	...	...	...	14
Shops Acts	...	...	...	196
Rent Acts	...	...	...	3
Factory and Workshops Act (Outworkers)	...	...	...	1
Disobeying Magistrate's Order	...	...	...	2
				<hr/>
				249
				<hr/>

#### RATS AND MICE.

Throughout the year the provisions of the Rats and Mice Destruction Act have been systematically administered, special attention being paid to the matter during National Rat Week which was observed from November 4th to November 9th.

Rat Week in Birmingham was observed by a general campaign against these pests. About 2,000 handbills were distributed at cafes, food stores, warehouses, corn stores and any other premises where rats were suspected, and the occupiers were requested to make a special effort to exterminate any rats, and to keep a record of their activities.

The following is a summary of the these reports, together with information gathered by the Sanitary Inspectors:—

Premises where Rat Catchers were employed	...	...	...	...	...	57
Premises where dogs and cats are used	...	...	...	...	...	90
Premises where other constant action is being taken	...	...	...	...	...	10
Premises "Rat-proofed"	...	...	...	...	...	43
Premises where drains repaired after test	...	...	...	...	...	9
Rats known to have been destroyed	...	...	...	...	...	1,596

In addition, special steps were taken by various large industrial undertakings and Corporation Departments. The London, Midland and Scottish Railway Co., who employ seven rat-catchers, using poison, traps and dogs, trapped 10 rats, killed 2 by dogs and found 20 dead; the Great Western Railway Co. laid 340 baits, of which 120 were taken, 13 dead rats being found. The Salvage Department laid seven different varieties of poison, these baits being taken in 3,731 cases; no count of dead rats was taken, but action is being continued weekly. The Markets and Fairs Department laid 790 baits; 53 rats were killed, 300 baits were taken and 6 rats found dead. The Public Works Department carry on a constant campaign; of the 13,159 baits laid during the year, 79 per cent. were taken and 30 dead rats found; in addition, 2,137 baits were laid during Rat Week. The Birmingham Canal Navigations also took constant action during the year and many baits were taken; no rats were found dead during Rat Week.



### FACTORIES AND WORKSHOPS.

The visits paid under the Factory and Workshops Acts numbered 8,494. As a result of these visits notices were served as follows :—

Want of cleanliness	...	...	...	...	...	...	...	...	474
Want of ventilation	...	...	...	...	...	...	...	...	21
Overcrowding	...	...	...	...	...	...	...	...	0
Want of drainage of floors	...	...	...	...	...	...	...	...	1
Other nuisances	...	...	...	...	...	...	...	...	128
Insufficient sanitary accommodation	...	...	...	...	...	...	...	...	34
Unsuitable or defective sanitary accommodation	...	...	...	...	...	...	...	...	209
Sanitary accommodation not separate for the sexes	...	...	...	...	...	...	...	...	31
Illegal occupation of underground bakehouse	...	...	...	...	...	...	...	...	0

Arrangements are in force co-ordinating the work of the Public Health Department in some directions with that of the office of H.M. Superintending Inspector of Factories for the Midland area. This has related chiefly to insufficient or defective sanitary accommodation, or to the investigation of nuisances arising in factories and affecting neighbouring premises. This form of co-operation has continued to prove of great value, preventing overlapping, duplication of action or on the other hand failure to take action, and at the same time removing risks of misunderstanding between two public departments engaged on closely allied work.

The number of workshops on the register is 2,865 and the visits for inspection paid to them numbered 2,817. In addition to these visits 2,134 were made to factories, 146 to workplaces, 2,577 to food preparation premises and 820 to out-workers premises.

### SMOKE ABATEMENT.

The following particulars have been prepared by Mr. G. W. Farquharson, Senior Smoke Inspector :—

The geographical position of the city, the numerous manufacturing and trade processes carried on, and the adaptability of the legislation relating to smoke emissions, are three factors which stand in close relationship when the question of Smoke Abatement is considered.

#### *The geographical position.*

Birmingham is built on several hills with the corresponding valleys. The valleys tend to act as reservoirs, and it is here that the combination of domestic and industrial smoke haze is so persistent and regular.

#### *The manufacturing and trade processes.*

Known as the city of a thousand trades, Birmingham is essentially an industrial city. Most of the manufacturing and trade processes have some form of heat unit plants, such as boilers, metallurgical furnaces, kilns, ovens, etc., and use coal as fuel, with the result that nearly all of the industrial chimneys within the area are potential smoke producers.

#### *The legislation governing smoke emissions.*

The Birmingham Corporation Consolidation Act, 1883, Section 30, and the Birmingham Corporation Act, 1922, Section 79, together with the City of Birmingham Bye-law made under Section 2 of the Public Health (Smoke Abatement) Act, 1926, are the principal enactments used in dealing with excessive smoke emissions.

#### *Industrial Smoke.*

Continuous observations are always necessary with steam generators where load and conditions are of a variable nature. A boiler like any other machine is designed for a certain amount of useful work in the form of evaporation, but it must not be overloaded, otherwise considerable smoke nuisance is caused. Several boiler plants in the area have been found to be working under heavy and fluctuating loads. These boilers, when on peak loads, are being forced much beyond their working capacity and the only solution to these difficulties is to reduce the load or increase the boiler plant.



### *Metallurgical Furnaces.*

A large amount of research work has been carried out in order to determine the best practical methods of obviating smoke nuisances caused by metallurgical furnaces without detriment to the material being manufactured, and credit must be given to some of the Birmingham manufacturers who have done pioneer work in this direction and have found a definite solution to the difficulty. Unfortunately there are still a number of these heat treatment furnaces working in the area which are so constructed that they offend every law of combustion, and in their present state, using coal as fuel, it is very difficult for the furnace operators to control the emissions of smoke.

### *Grit Emissions from Industrial Plants.*

The demand for cheap power and the necessity of reducing fuel costs have caused engineers to study the combustion of low grade coal as fuel. To burn a low grade coal efficiently a high draught is necessary and unless certain measures are taken many of the particles of the low grade fuel are carried up the chimney by the velocity of the flue gases, and pass into the atmosphere in the form of grit and gritty particles.

### *Trade Refuse Burning.*

Considerable nuisance has been observed from the indiscriminate burning of trade refuse. It is most essential in the efforts of health and cleanliness that refuse should be disposed of and not allowed to accumulate, but burning should not be carried out to the annoyance and discomfort of people in the immediate vicinity. If refuse must be disposed of by burning, proper and suitable facilities should be provided for the purpose.

The following table sets out particulars of observations on chimneys other than those of private dwelling houses.

	1935	1934	1933	1932	1931
Total number of observations .....	5,096	5,127	5,784	5,135	5,597
Reports to Public Health Committee on Excessive Smoke Emissions.					
From Boiler Plants .....	104	71	88	77	115
From Boilers and Furnaces .....	12	8	12	8	11
From Metallurgical Furnaces .....	28	22	24	29	29
Excessive Grit Emissions .....	3	[1	—	2	1
Total number of excessive emissions .....	147	102	124	116	156
Number of Prosecutions .....	14	4	4	6	18
Number of Convictions .....	14	4	4	6	18

Fourteen Preliminary Notices have been served under the Public Health Act, 1875, and the Public Health (Smoke Abatement) Act, 1926. In two cases it was necessary to serve Statutory Notices, and in one a magistrate's order was obtained before a nuisance of soot emissions from a metallurgical furnace was abated.

## OFFENSIVE TRADES.

The offensive trades carried on in the City are as follows :—

Tripe boiler	...	...	...	...	34
Rag and bone dealer	...	...	...	...	21
Blood boiler	...	...	...	...	1
Bone boiler	...	...	...	...	1
Fellmonger	...	...	...	...	2
Tanner	...	...	...	...	1
Soap boiler	...	...	...	...	2
Fat extractor	...	...	...	...	1
Gut Scraper	...	...	...	...	3

The number of visits paid to premises where offensive trades were carried on during the year was 398. Eleven preliminary notices and one statutory notice were served and three letters were sent during the year, while certain defects were also remedied on the verbal request of the Inspector. No prosecutions were found to be necessary and the businesses generally were conducted in a satisfactory manner.

Fifteen tripe boilers and three soap boilers ceased business during 1935, and two of the premises were subsequently re-registered for the trade of tripe boiling. One rag and bone dealer was added to the register, while two rag and bone premises, previously covered by separate registrations, underwent certain structural alterations which rendered one registration only necessary for the future.

## COMMON LODGING HOUSES.

At the end of the year there were 26 registered Common Lodging Houses in the City, affording accommodation for 1,837 males and 71 females.

It is satisfactory to note that the unusually high standard of cleanliness and sanitation established in these premises in Birmingham continues to be maintained.

In no instances was it found necessary to resort to legal proceedings to remedy contraventions of the regulations governing the management of these houses.

No. of houses on register (for males only)	...	...	...	...	24
No. of houses on register (for females only)	...	...	...	...	2
No. of lodgers allowed	...	...	...	...	1,908
No. of day visits	...	...	...	...	242
No. of night visits	...	...	...	...	5
No. of Special Visits	...	...	...	...	7
Defects found	...	...	...	...	64
No. of summonses	...	...	...	...	—

## HOUSES LET IN LODGINGS.

At the end of the year there were 319 houses let in lodgings on the Register, containing 2,048 rooms.

They were let as follows :—

No. of rooms let as single rooms	...	...	...	...	804
No. of lets of two or more rooms together	...	...	...	...	497
Certified accommodation	...	...	...	...	4,539 persons

The visits and re-visits paid during the year numbered 4,511, an average of 14 per house.



Notices were served for the following matters :—

Repairs ordered	...	...	...	...	...	...	2,774
Overcrowding	...	...	...	...	...	...	14
Cleansing required	...	...	...	...	...	...	187
Provision for cooking	...	...	...	...	...	...	120
Provision for food storage	...	...	...	...	...	...	231
Fire extinguishers needed	...	...	...	...	...	...	180
Lighting on stairs	...	...	...	...	...	...	118
Water supply	...	...	...	...	...	...	46
Other defects	...	...	...	...	...	...	172
Summonses issued for non-compliance with Bye-laws	...	...	...	...	...	...	7

Despite the steady application of the bye-laws relating to houses let in lodgings, the standard of accommodation continues to be of very poor quality in a large number, and the evil of subletting by persons unable or unwilling to live up to their responsibilities as landlords continues to be a serious factor in the housing difficulties of this unfortunate section of the community.

#### TENTS, VANS, AND SHEDS.

The number of visits paid to these by the inspectors was 142. In a number of cases particulars were referred to the City Surveyor with a view to action under the Birmingham Corporation (General Powers) Act, 1929.

#### CANAL BOATS.

During the year 1935 the number of boats inspected on the canals within the City area was 1,107.

The 1,107 boats inspected were registered for the accommodation of 3,332½ persons, and when inspected were found to be carrying 1,376 men, 717 women, and 677 children, a total of 2,770 persons, represented in terms of adults as 2,431.5.

The following table shows the number of boats inspected during the last five years, giving the number of persons whom the boats were registered to accommodate and the actual number of occupants at the time of inspection :—

Year.	No. of boats inspected.	Registered to carry (adults).	Actually occupied by :			Total occupying	Equivalent to adults.
			Men.	Women.	Children.		
1931	1,131	3,599	1,359	845	737	2,941	2,572.5
1932	1,147	3,558	1,498	766	655	2,919	2,591.5
1933	1,147	3,520	1,467	824	725	3,016	2,653.5
1934	1,143	3,448	1,410	817	711	2,938	2,582.5
1935	1,107	3,332.5	1,376	717	677	2,770	2,431.5

Of the 1,107 boats inspected during the year it was found that 1,004, or 90.7 per cent. were in good condition and conforming with the Acts and Regulations, while in 103, or 9.3 per cent. of the total various contraventions were found. These are classified thus :—

Boats with one contravention each	...	22 making total contraventions	...	...	22
Boats with two contraventions each	...	56 making total contraventions	...	...	112
Boats with three contraventions each	...	18 making total contraventions	...	...	54
Boats with four contraventions each	...	7 making total contraventions	...	...	28
Totals		103			216

Complaint Notes were duly served on the owners in all cases, 103 Complaint Notes were issued during 1935, and 36 were brought forward from 1934. 116 Notices were complied with during the year, leaving an outstanding balance of 23.

During the year certificates were returned by owners signed by the various Canal Boat Inspectors, showing that 239 complaints had been remedied.



The following table shows the number and character of contraventions found and remedied during the year :—

Contraventions referring to:—	Outstanding and brought forward from 1934.	Found during 1935.	Remedied during 1935.	Carried forward to 1936
Cabins requiring repairs ... ..	31	62	77	16
Cabins requiring painting ... ..	27	70	81	16
Cabins leaking ... ..	2	20	19	3
Requiring lettering ... ..	1	30	29	2
Registration ... ..	—	19	14	5
Not producing certificates ... ..	—	4	4	—
Dirty cabins ... ..	—	—	—	—
Overcrowding ... ..	3	6	9	—
Separation of sexes ... ..	1	3	4	—
Water vessels ... ..	—	2	2	—
No Pumps ... ..	—	—	—	—
Ventilation ... ..	—	—	—	—
No certificate identifying owner of boat ... ..	—	—	—	—
Cabins not habitable ... ..	—	—	—	—
Totals	65	216	239	42

It has not been necessary during the year to take any Court proceedings under the above Acts or the Canal Boat Amendment Regulations, 1925.

#### INFECTIOUS DISEASE.

No cases of infectious disease have occurred during the year.

#### REGISTRATION OF BOATS.

There was a net increase of 22 boats registered at Birmingham during the year 1935, thus bringing the total up to 589.

The 589 boats on the register are classified as follows. It will be noticed that steam boats continue to remain at three :—

Ordinary boats ... ..	497
Motor boats ... ..	89
Steam boats ... ..	3
	<hr/>
	589

#### SHOPS ACTS, 1912-34.

Four Inspectors are employed to carry out the work of inspection in relation to the above Acts, and below is a summary of their work for the year 1935 :—

##### Number of Visits paid :

General Inspection—Visits ... ..	11,915
General Inspection—Re-visits ... ..	3,758
Visits re Fruiterers' Register ... ..	778
Special Visits regarding—	
Closing of shops, 1928 Act ... ..	599
Half-day closing, 1912 Act ... ..	672
Appointments re 1934 Act ... ..	295
No. of streets patrolled by day, 1912 Act ... ..	1,246
No. of streets patrolled by night, 1928 Act ... ..	1,430
Sunday Patrol, 1930 Act ... ..	233
Patrol (Butchers' Closing Order, 1921) ... ..	333
Total Visits	<hr/> 21,259

## Offences Reported, etc.

Early Closing Notices not exhibited	...	...	...	...	...	1,505
Young Persons Notice not exhibited, Form H.	...	...	...	...	...	1,328
Young Persons Notice not exhibited, Form J.	...	...	...	...	...	8
Young Persons Notice not exhibited, Form F.	...	...	...	...	...	1,322
Assistants' Half Holiday Notice not exhibited	...	...	...	...	...	1,319
Not providing seats for Shop Assistants	...	...	...	...	...	121
Not exhibiting Form K. (seating accommodation)	...	...	...	...	...	1,158
No. of shops where overtime is carried on, Form G.	...	...	...	...	...	2
No. of shops where averaging of hours is carried on, Form A.	...	...	...	...	...	0
Exempted Trade Notice not exhibited	...	...	...	...	...	639
Not Closing to time. Evenings	...	...	...	...	...	276
Not Closing to time. Half-day.	...	...	...	...	...	32
Opening on Sundays. (Hairdressers)	...	...	...	...	...	7
To provide W.C. accommodation	...	...	...	...	...	95
To provide suitable ventilation	...	...	...	...	...	10
To provide suitable heating	...	...	...	...	...	13
To provide suitable accommodation for meals	...	...	...	...	...	73
To provide washing facilities	...	...	...	...	...	118
Mess rooms to be cleansed	...	...	...	...	...	83
Nuisances found	...	...	...	...	...	246
Summonses issued	...	...	...	...	...	195
Summonses withdrawn	...	...	...	...	...	1
Summonses dismissed	...	...	...	...	...	0

## MORTUARY—SUMMER LANE.

In the early part of 1930, Mr. and Mrs. T. Sidney Walker indicated that they were proposing to build a mortuary with accommodation for three coffins at the corner of Summer Lane and Henrietta Street, together with a house for the caretaker, and that, if over a period of three years it was found to fulfil a useful purpose, they proposed to offer it to the City. In March, 1930, this proposal was considered by the General Purposes Committee, who expressed their appreciation of Mr. and Mrs. Walker's public-spirited proposal, and asked the Public Health Committee to co-operate in the scheme.

In March, 1934, three years had elapsed since the building was first opened, and experience had proved that the provision was appreciated, and that, with the passage of time, it would be increasingly used as a resting place to which the dead could be brought and remain until time for burial, instead of being kept in small houses with living relatives. The Public Health Committee, on behalf of the Council, therefore assumed responsibility for the future maintenance of the building on April 1st of that year. During the year 1935 the building was used for the temporary reception of the dead on 45 occasions.



## IV. HOUSING.

## NEW HOUSES.

Data received from the City Engineer and Surveyor show that 985 houses were built by the Municipality and 6,265 by private enterprise during 1935. The houses built by the Corporation are for the working class, while those built privately have generally been of a larger type. The houses built year by year since 1920 are shown in the subjoined statement.

		No. of houses erected by private enterprise.	Corporation houses.	Total.
1920	.....	244	553	797
1921	.....	426	970	1,396
1922	.....	382	810	1,192
1923	.....	556	1,621	2,177
1924	.....	1,201	1,992	3,193
1925	.....	1,774	3,215	4,989
1926	.....	1,775	5,159	6,934
1927	.....	2,445	4,007	6,452
1928	.....	1,487	3,505	4,992
1929	.....	2,456	4,359	6,815
1930	.....	1,738	6,715	8,453
1931	.....	1,983	3,919	5,902
1932	.....	2,159	1,737	3,896
1933	.....	3,028	2,029	5,057
1934	.....	4,226	837	5,063
1935	.....	6,265	985	7,250
Total	.....	32,145	42,413	74,558

The wards in which new houses have been built in 1935 are indicated below :—

	Ward.	Houses erected by private enterprise.	Corporation Houses.	Total.
Central Wards.	St. Paul's	—	—	—
	St. Mary's	—	—	—
	Duddeston and Nechells	1	16	17
	St. Bartholomew's	—	26	26
	St. Martin's and Deritend	—	—	—
	Market Hall	—	—	—
	Ladywood	—	—	—
	Total Central Wards	1	42	43
Middle Ring.	Lozells	—	—	—
	Aston	—	—	—
	Washwood Heath	235	8	243
	Saltley	5	—	5
	Small Heath	—	—	—
	Sparkbrook	—	—	—
	Balsall Heath	—	—	—
	Edgbaston	55	—	55
	Rotton Park	12	—	12
	All Saints'	—	28	28
	Total Middle Ring	307	36	343

	Ward.	Houses erected by private enterprise.	Corporation Houses.	Total.
Outer Ring.	Soho	—	—	—
	Sandwell	74	—	74
	Handsworth	134	—	134
	Perry Barr	1,805	81	1,886
	Erdington	47	79	126
	Gravelly Hill	201	52	253
	Bromford	370	13	383
	Stechford	290	87	377
	Yardley	294	326	620
	Acock's Green	208	—	208
	Hall Green	194	—	194
	Sparkhill	54	—	54
	Moseley and King's Heath	273	—	273
	Selly Oak	377	—	377
	King's Norton	437	216	653
	Northfield	687	40	727
	Harborne	512	13	525
Total Outer Ring		5,957	907	6,864
Grand Total		6,265	985	7,250

The following statement shows the number of new houses built in the three groups of wards since 1920:—

Groups of Wards.	By private enterprise.	Houses erected Corporation.	Total.
Central Wards	37	413	450
Middle Ring	2,894	5,960	8,854
Outer Ring	29,214	36,040	65,254
City	32,145	42,413	74,558

#### No. OF EXISTING HOUSES.

From a return prepared by the Rates Department of the City Treasurer's Department, it appears that on April 1st, 1936, there were 247,713 dwelling houses and 18,243 shops with dwelling houses attached in the City. Some idea of the relative size of the dwelling houses may be gathered from the assessments for rating purposes which were as follows:—

Assessment.	No. of dwelling houses.
Up to and including £5	4,641
Over £5 and up to £10	115,775
Over £10 and up to £15	56,236
Over £15 and up to £20	38,144
Over £20 and up to £50	29,510
Over £50 and up to £100	3,091
Over £100	316



## ACTION IN RESPECT OF INDIVIDUAL DWELLING HOUSES.

For detailed information as to the nature of the defects disclosed by inspection, reference should be made to page 30. The statement below, set out in the form required by the Ministry of Health, is in respect of the number of houses dealt with under the different statutory provisions relating to dwelling houses.

## 1. INSPECTION OF DWELLING-HOUSES DURING THE YEAR :—

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) .....	12,971
(b) Number of inspections made for the purpose .....	103,208
(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidation Regulations, 1925 .....	3,895
(b) Number of inspections made for the purpose .....	39,902
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation .....	4,281
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation .....	11,055

## 2. REMEDY OF DEFECTS DURING THE YEAR WITHOUT SERVICE OF FORMAL NOTICES :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers .....	7,519
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## 3. ACTION UNDER STATUTORY POWERS DURING THE YEAR :—

## A.—Proceedings under sections 17, 18 and 23 of the Housing Act, 1930 :

(1) Number of dwelling-houses in respect of which notices were served requiring repairs .....	1,134
(2) Number of dwelling-houses which were rendered fit after service of formal notices :	
(a) By owners .....	1,182
(b) By local authority in default of owners .....	52

## B.—Proceedings under Public Health Acts :—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied .....	2,133
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—	
(a) By owners .....	1,769
(b) By local authority in default of owners .....	34

## C.—Proceedings under sections 19 and 21 of the Housing Act, 1930 :

(1) Number of dwelling-houses in respect of which Demolition Orders were made .....	401
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders .....	479
(3) Number of dwelling-houses in respect of which official Representations were made .....	758
(4) Number of dwelling-houses in respect of which undertakings under Sec. 19 (2) were accepted :	
(a) Not to use in future for human habitation .....	43
(b) To carry out works to render fit for human habitation .....	11
(5) Number of dwelling-houses rendered fit for human habitation in pursuance of undertakings .....	8

## D.—Proceedings under section 20 of the Housing Act, 1930 :—

(1) Number of parts of building or underground rooms in respect of which Closing Orders were made .....	8
(2) Number of parts of buildings or underground rooms in respect of which Closing Orders were determined, the part of building or room having been rendered fit .....	1
(3) Number of parts of buildings or separate tenements in respect of which official Representations were made .....	17

## ACTION IN RESPECT OF CLEARANCE AREAS.

The following table shows briefly, as at December 31st, 1935, the position with regard to Orders made in respect of Clearance Areas.

TITLE OF ORDER.	Date of Representation.	Date of making of Order.	Date of Confirmation.	Number of houses in Clearance Area.	Number of persons to be dispossessed
Sandy Lane C. O.	4/1/35	2/4/35	Confirmation orders	38	160
Meriden Street C. O.	7/1/35	2/4/35	not received during 1935	14	63
Cumberland Street C. O.	7/1/35	5/2/35	28/9/35	12	42
Tennant Street C. O.	7/1/35	5/2/35	28/9/35	25	98
Little Bow Street C. O.	7/1/35	5/2/35	28/9/35	7	20
Bow Street C. O.	7/1/35	5/2/35	28/9/35	26	122
Colehill Street C. O., No. 1	8/1/35	5/2/35	28/9/35	9	28
Colehill Street C. O., No. 2	8/1/35	5/2/35	28/9/35	8	36
Colehill Street C. O., No. 3	8/1/35	5/2/35	28/9/35	18	105
Colehill Street C. O., No. 4	8/1/35	5/2/35	28/9/35	9	35
Old Cross Street C. O.	8/1/35	5/2/35	28/9/35	16	79
Market Street C. O.	8/1/35	5/2/35	28/9/35	12	49
Doe Street C. O.	8/1/35	5/2/35	28/9/35	13	55
Montague Street C. O., No. 1	9/5/35	4/6/35	Confirmation orders	20	80
Montague Street C. O., No. 2	9/5/35	4/6/35	not received during 1935	12	52
Derby Street C. O., No. 1	9/5/35	4/6/35	"	6	43
Derby Street C. O., No. 2	9/5/35	4/6/35	"	4	11
Great Barr Street C. O., No. 1	9/5/35	4/6/35	"	8	22
Great Barr Street C. O., No. 2	9/5/35	4/6/35	"	4	14
Great Barr Street C. O., No. 3	9/5/35	4/6/35	"	11	22
Great Barr Street C. O., No. 4	9/5/35	4/6/35	"	29	84
Belmont Passage C. O.	9/5/35	4/6/35	"	40	149
Lawley Street C. O.	9/5/35	4/6/35	"	9	23
Fawdry Street C. O.	9/5/35	4/6/35	"	16	68
Little Barr Street C. O.	9/5/35	4/6/35	"	18	74
Palmer Street C. O.	9/5/35	4/6/35	"	64	262
Barr Street, Hockley, C. O.	9/5/35	4/6/35	"	8	25
Cecil Street C. O., No. 1	11/5/35	10/12/35	"	30	108
Carver Street C. O., No. 1	20/5/35	23/7/35	"	18	61
Carver Street C. O., No. 2	20/5/35	23/7/35	"	36	129
Pope Street C. O., No. 1	20/5/35	23/7/35	"	72	291
Pope Street C. O., No. 2	20/5/35	23/7/35	"	8	36
Warstone Lane C. O., No. 1	20/5/35	23/7/35	"	9	33
Warstone Lane C. O., No. 2	20/5/35	23/7/35	"	11	43
Warstone Lane C. O., No. 3	20/5/35	23/7/35	"	137	543
New Bartholomew Street C. O., No. 1	23/5/35	23/7/35	"	7	26
New Bartholomew Street C. O., No. 2	23/5/35	23/7/35	"	11	40
Ormond Street C. O.	23/5/35	23/7/35	"	46	226
Moorsom Street C. O.	23/5/35	23/7/35	"	32	144
Bath Street C. O.	16/7/35	10/12/35	"	39	144
Shadwell Street C. O.	16/7/35	10/12/35	"	6	21
Nelson Street C. O.	12/11/35	10/12/35	"	28	109
Sherbourne Road C. O.	12/11/35	10/12/35	"	11	39
Cheapside C. O.	12/11/35	10/12/35	"	137	543
Cecil Street C. O., No. 2	12/11/35	10/12/35	"	10	39
Moseley Street C. O.	12/11/35	Considered during 1936	"	18	68
Park Road, Hockley, C. O.	28/11/35	"	"	6	27
Regent Place, St. Paul's, C. O.	28/11/35	"	"	8	28
Harding Street C. O.	28/11/35	"	"	9	31
Charles Henry Street C. O.	21/12/35	"	"	50	206
Lower Darwin Street C. O.	21/12/35	"	"	38	164
Lombard Street C. O.	21/12/35	"	"	9	45
TOTAL during 1935 : 52 Areas				1,242	4,955
TOTAL to December 31, 1934 49 Areas				1,723	7,325
GRAND TOTAL to December 31, 1935 101 Areas				2,965	12,280



As at the 31st December official representations in respect of 5,210 houses had been made since the passing of the Housing Act, 1930, 2,245 of these being in respect of individual houses or of blocks of houses not large enough to merit area action. Re-housing operations in respect of areas reported on in the annual report for 1934, have, in a number of cases, been completed. In others full completion is necessarily delayed by the need for individual consideration of every affected tenant, with a view to offering accommodation in a district likely to prove suitable so as to minimise as much as possible any hardship which might arise out of an enforced change of residence. One result of this is that in many cases the demolition of blocks of houses has to be held up on account of difficulty in re-housing individual families. Consequently the number of demolitions actually effected does not afford an accurate index to progress in connection with clearance. As soon as these difficult cases are re-housed, a Demolition Order will automatically follow and any apparent lag will be made up.

In general it has been deemed advisable to represent any considerable aggregation of unfit property as a Clearance Area under Section 1 of the Housing Act, but small groups or single houses have been represented individually under Section 19, parts of buildings being dealt with by Closing Orders under Section 20. No particular difficulties have been encountered under these latter Sections and in no case during the year has there been an appeal to the County Court. In a very few instances it was suggested that the houses subject to representation were fit for habitation, but in most cases the owners, on taking expert advice, accepted the contention that the houses themselves were unfit for habitation and either agreed to the making of orders or submitted schemes with the object of rendering fit for habitation some, if not all, of the houses affected.

No particular difficulties have been encountered in respect of areas affected by Clearance Orders. Even prior to the passing of the Housing Act, 1935, it was the practice in Birmingham to forward to objectors the main grounds upon which representations were based. This course of action has now become obligatory and, as no change of practice has resulted, no undue delay has arisen in consequence of the enactment of the 1935 Act.

Many schemes for the re-modelling and re-conditioning of small blocks of property within Clearance Areas were submitted by owners at the time of the various Public Local Inquiries, and in a small proportion of cases houses have been excluded from the Confirming Orders upon the understanding that action would follow immediately under Section 19 of the Housing Act, 1930. No house originally included within an officially represented Clearance Area has, as yet, been rendered fit for human habitation in pursuance of such a scheme. This does not mean that schemes were put forward frivolously but it does seem to imply that, on careful and exhaustive examination of their particular case, the owners concerned have been convinced that under the circumstances the proposals were unsound economically. In a few other cases houses were excluded from areas on undertakings by the owners not again to permit the houses to be used for human habitation.

Clearance operations generally have been in respect of properties situated in a ring from one-half to one mile from the City centre, and have mostly comprised properties erected between the years 1800 and 1840, during which period a large number of badly arranged back to back houses were built, in many cases at a density of over 100 houses to the acre.

The Housing Act, 1935, received the Royal assent on the 2nd August, 1935, and was immediately put into operation. The steps taken in connection with Sections 1-11 relating to overcrowding are set out below. An important provision of this Act is the power now given to Local Authorities to proceed with the re-development of overcrowded areas of substantial size, where these areas comprise working-class houses of a type well below standard, and where it is proposed to carry out re-housing operations on the site. The Authority are at the present time examining this point and hope to be able to submit proposals during 1936.

Two important amendments relate to alterations in the basis of compensation. In cases where land is acquired by the Authority under Compulsory Purchase Orders made in respect of Clearance Areas, the compensation is now based on full site value, unaffected by any reduction factor such as operated before the passing of this Act. Provision is further made for a payment in respect of houses which, although falling within Clearance Areas, are found to have been well maintained.

In cases where owners may not wish to incur expenditure on account of the suspected imminence of schemes leading to demolition, provision is made in Section 55 of the Act for a Certificate of Indemnity, provided that an agreed scheme of works or reconstruction and improvement is carried out to the satisfaction of the Authority. As the cost of such works in houses which are obviously likely to fall within the scope of slum clearance operations is necessarily high, it is possible that there may not be any great number of applications under this Section.



Before the passing of the 1935 Act, Local Authorities were not allowed to deal with properties owned by them by means of Clearance Orders. This prohibition has now been removed except in those cases where the Authority has purchased land with an obligation to rehouse.

It appears that it will now be possible, in a certain number of cases, to deal with Caravan Encampments of long standing, as the 1935 Act permits caravans which have remained stationary for two years or more to be treated in the same way as dwellings so far as action in respect of clearance areas is concerned. It will, however, only be possible to exercise this new power in a limited number of cases; and many of the most undesirable conditions relate to caravans in encampments where constant change is taking place.

During the year, it became evident that, owing to difficulties concerning the supply of labour in building operations, progress in connection with the provision of houses to replace those destroyed in consequence of clearance operations would fall below expectations. In order to meet the situation, it was decided that a Standing Joint Housing Conference should be constituted, under the Chairmanship of the Lord Mayor, for the purpose of facilitating and expediting efforts in connection with housing matters, the Conference comprising members of the Committees mainly concerned, viz., the Finance Committee, Public Works and Town Planning Committee, Estates Committee and the Public Health Committee. This conference has carried out extensive investigations and reported early in 1936. Any appropriate references to this will be made in my next report.

#### OVERCROWDING.

Of the total number of cases of overcrowding reported by the Health Visitors, Tuberculosis Visitors and Sanitary Inspectors (1,117), 567 were referred to the Estates Department, as compared with 646 and 725 in 1934 and 1933 respectively.

Of the 567 cases thus referred, 296 received assistance as follows from the Estates Department:

Cases assisted, 296:—

(1) Corporation house or flat allocated or to be allocated when the accommodation is available	104
(2) Pre-war accommodation provided or to be provided	52
(3) Privately owned occupation do.	27
(4) Exchange house arranged, or being arranged	104
(5) Alternative accommodation being provided	9

In 252 cases the conditions were not such as to allow of assistance, while 19 were still under review at the end of the year.

A detailed analysis of the accommodation occupied by the 1,117 cases of overcrowding reported during the year is given in the following table:—

#### SLEEPING ACCOMMODATION OF CASES REPORTED.

1935.

No. of occupants.	Combined bedroom and living room.	One bedroom.	Two bedrooms.	Three bedrooms
2	9	18	7	1
3	42	66	20	5
4	30	108	49	6
5	15	76	77	6
6	6	53	86	7
7	2	41	77	11
8	—	19	89	11
9	—	—	85	8
10	—	—	29	13
11	—	—	27	2
12	—	—	13	1
13	—	—	—	2
14	—	—	—	—
	104	381	559	73



It will be noted that in the houses consisting of a combined bedroom and sitting room only, there were 53 cases where 4 or more persons slept in that room.

In the case of one-bedroomed houses, in 189 instances there were 5—8 persons sleeping in that bedroom.

In the two-bedroomed houses there were 69 houses in which there was an average of five or more persons occupying each bedroom.

A number of the tuberculosis cases were referred to the Estates Department on account of the patient's ill-health and were not necessarily living in overcrowded conditions.

#### OVERCROWDING SURVEY.

The overcrowding survey of the City required under Section 1 (1) of the Housing Act, 1935, was carried out within a period of three months, viz., between December 9th, 1935 and March 7th, 1936.

For that purpose a temporary staff of sixty enumerators, 10 (later 14) women clerks, ten boys to assist the clerks and 10 boys to act as measuring assistants to inspectors, was appointed; one senior clerk and 10 assistant sanitary inspectors (for  $7\frac{1}{2}$  weeks increased to 20) were also transferred from the permanent staff of the Department.

The procedure outlined by the Ministry of Health was followed. This consisted of a preliminary visit by enumerators, and a second visit by an inspector where there was *prima facie* evidence of overcrowding collected by the enumerator. A total of 214,157 dwelling-houses, containing 222,647 families, were visited in relation to the survey, and the opportunity was taken of determining certain other particulars: the number of back-to-back houses, the number of houses without an internal water supply, and the number without a separate water closet.

A comprehensive report has been prepared and submitted to the several Committees concerned, with a view to the preparation by them, and their joint submission to the City Council and the Ministry of Health of a programme of proposals for remedying the overcrowding revealed by the survey. As the report is still with the Committees concerned pending the submission of such report, it will not be appropriate to include particulars in the present annual report. They will therefore be detailed in the annual report for 1936, as is in fact appropriate to the period covered by the greater part of the survey.

## V. INSPECTION AND SUPERVISION OF FOOD.

### FOOD PREMISES.

Periodical inspections of the smaller retail food premises are carried out by the Sanitary Inspectors of the Public Health Department, while the larger wholesale premises are under the supervision of the Veterinary Department. Reference to the latter group will be found elsewhere in the report.

The smaller premises and food shops are reviewed in the light of Section 72 of the Public Health Act, 1925, and particular attention is paid to general cleanliness and to the immediate removal of refuse.

The survey of eating houses in the centre of the City, commenced in 1934, was brought to completion in 1935, a total of 120 such premises having been inspected. The survey related to the conditions prevailing in the kitchens of these premises, with particular reference to the maintenance of a reasonably low temperature, provision for the storage of food stuffs under cover, of means for the efficient cleansing and sterilising of utensils and of facilities for personal ablutions for the kitchen staffs. Although the general standard was found to be satisfactory a number of requirements was noted and no difficulty was experienced in having these carried into effect by the persons responsible.

The Birmingham Corporation Act, 1935, received the Royal Assent this year but Section 54, which provides for the registration as "eating houses" of premises used mainly or substantially for the provision of food to members of the public for consumption on the premises, did not become operative until 1st January, 1936.

### ICE CREAM.

In the early summer of each year a special tour of inspection is made to all known ice-cream premises.

The practice of installing a conservatoire, often supplied by one of the large ice-cream manufacturers, and of retailing wrapped ice-cream manufactured in up-to-date plant under hygienic conditions is happily on the increase among small shopkeepers.

The registration of premises used for the manufacture or sale of ice-cream, and of persons trading as manufacturers or vendors of, or merchants or dealers in ice-cream is required by Section 54 of the Birmingham Corporation Act, 1935, but this Section, as stated previously, did not become operative until 1st January, 1936.

### MILK SUPPLY.

The bulk of the City milk supply comes from within a radius of 50 miles of Birmingham, but in times of winter shortage accommodation milk may come from as far afield as Scotland and Ireland. The quantity of milk produced within the City boundary continues to diminish.

### MILK (Special Designations) ORDER 1923.

The number of dealers in the City licensed to sell designated milks is shown in the following table.

The number of samples of "Certified", "Grade A (Tuberculin Tested)" and "Grade A" milks taken during the year, including samples for the Ministry of Health, amounted to 263 and the percentage of these found to be below the required bacteriological standard was 24.5, 26.1 and 21.7 respectively. The bulk of this milk is produced outside the City area.



## NUMBERS OF LICENCES ISSUED.

	1934	1935
Producers of Certified Milk	1	1
Dealers in Certified Milk	13	14
Dealers in Grade A. (T.T.) Milk	37	28
Producers of Grade A. Milk	10	17*
Dealers in Grade A. Milk	95	81
Producers of Grade A. Pasteurised Milk	3	2**
Dealers in Grade A. Pasteurised Milk	8	7
Producers of Pasteurised Milk	21	22
Dealers in Pasteurised Milk	113	141
Supplementary licences—		
Certified	4	3
Grade A. (T.T.)	1	5
Grade A.	14	14
Pasteurised	7	7
	<hr/> 327	<hr/> 342

\* The Milk Marketing Board's Accredited Milk Scheme, which came into operation on 1st January, 1935, resulted in a small increase only in the number of applicants for licences to produce "Grade A" milk.

\*\* The holder of one of the licences to produce "Grade A Pasteurised" milk relinquished this during the year in favour of a licence to bottle unheated "Grade A" milk.

It will be remembered that some years ago an arrangement was made with the Worcestershire County Council for the periodical sampling of "Grade A" milk from some half dozen producers who were supplying dairymen in Birmingham. Shortly after the commencement of the Accredited Milk Scheme the Public Health Committee was approached by the Worcestershire County Council with an enquiry as to whether this scheme could be extended to allow of the sampling of "Grade A" milk from 42 producers making consignments to 12 dairy firms in the City. It was found that this additional sampling would necessitate the services of one of the assistant sanitary inspectors for one half day in each week, and would also result in increased laboratory work to the extent of 200 samples per annum. An agreement for the carrying out of this sampling was made upon a suitable financial basis for an experimental period of 12 months.

About 80 per cent. of the City milk supply is subjected to some form of heat treatment. Although there is still a large sale for sterilized milk the number of licensed "positive holder" or "batch" pasteurising plants remains the same, and the demand for pasteurised milk continues steadily to increase, such increasing demand being reflected in the number of dealers' licences for this type of milk issued in 1935 as against 1934. These pasteurising plants are now under weekly supervision by the dairy inspectors, and this has ensured a continuance of the satisfactory operation of the plants while doing away with the necessity for numerous "run-through" samples, as hitherto.

The total number of samples taken for bacteriological examination during the year was 577, including 47 samples for the Ministry of Health.

24 samples of raw undesignated milk were taken during 1935, and of these 2 contained over 200,000 bacteria per c.c. and one contained over 100,000 per c.c.

266 samples were taken of milk which had been pasteurised by the holder process and 7 of these had a count of over 100,000 bacteria per c.c., while a further 17 had a count of over 30,000 bacteria per c.c. These results show a general improvement on those of 1934.

## MILK AND DAIRIES ORDER, 1926.

All matters pertaining to dairies come within the control of the Public Health Committee; matters relating to cows and cowsheds come under the Markets and Fairs Committee acting through the City Veterinary Department. In December, 1934 two Dairy Inspectors were appointed specifically to undertake the supervision of dairy premises and plant throughout the City.

The whole of the dairy premises in the City have been systematically inspected, and conditions in a number of these have been substantially improved, particularly among the smaller dairymen.



The following table shows the alterations in the register of purveyors of milk during 1935 and a summary of the work done by the inspectors during the year :—

	1934	1935
Number of wholesale purveyors	123	125
Number of retail purveyors	1,076	1,007
Number of milkshops	3,413	3,354
Number of bottled milkshops	2,385	2,875
Number of bottled milk purveyors	48	40
Total number of new registrations issued	362	349
Total number of transfer registrations issued	425	341
Total number of deletions from register	264	324

*Number of Visits Paid.*

Milkshops	4,568
Wholesale purveyors	233
Retail purveyors	800
To Pasteurising Plants	480
Other visits	31
Unsuccessful visits	190
Interviews	1

*Defects Found.*

Limewashing milkshop or store required	12
Sanitary defects	139
Other defects	153
Notices sent	9
Letters sent	147

The demand for bottled milk in preference to loose milk continues to be reflected in the decrease in the number of loose milk shop registrations and the increase in the number of bottled milk shop registrations.

#### THE INSPECTION OF COWS AND COWSHEDS WITHIN THE CITY AREA.

(Summary of Report by Mr. BRENNAN DE VINE, Chief Veterinary Officer).

At the end of 1935 there were 103 dairy farms housing 1,438 milch cows, in 210 registered sheds, and 46 milch cows in 6 sheds pending registration, etc.

For the purposes of the Milk and Dairies Order, 1926, the cows and cowsheds in City dairies are subject to regular veterinary inspection and each cowshed has been visited at least once a month, and during the year 2,719 visits were made. The health and cleanliness of the cows were generally good and constant attention has also been paid to the sanitary condition of the cowsheds.

*Mastitis.*—There were 53 cases of cows affected with acute catarrhal mastitis. In all these cases the affected cows were kept isolated and their milk was prohibited from sale for human consumption.

*Tuberculosis.*—19 cases of tuberculosis in City dairy herds were dealt with under the Tuberculosis Order, and on post-mortem examination all were found to be affected.

*Milk (Special Designations) Order, 1923.*—At the end of the year there were seventeen producers in the City holding licences to produce Grade "A" milk and one to produce "Certified" milk. One of the conditions under which the licence to produce Grade "A" milk is granted by the local authority for the sale of same is :—

- (ii) An examination of the herd must be made once in every three months by a Veterinary Surgeon nominated by the Licensing Authority. Any animal certified as showing evidence of any disease which may injuriously affect the milk must be immediately removed from the herd and information as to its disposal given to the Licensing Authority.

At the 31st December seventeen farms within the City were producing Grade "A" Milk and special veterinary examination has been made of every milch cow in these herds and the usual three-monthly certificates issued.

One farm within the City was producing "Certified" milk.

In this case all the cows in the herd are submitted to the tuberculin test twice a year and the licence is granted by the Ministry of Health.



*Cowsheds.*—It was necessary in three cases to draw the attention of the owners to the want of cleanliness in the cowsheds, and in nine cases the owners were requested to keep their cows in a cleaner condition, particularly the flanks. In six other cases notice was given in respect of repairs and removal of manure.

Ten sheds (including the seven pending registration December, 1934) have been altered to comply with our requirements and added to the register, attention being paid to the internal construction as well as to lighting, drainage and ventilation.

In addition there are four sheds pending registration, and when the necessary alterations are completed, these will also be added to the register.

In one case special temporary permission was given, permitting the owner to keep eight cows in two unregistered sheds, as the farm buildings are to be demolished.

Thirty-one sheds have been discontinued, the owners having given up keeping cows in these sheds for the sale of milk. In six cases the farm buildings, which included nineteen registered sheds, were taken over for building purposes.

Two registered sheds have been burnt out, but arrangements are being made to have them re-built.

Five changes of occupancy have occurred and the register has been amended accordingly.

*Detection of Tuberculosis in Milk Produced in City Dairies.*—Bulk samples of milk are taken from each City dairy herd during the year as a check on the clinical examination of the dairy cows, and in addition individual samples are taken in suspected cases. 204 samples, of which 12 were infected, were taken as follows:—

			Infected.
Mixed samples	...	144	8
Individual samples	...	60	4
		204	12

Nineteen cows, affected with tuberculosis, were removed from City dairy herds during the year, six of which were found, on post-mortem examination, to be affected with tuberculosis of the udder. The other thirteen cows all showed clinical evidence of tuberculosis.

#### EXAMINATION OF MILK COMING INTO THE CITY FROM OUTSIDE SOURCES FOR THE PRESENCE OF TUBERCLE BACILLI.

1,668 samples of mixed milk were taken at various City depots from churns, etc., sent in from outside sources:—

Source.	Bulk Samples.	Result of Exam.		Percentage Infected
		Free.	Infected.	
Cheshire	1	1	—	—
Derbyshire	7	4	3	42.8
Gloucestershire	24	23	1	4.1
Herefordshire	48	45	3	6.2
Leicestershire	24	16	8	33.3
Northamptonshire	1	1	—	—
Oxfordshire	1	1	—	—
Shropshire	147	136	11	7.5
Staffordshire	549	503	46	8.4
Warwickshire	686	634	52	7.6
Worcestershire	173	163	10	5.8
Wiltshire	1	1	—	—
	1,662	1,528	134	—
Pasteurised	6	6	—	—
TOTAL	1,668	1,534	134	8.0

Note.—The 6 samples of pasteurised milk were taken for the purpose of checking the efficient working of the pasteurisation plant at various depots.

*Milk and Dairies (Consolidation) Act, 1915.*—It is an obligation under Section 4 of the above Act for the County Medical Officer to arrange for the inspection of cattle in dairies in respect of which notice is given that milk supplied therefrom has been found to contain tubercle bacilli.

In connection with the 134 infected samples of mixed milk which had come into the City from outside sources, notification under the Milk and Dairies (Consolidation) Act, 1915, was sent in each case to the Medical Officer of Health of the County in which the cows from which the milk was obtained were kept, and a veterinary inspector from this department attended at the time the inspection of each of the herds was made by the local authority concerned.

The 134 infected bulk samples were taken from milk supplied from 132 farms. These farms were visited and 4,073 cows were examined and further milk samples (mixed and individual) taken from each herd by the local authority concerned.

During the year reports have been received in 105 cases showing that at the farms visited 154 cows were discovered to be affected with tuberculosis and giving milk containing living tubercle bacilli; these cows were subsequently slaughtered.

In 29 cases animals responsible for the infection in the milk were not traced, but in 13 of these cases it was ascertained that cows had either been sold out for slaughter or had gone "dry" prior to the visit to the farm by the veterinary inspector.

*Notifications received from other Local Authorities.—*

*Notifications from Smethwick C. B. :*

1.—That Grade "A (T.T.)" milk, sold in Smethwick, had been found to contain living tubercle bacilli. It was alleged that the milk had been bottled and sold by a Birmingham firm. On investigation it was ascertained that although the milk was bottled in Birmingham it was still the property of the Smethwick firm from whom it was received and afterwards returned to them bottled.

2. That a sample of milk from a supply consigned to Smethwick from a Birmingham dealer, had been found to contain living tubercle bacilli. We accordingly took samples from the milk of all the suppliers to this particular dealer, but the result of the bacteriological examination showed all the samples to be negative.

3. That a sample of milk from a supply consigned to Smethwick had been found to be infected. As the milk was produced at a City dairy we specially inspected the herd of 26 cows and took 3 group samples and 2 individual samples from 2 suspected cows, which were affected with induration of the udder. All the samples taken proved to be free, but it was ascertained that 3 cows had been sold out since the original infected sample was taken in Smethwick.

4. That a sample of milk collected from the premises of a retail purveyor of milk had been found, on biological examination, to contain living tubercle bacilli. The milk was supplied by a City dairy. We examined the herd of 24 cows, 16 of which had been purchased since the infected sample was taken, to replace cows disposed of. The 2 individual and 1 group samples collected all proved to be free, but in this case it is possible that the cow or cows giving the infected milk were among those animals which were disposed of between the time the infected sample was taken and when we took our samples.

5. That a sample of milk, procured from a supply in Smethwick, had been found, on biological examination, to contain living tubercle bacilli. As in this case the consignment was from a City milk depot, we took samples from all supplies received, two of which proved to be positive and the respective Medical Officers of Health (Staffordshire and Shropshire) were advised and subsequently reported that 4 cows had been taken under the Tuberculosis Order.



## Notification from Staffordshire County Council :—

1. Notification was received that a sample of milk from a supply consigned to Netherton by a Birmingham dairyman had been found to contain living tubercle bacilli. We visited the farm and took one individual sample and 3 bulk samples. The result received from the Bacteriological Laboratory showed that all these samples proved to be negative. It would seem, therefore, that the animal responsible for the infection was a red cow taken by us under the Tuberculosis Order subsequent to the infected sample taken by the Staffordshire authorities.

*Comparative Return.*—The following table shows the number of samples taken of milk sent in from outside sources during the past ten years and the percentage infected :—

Year.	Samples Taken.	Samples Infected.	Percentage Infected.
1926	811	71	8.7
1927	835	60	7.2
1928	974	91	9.3
1929	958	64	6.7
1930	1,699	105	6.2
1931	1,657	133	8.0
1932	1,086	97	8.9
1933	1,694	108	6.4
1934	1,699	109	6.4
1935	1,668	134	8.0
Average for Period : 7.6			

*Summary of Samples of Milk (Nos. 52—1923) taken during 1935.*—

	No. Taken	No. Infected
<i>From Outside Dairies—</i>		
Pasteurised	6	—
Grade "A"	38	3
Grade "A (T.T.)"	6	—
Non-designated	1,618	131
<i>From City Dairies—</i>		
Grade "A"	60	4
Non-designated	144	8
Total	1,872	146

## ERADICATION OF TUBERCULOSIS FROM DAIRY HERDS SUPPLYING MILK TO THE CITY.

*Birmingham Corporation Scheme.*—Under the Birmingham Corporation Scheme for the eradication of tuberculosis from herds supplying milk to the City, the necessary veterinary assistance and tuberculin are given free, subject to certain conditions being complied with. The primary object is that the milk supply of Birmingham shall be as free from infection of tuberculosis as possible.

The double intradermal test with synthetic tuberculin has been used for all herds tested by us during the year.

Seventeen herds, comprising 907 animals, were continuing in the scheme on the 31st December last. From twelve of these herds "Certified" or "Grade A (Tuberculin Tested)" milk is supplied to the City.

## HERDS TESTED DURING 1935.

The testing of herds which come under the Scheme is carried out half-yearly and the following return gives the number of animals tested during the year :—

	Tested.	Passed.	Failed.	Date of entering Scheme.
1	355	354	1	October 24th, 1907.
2	120	115	5	October 3rd, 1908.
3	74	72	2	September 23rd, 1913.
4	15	15	—	May 26th, 1928.
5	56	56	—	November 22nd, 1907.
6	10	10	—	January 6th, 1908.
7	211	210	1	October 3rd, 1908.
8	78	78	—	October 4th, 1924.
9	81	81	—	September 26th, 1928.
10	98	96	2	February 7th, 1929.
11	81	77	4	September 12th, 1913.
12	113	112	1	November 10th, 1931.
13	83	79	4	October 1st, 1932.
14	23	20	3	May 8th, 1932.
15	175	175	—	November 10th, 1932.
16	65	60	5	January 1st, 1934.
17	127	121	6	April 3rd, 1935.
18	9	6	3	Discontinued.
	1,774	1,737	37	
		97.9%	2.1%	

In addition to the testing of the cows in the herds twice a year a certain number of cows were purchased subject to passing the test. These animals were tested at farmers' and dealers' premises before being added to the herds and of the 58 so tested 44 passed the test and were admitted to the herds and are included in the figures given above; 14 failed to pass the test.

## Cows tested during 1934 :—

1,868	1,682	186
	90%	10%

The low percentage and small number of reactors for the year 1935 are due to the fact that in 1934 we had three herds which showed a very high percentage of reactors and which discontinued at the end of that year, not coming into account at all during 1935.

## INSPECTION OF SLAUGHTERHOUSES, ETC.

During the year regular veterinary inspection of all animals received in the lairs was carried out at the public abattoir and, in addition, of all animals received in the private lairs connected with the public abattoir.

The staff of meat inspectors at the abattoir was found not sufficient to examine the carcasses of all the animals slaughtered there, and the Committee decided, after due consideration, to increase the staff by one extra veterinary inspector and five qualified meat inspectors. These posts have been advertised and the appointments will be made early in 1936. It is expected that when the new appointments have been made there will be sufficient staff to deal with the whole of the carcasses submitted for sale in the meat market.

In connection with the slaughterhouse at Montague Street Market, regular inspection has been carried out of all the animals slaughtered there.

In addition to the public slaughterhouses, there were, at the 31st December, 90 private slaughterhouses in the City area, 49 of these being registered slaughterhouses and 41 annually licensed slaughterhouses. These private slaughter houses are regularly inspected by the district inspectors. In five cases alterations and improvements have been made during the year. Of the 90 private slaughterhouses in the City area, 27 are used for the slaughter of pigs only.

In addition to the above private slaughterhouses, there are 2 annually licensed knackeries in the City.



## RETURN OF ANIMALS SLAUGHTERED.

Return of Animals slaughtered in the Public Slaughterhouses :

	Beasts.	Calves.	Sheep and Lambs.	Figs.	Total.
Public Abattoir, Sherlock Street	47,309	96,344	258,457	97,267	499,377
Public Slaughterhouse, Montague Street	13	36	57	5,822	5,928
Return of Animals slaughtered in Private Slaughterhouses	7,714	3,796	58,036	278,536	348,082

## IMPORTED MEAT.

The imported meat received into the City is stored principally in the refrigerators at the City Meat Market and the Lightfoot Refrigeration Co., Ltd., Digbeth.

Return showing the approximate amount and percentage of home killed and imported meat sold in the City during the year :—

	Home Killed tons.	Imported tons.	Total tons.
Beef and Veal	18,025	12,544	30,569
Mutton	5,935	12,027	17,962
	23,960	24,571	48,531

		Percentage of total :—	
		Home Killed.	Imported.
Beef and Veal	...	59.0	41.0
Mutton	...	33.0	67.0
		49.4	50.6

## MONTAGUE STREET PIG MARKET.

This market is divided into an English side and an Imported side. During the year 98,083 pigs were passed through the English side and 39,791 pigs were passed through the Imported side, all these latter pigs being received from Ireland, as compared with 117,926 and 18,958 pigs respectively, during the year 1934. All these pigs were licensed from the market to various bacon factories and slaughterhouses.

In addition to those which passed through Montague Street Market, 19,814 pigs *ex* Ireland were received direct at various slaughterhouses and bacon factories in the City, as compared with 11,526 received in 1934.

## WHOLESALE FRUIT, VEGETABLE, AND FISH MARKETS.

In connection with the fruit and vegetable markets there is a sorting room in Gloucester Street, to which all fruit, which has a percentage damaged amongst it, is sent for sorting. The fruit so passed through the sorting room is subject to inspection before being allowed to be offered for sale for human consumption. This fruit is mainly purchased by stall holders and hawkers who ply their trade principally in the streets in the neighbourhood of the markets.

## BUTCHERS' SHOPS.

During the summer months of 1935 many of the butchers' shops were open on Sunday mornings. This made it necessary for us to employ extra inspectors on Sunday mornings to inspect the meat in those shops.

## FISH MARKET.

*Shell-fish.*—74 samples of mussels were collected from consignments *ex* :—

Aberdovey	King's Lynn.
Annan	Lytham
Bagillt	Oranmore
Barmouth	Parkgate
Bodorgan	Penclawdd.
Conway	Portmadoc
Ferry Side	Towyn
Holywell	

and in 16 cases the bacteriological examination showed more than 100 B.Coli per c.c.

27 samples of oysters were collected from consignments *ex* :—

Brightlingsea	London
Liverpool	Whitstable

and in 5 cases the bacteriological examination showed more than 100 B.Coli per c.c.

As a result of the bacteriological examination of samples taken from shell-fish *ex* Annan, Barmouth, Conway, Liverpool, London, Lytham, Malldraeth Bay Bodorgan, Parkgate, Penclawdd and Portmadoc, notice was given in each case under the Public Health (Shell-fish) Regulations, 1935, to the local authorities concerned.

*Birmingham Corporation Act, 1935.*—Since the passing of this Act, which gives power to prohibit the sale of any shell-fish likely to cause danger to public health, the Corporation now has power to prohibit the sale in the City of shell-fish which, on examination, are found to be badly contaminated.

*Salmon and Freshwater Fisheries Acts.*—In February "unclean" salmon consigned to the City in packages not marked as provided by the Acts were seized by one of our inspectors. The matter was reported to the Fishmongers' Company who took a prosecution in Birmingham. The defendant was fined £30 for being in possession of "unclean" salmon and £20 for consigning salmon not marked in accordance with the Acts.

#### REGISTRATION OF PREMISES USED FOR THE MANUFACTURE OF POTTED MEATS, ETC.

*Food Preparation Premises and Shops.*—On 31st December there were 196 food preparation premises on our register as follows :—

Cooked Meats, etc., Manufacturers	...	124
Sausage and Pork Pie Manufacturers	...	70
Jam Manufacturers	...	2
		<hr/>
		196
		<hr/>

The following shops in which food is sold were regularly visited :—

Beef and Pork Butchers	...	1,152
Grocers	...	1,398
Green Grocers	...	1,384
Hucksters	...	5,023
Fish Friers	...	650
Fishmongers	...	661
		<hr/>
		10,268
		<hr/>



## INSPECTIONS.

The following is the number of visits paid by the Inspectors:—

Slaughterhouses	...	...	...	8,458
Food Preparation Premises	...	...	...	7,552
Fish Friers	...	...	...	5,311
Beef and Pork Butchers	...	...	...	33,023
Grocers	...	...	...	4,268
Green Grocers and Fishmongers	...	...	...	21,865
Hucksters	...	...	...	2,260
Ham and Bacon Curers	...	...	...	3,928
Street Hawkers	...	...	...	26,233
Horse Flesh	...	...	...	50
Cold Stores	...	...	...	21,771
				<hr/> 134,719 <hr/>

## FISH FRIERS' PREMISES.

*Birmingham Corporation Act, 1935.*—Provision has been made in this Act for the making of bye-laws in respect of fried fish shops, to replace the bye-laws at present in force, which were made under a Declaratory Order of the Ministry of Health. It is expected that these new bye-laws will come into force early in 1936.

Registered fried fish shops in the City Area—650.

## PROSECUTIONS.

Legal proceedings were taken in four cases under the Public Health Acts in respect of diseased and unfit meat exposed and deposited for sale.

	Fine.
Diseased bacon exposed for sale	10/-
Diseased ham deposited for sale	£1
Diseased meat deposited for sale	£5
Diseased bacon and rabbits deposited for sale	£3

## FOOD POISONING.

*Notifications of Food Poisoning.*—Several notifications of suspected food poisoning were received from the Medical Officer of Health during the year. In each case the source of the suspected food was investigated.

## PSITTACOSIS.

In addition the Ministry of Health reported a case of psittacosis, alleged to have been caused by parakeets purchased in Birmingham. All the parakeets at the shop concerned were inspected and three pairs of birds sent to the Ministry for examination: two of these birds were found to be affected with psittacosis.

## MEAT AND OTHER FOODS CERTIFIED AS UNFIT FOR HUMAN CONSUMPTION.

Number of Surrenders.	Class of Foodstuffs.	Tons.	Cwts.	Qrs.	Lbs.
12,473	Meat	548	11	1	23
750	Fish	91	0	3	15
950	Poultry, Game, etc.	20	9	1	2
747	Fruit and Vegetables	345	7	0	22
131	Miscellaneous	3	8	1	10
<hr/> 15,051 <hr/>		<hr/> 1,008 <hr/>	<hr/> 17 <hr/>	<hr/> 0 <hr/>	<hr/> 16 <hr/>

The weather during December was very favourable for the handling of foodstuffs for the Christmas markets.

All the unfit meat, fish, poultry and other foodstuffs are sent to the Salvage Department, Montague Street Depot, for destruction.

*Residual Value.*—Compensation at the rate of 3/- per cwt. is paid to the owners of carcasses and parts of carcasses surrendered as unfit for human food, and also in respect of the carcasses of pigs which died during transit.

During the year £1,199 17s. 0d. was paid in respect of the following carcasses, etc. :—

			Tons.	Cwts.	Qrs.
Beef	...	...	169	10	0
Veal	...	...	10	18	0
Mutton	...	...	19	14	0
Pork	...	...	199	17	0
			399	19	0

#### DISEASES OF ANIMALS ACTS.

The Veterinary Department deals with the whole of the work under these Acts, including the issuing of licences. All sales of horses, cattle, sheep and pigs are controlled under these Acts by the Department. During the year Montague Street Market has been visited twice daily and in addition to visiting the regular weekly sales of horses at Cave's Repository, Moseley Street, the inspectors attended the following sales of cattle, sheep and pigs :—

Cave's Repository, Moseley Street :—	January 23—Sale of Shorthorn Cattle.
Bingley Hall :—	November 5 and 6—Sale of Shorthorn Cattle. November 30 to December 5—Show and sale of fat cattle, sheep, pigs, etc.
Old Beech Farm, Northfield—	September 28—Farm Sale.

The following is a summary of the visits paid by inspectors :—

Railway Sidings	...	...	...	1,940
Cattle Yards	...	...	...	2,456
Markets	...	...	...	498
Pig Keepers' Premises	...	...	...	1,015
Knacker Yards	...	...	...	67
Miscellaneous	...	...	...	39
				6,015

#### ANTHRAX.

During the year seven suspected cases of Anthrax were reported, but in six cases, on microscopic examination of the blood of the dead animals, the result was found to be negative. The other case, which was a bullock that died in the lairs at the City Meat Market, was reported to the Ministry of Agriculture and Fisheries, who confirmed the existence of the disease. The carcass was destroyed at Montague Street and the necessary disinfection carried out.

#### BOVINE TUBERCULOSIS.

*Tuberculosis Order, 1925.*—19 cases of Tuberculosis in cattle coming within the above Order were dealt with during the year. All the animals were slaughtered and compensation amounting to £68 2s. 10d. was paid to the owners. Of the 19 cases, 13 were affected with advanced Tuberculosis and 6 with Tuberculosis, not advanced; and of the total 6 were affected with Tuberculosis of the udder.



## VI. PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES.

### GENERAL.

The mortality figures for 1935 are compared with the decennial averages in the statement below.

Disease.	Deaths in 1935.	Average 1925-1934.	Above or below the average.
Enteric Fever ... ..	2	4	— 2
Smallpox ... ..	0	0	—
Measles ... ..	52	94	— 42
Scarlet Fever ... ..	12	12	—
Whooping Cough ... ..	66	118	— 52
Diphtheria ... ..	84	73	+ 11
Pulmonary Tuberculosis ... ..	732	872	— 140
Other Forms of Tuberculosis ... ..	85	126	— 41
Influenza ... ..	156	362	— 206

The prevalence of the notifiable diseases is shown in the next table:—

Disease.	Cases in 1935.	Average 1925-1934.	Above or below the average.
Enteric Fever ... ..	28	42	— 14
Smallpox ... ..	0	6	— 6
Scarlet Fever ... ..	3591	2264	+ 1327
Diphtheria ... ..	1129	1333	— 204
Erysipelas ... ..	632	498	+ 134
Puerperal Fever ... ..	104	105	— 1
Puerperal Pyrexia ... ..	172	Only notifiable since 1926.	
Ophthalmia Neonatorum ... ..	658	446	+ 212
Pulmonary Tuberculosis ... ..	1023	1323	— 300
Other Forms of Tuberculosis ... ..	190	259	— 69
Acute Primary or Influenzal Pneumonia	2078	2628	— 550
Cerebro-Spinal Fever ... ..	17	18	— 1
Acute Poliomyelitis ... ..	9	12	— 3
Polioencephalitis ... ..	2	1	+ 1
Encephalitis Lethargica ... ..	28	39	— 11
Malaria ... ..	3	5	— 2
Dysentery ... ..	73	11	+ 62
Continued Fever ... ..	1	—	—

The scarlet fever cases exceeded the average by 1,327, those of diphtheria were below the average by 204. As indicated by the number of deaths in relation to this incidence scarlet fever was mild and diphtheria relatively severe in type.

The action taken with regard to puerperal fever, puerperal pyrexia and ophthalmia neonatorum is recorded in the Maternity and Child Welfare section of this Report. The increase in notifications of ophthalmia neonatorum is significant only of greater freedom in notifying many cases which are not severe and are not gonococcal in origin.

The following cases were reported through the Head Teachers of Elementary Schools and the Attendance Officers:—

	1935.	1934.	1933
Measles ... ..	8,765	4,967	9,011
German Measles ... ..	5,192	985	210
Whooping Cough ... ..	3,375	5,896	2,143
Chicken Pox ... ..	5,584	5,437	5,181
Mumps ... ..	1,945	861	6,763

The cases were all visited by the Health Visitors and steps taken to exclude contacts from school where necessary.

## ENTERIC FEVER.

During the year there were 35 cases notified as Enteric Fever, but further investigation revealed the fact that 7 of these were not suffering from the disease. The 28 true cases are tabulated as follows:—

Typhoid Fever	...	...	...	...	17
Para-Typhoid A	...	...	...	...	0
Para-Typhoid B	...	...	...	...	11
Para-Typhoid C	...	...	...	...	0

There were 3 deaths due to bacillus typhosus, 2 of the cases having contracted their infection outside the City, the remaining case being a secondary one.

Of the remaining 14 cases of typhoid fever, 2 were contracted outside the City, 4 followed the consumption of prawns, 6 followed the consumption of lettuce, while 2 were of uncertain origin. Of the 11 cases of para-typhoid B, 6 were contracted outside the City, 1 followed the consumption of mussels, and 4 were of uncertain origin.

## ENTERIC FEVER.

	Number of Cases.	Case rate per 1,000	Number of deaths registered	Death rate per 1,000
1901-5 (Average)	544	.70	91	.12
1906-10	242	.30	51	.06
1911-15	90	.11	22	.03
1916-20	22	.02	5	.01
1921-25	30	.03	4	.00
1926-30	41	.04	5	.00
1931-35	42	.04	2	.00
1926	52	.05	3	.00
1927	40	.04	4	.00
1928	20	.02	3	.00
1929	31	.03	4	.00
1930	62	.06	9	.01
1931	54	.05	1	.00
1932	58	.06	2	.00
1933	30	.03	1	.00
1934	40	.04	6	.01
1935	28	.03	2	.00

## UNDULANT FEVER.

One case of undulant fever came to the notice of this Department during the year, and on investigation it was found that the infection had been contracted outside the City. The authority for the area concerned was duly notified.

## GLANDULAR FEVER.

No cases of this disease came to the notice of the Department during the year 1935.

## SMALLPOX.

No cases of smallpox occurred in the City during the year. A few persons living in the City were contacts to known cases of smallpox in other areas. Accordingly they were visited, vaccination offered, and daily supervision of each was carried out for a period covering the interval of incubation of the disease.



## VACCINATION.

Since April 1st, 1930, when the Local Government Act, 1929, came into force, the administration of the Vaccination Acts has been carried out by the Public Health Committee.

Below are tabulated statistics relating to this work for the current year, together with similar figures relating to each year since 1928. It will be seen that the percentage of successful vaccinations has fallen slightly, while the slight increase of conscientious objectors experienced during recent years continued in 1935. Coupled with this latter fact, however, it is to be remembered that only four cases of smallpox have occurred in the City since 1928; so that there has been no strong incentive to have vaccination performed where parents are otherwise hesitant.

## VACCINATION.

	1935	1934	1933	1932	1931	1930	1929	1928
Births returned .....	16,340	15,703	17,063	17,832	17,866	17,590	17,786	17,954
Conscientious objectors, per cent.	30.6	29.5	28.0	28.0	26.8	25.2	20.4	18.7
Died unvaccinated .....	856	823	830	958	841	900	939	1,020
Successful Vaccinations (per cent. of survivors)	50.8	53.1	55.4	54.8	54.3	53.7	62.0	65.0
Insusceptible .....	0.4	0.5	0.9	1.0	1.1	1.2	0.5	0.7
Postponed by Medical Certificate .....	0.3	0.5	0.4	0.4	0.5	0.6	0.7	0.4
Removed .....	4.9	4.1	3.8	3.5	4.5	5.1	4.1	3.9
Lost sight of .....	2.6	2.6	2.6	2.7	2.3	2.4	2.5	2.6
Still under notice .....	8.7	8.0	7.6	7.9	9.2	10.5	9.1	7.7

## MEASLES.

All cases notified to the Department through the schools have been systematically visited by health visitors, and advice as to nursing and general hygiene given where required.

During the year 623 cases were admitted to Little Bromwich Hospital for treatment.

Since the third quarter of 1930 immunisation methods, even though on a restricted scale, have been applied to the attenuation of infection or the prevention of the disease. It is known that the blood serum of a person who has previously suffered from measles, when given intramuscularly to contacts in suitable amount and at a suitable stage in the incubation period, will either prevent the disease occurring, or so modify it as to make the attack a mild one.

It has happily been made possible to augment considerably the supply of serum by the very generous co-operation of the Birmingham Blood Transfusion Service, whose members have kindly come forward to act as donors.

This serum has been given to selected children under five years of age who had been in contact with measles and who were either also acutely ill with some other disease or were in a state of chronic ill-health. In most of the cases the aim was, not to prevent infection, but to attenuate it, thus obtaining life-long immunity without grave disturbance of health. Apart from cases referred by health visitors and general practitioners for such immunisation, some of the voluntary hospitals requested help with a view of *preventing* further cases occurring in their wards where there were children suffering from acute illnesses. Immunisation has been carried out on 413 children during the year with satisfactory results. The inoculations were for prevention in 275 cases and for attenuation in 138.

There were 52 deaths registered from the disease during the year.

The number of cases in past years, together with the mortality rate, are set out in the following table.

	Number of Cases*	Number of Deaths.	Death rate per 1,000 of population.
1901-5 (Average)	?	279	.36
1906-10	?	294	.36
1911-15	6,027 (1912-1915)	419	.48
1916-20	10,773	168	.18
1921-25	6,831	121	.13
1926-30	7,464	100	.10
1931-35	7,504	76	.08
1926	6,980	78	.08
1927	9,032	129	.13
1928	5,030	41	.04
1929	9,764	196	.20
1930	6,512	58	.06
1931	9,745	177	.18
1932	5,033	52	.05
1933	9,011	77	.08
1934	4,967	23	.02
1935	8,765	52	.05

\*Partial notification only through schools, except for the years 1916-19.

From the following table it is evident that the death-rate from measles in the Central Wards is far in excess of that for the Middle or the Outer Ring of Wards, owing to the course of the disease and the liability to contract complications being directly influenced by overcrowding and insanitary conditions.

Measles death-rate per 1,000.						1933.	1934.	1935.
Central Wards	...	...	...	...	...	.14	.05	.11
Middle Ring	...	...	...	...	...	.07	.02	.03
Outer Ring	...	...	...	...	...	.05	.01	.04

The age-distribution of the fatal cases of measles was as follows:—

	1933.	1934.	1935.
Under 1 year	18	4	11
1 and under 2 years	37	10	22
2 and under 5 years	16	4	13
5 years and over	6	5	6
	<hr/> 77	<hr/> 23	<hr/> 52

### SCARLET FEVER.

The total number of notifications received during the year for this disease was 3,677. Of these 1,552 were treated in hospital and the remainder, 2,125, were treated at home.

After revision of diagnosis in those cases admitted to hospital, the total number of true cases of scarlet fever treated in hospital was 1,474 and those at home 2,117. Several cases admitted as diphtheria proved to be suffering from scarlet fever.

In addition, there were 23 cases treated in the City Hospital on behalf of other Authorities.

The death-rate of .01 per 1,000 for 1935 is about the same as the average death-rate for this disease for the past 10 years.



## SCARLET FEVER CASES AND DEATHS.

	Number of Cases.	Case-rate per 1,000 population	Number of Deaths	Death-rate per 1,000 population	Case mortality per cent.
1901-05 (Average)	4,038	5.21	172	.22	4.26
1906-10 "	3,956	4.83	116	.14	2.93
1911-15 "	5,456	6.29	125	.14	2.29
1916-20 "	2,472	2.73	41	.04	1.66
1921-25 "	2,652	2.84	32	.03	1.21
1926-30 "	1,910	1.96	9	.01	0.47
1931-35 "	2,966	2.90	14	.01	0.47
1926	1,709	1.78	8	.01	0.47
1927	1,510	1.56	8	.01	0.53
1928	1,521	1.56	5	.01	0.33
1929	2,413	2.46	9	.01	0.37
1930	2,397	2.44	15	.02	0.63
1931	2,761	2.73	10	.01	0.36
1932	2,544	2.50	12	.01	0.47
1933	2,639	2.58	20	.02	0.76
1934	3,297	3.21	15	.01	0.45
1935	3,591	3.48	12	.01	0.33

The report on cases treated at the Infectious Diseases Hospital will be found on page 65.

## WHOOPIING COUGH.

Whooping cough caused 66 deaths during 1935. The following table gives the number of cases and deaths in previous years, and it will be seen that both the number of cases and the death-rate were at a higher level than in recent years.

	Number of Cases*	Number of Deaths	Death-rate per 1,000 Population.
1901-5 (Average)	?	316	.41
1906-10 "	?	294	.36
1911-15 "	3,264 (1912-1915)	213	.25
1916-20 "	3,592	206	.23
1921-25 "	4,463	180	.19
1926-30 "	4,443	119	.12
1931-35 "	4,130	87	.08
1926	4,895	128	.13
1927	2,496	69	.07
1928	6,463	163	.17
1929	3,347	123	.13
1930	5,012	110	.11
1931	3,990	89	.09
1932	5,248	131	.13
1933	2,143	35	.03
1934	5,896	115	.11
1935	3,375	66	.06

\*Partial Notification through Schools.

The ages at death were as follows:—

	1931.	1932.	1933.	1934.	1935.
Under 1 year	37	60	14	52	26
1 and under 2 years	35	41	13	37	14
2 and under 5 years	13	23	6	24	24
Over 5 years	4	7	2	2	2
Totals	89	131	35	115	66

Thus 40 out of the 66 deaths occurred among children under two years of age.

Every case of whooping cough reported to the Department is visited, and advice given on hygienic measures. Where appropriate the services of a district nurse are supplied under an arrangement made with the District Nursing Association.

## DIPHTHERIA.

The total number of cases notified was 1,674. Of these 1,590 were removed to the City Fever Hospital, the remainder (84) being nursed at home.

Revision of diagnosis took place in 560 of the hospital cases and 1 home case, while 16 cases sent in as scarlet fever proved to be suffering from diphtheria.

After correction, the net number of cases of definite diphtheria belonging to the City was 1,129, of whom 1,046 were treated in hospital and 83 at home.

In addition, there were 206 cases treated in the City Hospital on behalf of other authorities.

## DIPHTHERIA CASES AND DEATHS.

	Cases of Clinical Diphtheria.	Case-rate per 1,000 of Population.	Deaths <sub>1</sub>	Death-rate per 1,000 of Population.	Case Mortality per cent.
1901-05 (Average)	991	1.28	159	.20	16.0
1906-10	1,210	1.48	149	.18	12.3
1911-15	1,125	1.30	155	.18	13.8
1916-20	1,065	1.19	143	.16	13.4
1921-25	1,651	1.76	109	.12	6.6
1926-30	1,642	1.69	84	.09	5.1
1931-35	871	0.85	60	.06	6.9
1926	1,804	1.88	116	.12	6.4
1927	1,543	1.60	61	.06	4.0
1928	1,552	1.59	70	.07	4.5
1929	1,611	1.64	86	.09	5.3
1930	1,701	1.73	88	.09	5.2
1931	1,171	1.16	62	.06	5.3
1932	620	0.61	35	.03	5.6
1933	417	0.41	33	.03	7.9
1934	1,019	0.99	84	.08	8.2
1935	1,129	1.09	84	.08	7.4

The distribution over the City is indicated in the table below. From this it will be seen that the cases were more numerous in the Central Wards than in the Middle and Outer Ring.

Central Wards	{	St. Paul's	...	...	...	1.76	} Average 1.42
		St. Mary's	...	...	...	1.78	
		Duddeston and Nechells	...	...	...	1.79	
		St. Bartholomew's	...	...	...	0.92	
		St. Martin's and Deritend	...	...	...	1.14	
		Market Hall	...	...	...	1.51	
		Ladywood	...	...	...	1.06	
Middle Ring	{	Lozells	...	...	...	1.37	} Average 0.80
		Aston	...	...	...	1.36	
		Washwood Heath	...	...	...	0.62	
		Saltley	...	...	...	0.55	
		Small Heath	...	...	...	0.54	
		Sparkbrook	...	...	...	0.62	
		Balsall Heath	...	...	...	0.79	
		Edgbaston	...	...	...	0.37	
		Rotton Park	...	...	...	0.70	
		All Saints'	...	...	...	1.13	



Outer Ring	Soho	...	...	...	1.10	Average 0.99
	Sandwell	...	...	...	0.78	
	Handsworth	...	...	...	0.77	
	Perry Barr	...	...	...	0.76	
	Erdington	...	...	...	1.07	
	Gravelly Hill	...	...	...	1.18	
	Bromford	...	...	...	1.54	
	Stechford	...	...	...	1.19	
	Yardley	...	...	...	1.32	
	Acocks Green	...	...	...	0.75	
	Hall Green	...	...	...	1.20	
	Sparkhill	...	...	...	0.21	
	Moseley and King's Heath	...	...	...	0.61	
	Selly Oak	...	...	...	1.03	
	King's Norton	...	...	...	0.30	
	Northfield	...	...	...	1.85	
	Harborne	...	...	...	1.12	
	Whole City	...	...	...	1.09	

A report on the cases treated at the Infectious Diseases Hospital will be found on page 65.

#### DIPHTHERIA ANTI-TOXIN.

Diphtheria anti-toxin is distributed free of charge to medical practitioners for the treatment of their patients and can be obtained from the Public Health Department, the Bacteriological Laboratory and 18 Police Stations.

#### IMMUNISATION AGAINST DIPHTHERIA.

The work of immunisation continues to make good progress, and 11,720 children were immunised through this department during 1935, together with 1,164 immunised by general practitioners.

There are now approximately 75,000 immunised children and adolescents in the City. The table below shows the various directions in which immunisation has been effected. In order to carry this out the Medical Officer concerned now spends eight sessions a week on diphtheria immunisation, concentrating on the children under eight years of age, since these are the most susceptible to the disease.

	Number of Immunisation Centres.	CHILDREN IMMUNISED.	
		Completely immunised.	Incompletely immunised.
Council House	1	683	16
Infant Welfare Centres	42	4193	525
Day Schools	89	5859	230
Residential Institutions and Residential Schools	20	794	—
Special Schools	13	191	5
<b>Totals</b>	<b>165</b>	<b>11720</b>	<b>776</b>

Renewed proof of the value of immunisation has been afforded during the year. There has been a general increase throughout the country in the incidence of and mortality from diphtheria during 1934 and 1935; and it is significant that in Birmingham this rise has been confined to the unprotected portion of the population only—no death from diphtheria having occurred in an immunised person since the work was started in 1925.

In order to encourage early immunisation, to stimulate the interest of parents and to show that the protective treatment is simple and not painful, a film has been taken at Little Bromwich Fever Hospital, two schools and an Infant Welfare Centre in the City, demonstrating the technique of immunisation at actual clinics. This film has already been shown 126 times, and is available for any suitable meetings.

## DYSENTERY.

Seventy-four cases of dysentery were notified during the year, most of them occurring in a particular outbreak in two of the residential institutions in the City, 59 being confirmed bacteriologically. Fifteen cases were due to Flexner's bacillus, 43 to B. Sonne, and 1 to B. Friedlander. There were 15 deaths.

## FOOD POISONING.

There were 9 cases of food poisoning reported during 1935. Three cases were due to the consumption of a-la-mode beef, the organism involved being the bacillus aertryke. Five cases were due to the consumption of old steak, but bacteriological examination proved negative. The remaining case, a man of 75 years of age, died after the consumption of a pork pie two days old.

## ACUTE ANTERIOR POLIOMYELITIS.

Nine cases of this disease were notified, no cases proving fatal. A review of the nine cases some six months after the onset showed that two had completely recovered while improvement was shown in a further five cases. Treatment is being continued in these five cases. The two remaining cases could not be traced as the families had left the district.

## POLIOMYELITIS.

Year.	Cases notified.	Died.	Complete recovery.	Some paralysis.
1917	11	2	6	3
1918	4	—	2	2
1919	14	1	6	7
1920	1	—	—	—
1921	11	4	1	6
1922	6	—	1	5
1923	33	3	1	29
1924	39	5	5	29
1925	11	3	5	3
1926	38	3	3	32
1927	15	1	6	8*
1928	6	1	1	4
1929	6	—	1	5
1930	9	1	3	5
1931	3	—	1	2
1932	17	6	2	9
1933	10	3	1	6
1934	5	—	3	2
1935	9†	—	2	5

\* One died later of intercurrent disease. †Two left district.

## POLIO-ENCEPHALITIS.

Two cases of this disease were notified during the year; one died and the other had much improved and is now attending school.

## ENCEPHALITIS LETHARGICA.

During the year 28 true cases of this disease came to light in the City, 26 proving fatal. The dates of onset were as follows:—

1914	1
1917	2
1921	2
1922	1
1924	2
1925	4
1926	2
1927	2
1929	2
1930	1
1931	1
1932	2
1934	1
1935	5



The cases notified and deaths recorded in previous years have been as follows:—

Year.	Cases.	Deaths.
1919	11	5
1920	18	7
1921	25	8
1922	12	4
1923	29	12
1924	282	44
1925	92	32
1926	89	36
1927	53	32
1928	41	22
1929	27	20
1930	10	7
1931	18	12
1932	23	19
1933	25	21
1934	12	9
1935	28	26

#### CEREBRO-SPINAL FEVER.

Eighteen cases were notified as cerebro-spinal meningitis during the year. Of these, 17 were confirmed bacteriologically. In one case the diagnosis was afterwards revised. Of the 17 actual cases 15 succumbed to the attack, giving a case mortality rate of 88 per cent., and two cases recovered.

Age distribution.	Cases.
Under 1 year	6
1 — 2 years	5
3 — 4 „	3
5 — 9 „	1
10 — 14 „	1
15 — 19 „	0
20 — 25 „	1

The cases and deaths in previous years have been as follows:—

Year.	Cases notified.	Deaths.
1920	25	18
1921	9	7
1922	18	16
1923	4	2
1924	11	8
1925	7	6
1926	10	9
1927	12	10
1928	12	9
1929	15	15
1930	14	14
1931	25	21
1932	31	22
1933	26	20
1934	24	20
1935	17	15

## REPORT ON THE CITY INFECTIOUS DISEASES HOSPITALS FOR THE YEAR 1935.

(By Dr. JOHN MCGARRITY, Medical Superintendent).

### PREFACE.

During the year, 4,410 patients were admitted to the wards compared with 4,506 during 1934; 3,595 during 1933 and 3,996 during 1932. The figure 4,410 includes 241 patients from outside the city, mostly diphtheria.

The following tables give the numbers of cases of the most important infectious diseases and miscellaneous cases notified during the year and admitted to the hospital, and also the numbers who were discharged or died, as well as the numbers remaining in hospital at the end of the year. The figures in these tables have not been corrected as regards their true diagnosis. The revised diagnosis will be found under the report of the different diseases later in the report.

It will be noted that there has been a slight increase in admissions of notified cases of diphtheria, a marked decrease in admissions of the notified cases of scarlet fever and a marked increase in admissions of the miscellaneous cases. The notified diphtheria admissions, 1,796 in all, as compared with 1,551 last year, include 190 patients from outside the city, of whom 133 were true cases of diphtheria; 11 deaths occurred among these 133 cases representing a case mortality of 8.27 per cent. as compared with the hospital mortality for all diphtheria cases of 6.80 per cent. These out-of-boundary diphtheria patients, mostly from Dudley, were on the whole more severe than the cases admitted from Birmingham.

The notified scarlet fever admissions, 1,575 in all, as compared with 2,266 last year, include 18 patients from outside the city. This decrease in the number of scarlet fever admissions was due to the fact that patients suffering from mild scarlet fever were constantly refused in order to admit not only the diphtheria cases but an increasing number of cases of measles and whooping cough.

The miscellaneous cases, 1,039 in all, as compared with 668 last year include 577 cases of measles and 201 cases of whooping cough.

During the year, from February to June, the majority of the new wards were opened for one reason or another, thereby giving relief to overcrowded wards and also allowing us to admit the measles and whooping cough cases: it was also made possible to clear some of the old wards for painting and cleaning. While the new wards have relieved the situation, the proposed new cubicles are more needed than ever in order to avoid cross-infections as far as it is possible to do so. The proposed new cubicle blocks will give us additional accommodation for 156 beds which will be used mainly for double and treble infections and for septic cases of various kinds.

### STATISTICS

#### (a) DIPHTHERIA. (Uncorrected for diagnosis).

	Little Bromwich.	Witton.	Total.
In hospital on December 31st, 1934	290	—	290
Admitted during 1935	1,796	—	1,796
Discharged during 1935	1,692	—	1,692
Died during 1935	88	—	88
Remaining on December 31st, 1935	306	—	306

#### (b) SCARLET FEVER. (Uncorrected for diagnosis).

	Little Bromwich.	Witton.	Total.
In hospital on December 31st, 1934	146	33	179
Admitted during 1935	1,575	—	1,575
Transfers during 1935	11	20	31
Discharged during 1935	1,552	42	1,594
Transfers during 1935	20	11	31
Died during 1935	11	—	11
Remaining on December 31st, 1935	149	—	149



## (c) MISCELLANEOUS. (Uncorrected for diagnosis).

	Little Bromwich.	Witton.	Total.
In hospital on December 31st, 1934	16	—	16
Admitted during 1935	1,039	—	1,039
Discharged during 1935	909	—	909
Died during 1935	89	—	89
Remaining on December 31st, 1935	57	—	57

## (d) MISCELLANEOUS (Uncorrected for diagnosis).

Chickenpox	...	...	...	24
Diarrhoea	...	...	...	4
Dysentery	...	...	...	20
Encephalitis Lethargica	...	...	...	1
Enteric Fever	...	...	...	18
Erysipelas	...	...	...	119
Measles	...	...	...	577
Meningitis	...	...	...	5
Miscellaneous Observations	...	...	...	8
Mumps	...	...	...	12
Pemphigus	...	...	...	1
Pneumonia	...	...	...	2
Rubella	...	...	...	46
Vincent's Angina	...	...	...	1
Whooping Cough	...	...	...	201
Total				1,039

## SCARLET FEVER.

1,575 patients were admitted during the year with a notified diagnosis of scarlet fever; of these, 137 were finally diagnosed as suffering from other complaints, as follows:—

No evidence of scarlet fever	...	...	...	49
Erythema	...	...	...	17
Tonsillitis	...	...	...	14
Measles	...	...	...	12
Rubella	...	...	...	21
Diphtheria	...	...	...	4
Otorrhoea	...	...	...	4
Chickenpox	...	...	...	3
Dermatitis	...	...	...	2
Mastoiditis	...	...	...	2
Miscellaneous	...	...	...	9
Total				137

The miscellaneous group consists of one case of each of nephritis, rhinitis, quinsy, adenitis, erysipelas, urticaria, stomatitis, laryngitis, and streptococcal carrier.

Actually 1,496 cases of true scarlet fever were treated in the wards, of whom 50 were notified as diphtheria, 7 as measles and 1 as rubella; 38 had concurrent infections, as follows:—

Scarlet fever and concurrent diphtheria	...	...	13
Scarlet fever and concurrent chickenpox	...	...	9
Scarlet fever and concurrent rubella	...	...	6
Scarlet fever and concurrent whooping cough	...	...	5
Scarlet fever and concurrent measles	...	...	2
Scarlet fever and concurrent mumps	...	...	2
Scarlet fever, concurrent diphtheria and erysipelas	...	...	1
Total			38

The type of scarlet fever remains very mild but there were:—

Septic cases	...	...	...	...	8
Sub-septic cases	...	...	...	...	3
Toxic cases	...	...	...	...	3
Haemorrhagic cases	...	...	...	...	1
Total					15

The number of deaths attributed to scarlet fever was 11, giving a hospital mortality of 0.7 per cent.

Details of the fatal cases were as follows:—

	Age in years.	Cause of Death.
1.	24	Haemorrhagic scarlet fever.
2.	25	Simple scarlet fever ; mastoidectomy.
3.	13	Simple scarlet fever ; endocarditis.
4.	4	Septic scarlet fever.
5.	3½	Simple scarlet fever ; broncho-pneumonia.
6.	3½	Septic scarlet fever ; broncho-pneumonia.
7.	4½	Simple scarlet fever ; mastoidectomy ; streptococcal meningitis.
8.	11	Simple scarlet fever ; mastoidectomy ; septicaemia.
9.	17	Toxic scarlet fever.
10.	9 months	Simple scarlet fever ; broncho-pneumonia.
11.	8	Septic scarlet fever ; suppurative adenitis ; cerebellar abscess.

The principal complications are noted below in two groups—(1) serum treated and (2) non-serum treated.

Principal complications.	Serum treated 350		Non-serum treated 1,146	
	Nos.	%	Nos.	%
Arthritis	6	1.71	19	1.65
Nephritis	4	1.14	16	1.40
Otitis media	27	7.71	66	5.76
Mastoid	7	2.00	9	0.78
Late albuminuria	4	1.14	14	1.22
Late adenitis	49	14.00	90	7.85
Tonsillitis	6	1.71	13	1.13
Relapse	13	3.71	11	0.96
Rhinitis	17	4.86	21	1.83
Endocarditis	3	0.85	4	0.34
Myocarditis	5	1.43	4	0.34
Lobar pneumonia	2	0.57	—	—
Broncho-pneumonia	2	0.57	3	0.26
Jaundice	—	—	2	0.17
Streptococcal meningitis	1	0.28	—	—
Cerebellar abscess	1	0.28	—	—
Erysipelas	1	0.28	1	0.08
Totals	148		273	

It should be noted that those cases which received serum were, in the main, more severe on admission. The much higher percentage of relapses in the serum treated group is interesting.



Table showing age and sex of scarlet fever patients.

Age group	0—5	5—10	10—15	15—25	25—45	Over 45	Totals.
<b>RECOVERED.</b>							
Males	159	272	138	62	25	1	657
Females	162	284	216	102	58	6	828
<b>DIED.</b>							
Males	1	—	2	1	—	—	4
Females	4	1	—	1	1	—	7
<b>TOTALS</b>	<b>326</b>	<b>557</b>	<b>356</b>	<b>166</b>	<b>84</b>	<b>7</b>	<b>1496</b>

Hospital mortality 0.7 per cent.

**DIPHTHERIA.**

1,796 patients were admitted to the wards with a notified diagnosis of diphtheria. Of these, 628 required revision of diagnosis, and 26 were found to be suffering from diphtheria concurrently with another disease. Actually, 1,177 true cases of diphtheria were treated in the wards during the year, including four patients admitted with a notified diagnosis of scarlet fever, two as measles, one as mumps, one as whooping cough, and one as erysipelas.

Concurrent infections occurred as follows:—

Concurrent diphtheria and scarlet fever	...	14
Concurrent diphtheria and chickenpox	...	4
Concurrent diphtheria and whooping cough	...	3
Concurrent diphtheria and measles	...	2
Concurrent diphtheria and rubella	...	1
Concurrent diphtheria and erysipelas	...	1
Concurrent diphtheria, scarlet fever and measles	...	1
<b>Total</b>		<b>26</b>

Revised diagnosis of 628 patients notified as diphtheria:—

Tonsillitis	...	306
Carrier of virulent diphtheria organism	...	89
No evidence of disease	...	55
Scarlet fever	...	50
Laryngitis	...	36
Quinsy	...	17
Rhinitis	...	16
Measles	...	9
Acute lobar pneumonia	...	6
Pharyngitis	...	6
Otorrhoea	...	5
Adenitis	...	4
Whooping cough	...	3
Broncho-pneumonia	...	3
Bronchitis	...	3
Retro-pharyngeal abscess	...	3
Stomatitis	...	3
Vincent's angina	...	3
Rubella	...	2
Chickenpox	...	2
Common cold	...	2
Thrush	...	2
Erysipelas	...	1
Influenza	...	1
Enteritis	...	1

Total 628 = 35.02 per cent.

Death occurred in five of the above revised cases; two from broncho-pneumonia, one from lobar pneumonia, one from Vincent's angina with chronic myocarditis, and one from streptococcal meningitis following tonsillitis and acute middle ear disease.

Table showing types of diphtheria and mortality.

Type.	Total.	Died.	Mortality.
Faucial	823	26	3.16%
Nasal	130	1	0.77%
Faucial and nasal	139	45	32.37%
Faucial and laryngeal	46	5	10.87%
Faucial, nasal and laryngeal	5	2	40.0%
Laryngeal	28	1	3.57%
Nasal and laryngeal	2	—	—
Faucial, nasal and ocular	3	—	—
Faucial and aural	1	—	—
<b>Totals</b>	<b>1177</b>	<b>80</b>	<b>6.80%</b>

The above table speaks for itself.

The case classified as having died from nasal diphtheria was suffering from concurrent erysipelas.

21 patients died within 48 hours of admission to hospital. Of these, 11 died within 24 hours of entering hospital. Altogether 80 patients died, representing a hospital mortality of 6.80 per cent.: this is a reduction from last year's figure of 8.04 per cent., and is almost the same as the figure of 6.72 per cent. for 1933.

Table showing case mortality in diphtheria according to the day of disease on which serum was first administered.

Day of disease on which serum was given.	Total.	Died.	Mortality.
1st	29	—	—
2nd	211	10	4.74%
3rd	225	16	4.11%
4th	207	19	9.18%
5th	128	11	8.59%
6th day and later	301	24	7.97%
Prophylactic dose later than 5th day	44	—	—
No serum	32	—	—
<b>Totals</b>	<b>1177</b>	<b>80</b>	<b>6.80%</b>

Analysis of the causes of death in the 80 patients in which diphtheria was either the cause of death or a contributory cause.

Circulatory collapse	63
Late respiratory paralysis	9
Laryngeal obstruction and cardiac failure	3
Laryngeal diphtheria with concurrent measles and pneumonia	1
Laryngeal diphtheria with broncho-pneumonia	1
Concurrent diphtheria and septic scarlet fever	1
Nasal diphtheria with concurrent erysipelas and marasmus	1
Diphtheria with gangrenous appendicitis and peritonitis	1
<b>Total</b>	<b>80</b>



Post-diphtheritic paralysis occurred as follows:—

	Recovered.	Died.
Palatal	185	14
Oculo-motor	21	4
Ciliary	16	3
Facial	16	6
Pharyngeal	23	9
Ptosis	3	1
Lower limbs	44	1
Cervical	43	7
Diaphragmatic	3	9
Totals	354	54

The 354 paralyses noted above occurred in 221 patients, all of whom recovered, giving a paralysis rate of 20.15 per cent., as compared with 20.7 per cent. in 1934 and 20.5 per cent. in 1933.

The 54 paralyses occurred in 14 fatal cases.

#### LARYNGEAL DIPHTHERIA.

Eighty-one of the diphtheria patients had some laryngeal involvement, and 23 of these required interference for the relief of laryngeal obstruction; 12 were relieved by intubation alone, while 2 required subsequent tracheotomy. One of the cases in which intubation alone was successful died some weeks later from respiratory paralysis.

In four cases tracheotomy was performed without a previous intubation, with success, but one of these died from circulatory failure three weeks later.

The remaining 5 cases died: two of these obtained no relief from either intubation or tracheotomy; two were suffering from concurrent measles and diphtheria, and one had a diphtheritic broncho-pneumonia. One case of laryngitis associated with measles required tracheotomy, which was successful in relieving the condition.

One case of broncho-pneumonia with laryngeal obstruction was intubated and subsequently tracheotomized, but died of the pneumonia.

#### REACTIONS FOLLOWING SERUM.

Amount of serum administered	0—16,000 units I.M.	24,000 or more I.M.	I.V. or I.M. & I.V.	Totals.
Numbers	603	284	258	1145
Urticaria	57	80	108	245
Urticaria and pyrexia	1	1	3	5
Rigor and urticaria	—	—	4	4
Rigor	—	—	6	6
Morbilliform rash	2	1	1	4
Urticaria and jaundice	—	1	—	1
Totals	60	83	122	265
	9.95%	29.22%	47.29%	23.14%

Table showing age and sex of diphtheria patients.

Age group.		0—5	5—10	10—15	15—25	25—45	Over 45	Totals.
RECOVERED.								
Males	.....	178	209	83	32	10	4	516
Females	.....	117	233	120	73	31	7	581
DIED.								
Males	.....	9	24	4	3	—	—	40
Females	.....	16	20	2	2	—	—	40
TOTALS		320	486	209	110	41	11	1177

Hospital mortality 6.8 per cent.

It will be seen from the above table that 68 per cent. of the total cases and 86 per cent. of the deaths occurred in children under the age of 10 years.

## MEASLES.

In all, 577 patients were admitted with a notified diagnosis of measles and of these, 65 required revision of diagnosis, as follows:—

Rubella	.....	28
Rubella, nasal diphtheria and whooping cough	.....	1
Diphtheria	.....	1
Scarlet fever and nasal diphtheria	.....	1
Scarlet fever	.....	7
Broncho-pneumonia and whooping cough	.....	1
Primary broncho-pneumonia	.....	5
Erythema	.....	3
Urticaria	.....	3
Dermatitis	.....	1
Parotid abscess	.....	1
Otorrhoea	.....	5
Diarrhoea and vomiting	.....	1
No evidence of infectious disease	.....	7
TOTAL		65

Actually, 540 true cases of measles were treated in the wards including—

Notified as scarlet fever	... ..	12
Notified as diphtheria	... ..	9
Notified as rubella	... ..	4
Notified as whooping cough	... ..	3

Concurrent infections occurred as follows:—

Concurrent measles and whooping cough	.....	14
Concurrent measles and scarlet fever	.....	3
Concurrent measles, scarlet fever and diphtheria	.....	2
Concurrent measles and diphtheria	.....	5
Concurrent measles and carrier of virulent diphtheria bacillus	.....	2
Concurrent measles and dysentery	.....	1
TOTAL		27

These 27 cases are included in the measles age-sex table.



The principal complications were as follows:—

Onset.	In Patients who recovered.	In Patients who died.
Broncho-pneumonia before admission	101	31
Broncho-pneumonia after admission	7	3
Otitis media before admission	34	—
Otitis media after admission	42	1
Enteritis before admission	23	3
Enteritis after admission	10	—
Bronchitis	24	—
Laryngitis	5 (including one intubated).	—
Convulsions	1	2
Encephalitis	1	1
Cerebral abscess	—	1
Septicaemia from cellulitis	—	1
Endocarditis	1	—
<b>TOTALS</b>	<b>249</b>	<b>43</b>

The 249 complications mentioned above occurred in 69 patients who recovered.

Of the 540 patients found to be suffering from measles 142 were complicated by pneumonia, and of these, 34 died. In 132 cases pneumonia was present on admission to hospital, and in 10 cases it developed after admission.

77 cases were complicated by otitis media and of these, one died. In 34 cases otorrhoea was present on admission to hospital, and in 43 cases it developed after admission.

37 deaths occurred among the measles patients, the cause of death being:—

Broncho-pneumonia	25
Broncho-pneumonia and concurrent whooping cough	2
Broncho-pneumonia and convulsions due to whooping cough ; concurrent measles	1
Broncho-pneumonia and enteritis	3
Broncho-pneumonia and concurrent diphtheria	1
Broncho-pneumonia ; cerebral abscess ; septic thrombosis	1
Broncho-pneumonia and concurrent scarlet fever	1
Concurrent scarlet fever—uncomplicated	1
Encephalitis	1
Septicaemia from cellulitis	1
<b>TOTAL</b>	<b>37</b>

Table showing age and sex of measles patients.

Age group.	0—1	1—2	2—3	3—4	4—5	5—10	10—20	Over 20	Totals.
<b>RECOVERED.</b>									
Males	27	56	46	37	25	55	5	1	252
Females	23	53	48	35	25	49	8	10	251
<b>DIED.</b>									
Males	5	10	2	1	—	1	1	—	20
Females	4	4	5	—	1	3	—	—	17
<b>TOTALS</b>	<b>59</b>	<b>123</b>	<b>101</b>	<b>73</b>	<b>51</b>	<b>108</b>	<b>14</b>	<b>11</b>	<b>540</b>

Hospital mortality 6.8 per cent.

### WHOOPING COUGH.

In all, 201 patients were admitted with a notified diagnosis of whooping cough and of these, 15 required revision of diagnosis as follows:—

No evidence of whooping cough	...	...	9
Broncho-pneumonia	...	...	1
Bronchitis; diarrhoea and vomiting	...	...	1
Measles	...	...	3
Laryngeal diphtheria	...	...	1
Total			15

Actually, 191 true cases of whooping cough were treated in the wards including—

Notified as diphtheria	...	...	3
Notified as measles	...	...	1
Notified as dysentery	...	...	1

Concurrent infections occurred as follows:—

Concurrent whooping cough and measles	.....	.....	4
Concurrent whooping cough and chickenpox	.....	.....	1
Concurrent whooping cough and carrier of virulent diphtheria bacillus	.....	.....	1
TOTAL	.....	.....	6

These 6 cases are included in the whooping cough age-sex table.

The principal complications were as follows:—

Onset.	In Patients who recovered.	In Patients who died.
Broncho-pneumonia before admission	29	19
Broncho-pneumonia after admission	3	7
Lobar-pneumonia before admission	3	—
Lobar-pneumonia after admission	—	—
Convulsions	2	15
Enteritis before admission	4	—
Enteritis after admission	6	1
Otorrhoea before admission	5	—
Otorrhoea after admission	6	—
Tonsillitis	9	—
Bronchitis before admission	18	—
Bronchitis after admission	4	—
Albuminuria	3	—
Empyema	—	1
Gastritis	—	1
TOTALS	92	44

The 92 complications mentioned above occurred in 63 patients who recovered. Of the 191 patients found to be suffering from whooping cough 61 were complicated by pneumonia and of these, 26 died. In 51 cases pneumonia was present on admission to hospital, and in 10 cases pneumonia developed whilst the patient was under treatment.



31 deaths occurred amongst whooping cough patients, the cause of death being:—

Broncho-pneumonia	14
Broncho-pneumonia and empyema	1
Broncho-pneumonia and convulsions	11
Convulsions	4
Acute gastritis	1
<b>TOTAL</b>	<b>31</b>

Table showing age and sex of whooping cough patients.

	Age group.	0—1	1—2	2—3	3—4	4—5	5—10	10—20	Over 20	Totals.
RECOVERED.										
Males		24	19	12	10	8	8	—	—	81
Females		19	15	14	10	6	13	2	—	79
DIED.										
Males		7	3	5	1	—	1	—	—	17
Females		6	2	5	—	1	—	—	—	14
<b>TOTALS</b>		<b>56</b>	<b>39</b>	<b>36</b>	<b>21</b>	<b>15</b>	<b>22</b>	<b>2</b>	<b>—</b>	<b>191</b>

Hospital mortality 16.2 per cent.

#### ERYSIPELAS.

In all, 119 patients were admitted with a notified diagnosis of erysipelas, and of these, 6 required revision of diagnosis as follows:—

Cellulitis	3
Impetigo	1
Radium erythema	1
Naso-pharyngeal diphtheria	1
<b>Total</b>	<b>6</b>

Actually, 115 true cases of erysipelas were treated in the wards including—

Notified as scarlet fever	1
Notified as diphtheria	1

The site of erysipelas was as follows:—

Limbs	13
Face and scalp	95
Face and limbs	1
Trunk	4
Generalised	2
<b>Total</b>	<b>115</b>

The principal complications were as follows:—

Onset.	In Patients who recovered.		In Patients who died.
Pneumonia	...	2	3
Pleural effusion	...	1	—
Laryngitis	...	1	—
Tonsillitis	...	1	—
Otorrhoea	...	4	—
Cervical adenitis	...	2	—
Suppurative parotitis	...	—	1
Abscesses	...	4	—
Myocarditis	...	—	2
Relapse	...	4	—
	Totals	19	6

The 19 complications mentioned above occurred in 13 patients who recovered.

Two cases admitted with broncho-pneumonia and myocarditis, died. One case admitted with suppurative parotitis developed pneumonia, and died.

12 deaths occurred among the erysipelas patients of whom 2 had recovered from erysipelas before death—

Erysipelas healed	Uncomplicated erysipelas	6
	Broncho-pneumonia and myocarditis	2
	Broncho-pneumonia and suppurative parotitis	1
	Carcinoma of antrum and erysipelas	1
	Peritonitis—ruptured gall bladder (Carcinoma of gall bladder)	1
	Buccal epithelioma	1
TOTAL		12

Table showing age and sex of erysipelas patients.

	Age group	0—5	5—10	10—15	15—25	25—45	Over 45	Totals.
RECOVERED.								
Males		11	2	4	5	9	19	50
Females		8	3	—	10	11	21	53
DIED.								
Males		3	—	—	—	1	2	6
Females		—	—	—	—	2	4	6
TOTALS		22	5	4	15	23	46	115

Hospital mortality 10.4 per cent.]



## RUBELLA.

46 cases were admitted with a notified diagnosis of rubella and of these, 6 required revision of diagnosis as follows:—

Measles	...	...	...	...	3
Measles and concurrent whooping cough	...	...	...	...	1
Scarlet fever	...	...	...	...	1
No evidence of infectious disease	...	...	...	...	1
					<hr/>
Total					6
					<hr/>

93 cases were finally diagnosed as rubella.

This figure was made up as follows:—

Notified as rubella	...	...	...	40
Notified as scarlet fever	...	...	...	21
Notified as measles	...	...	...	29
Notified as diphtheria	...	...	...	2
Notified as miscellaneous observation	...	...	...	1
				<hr/>
Total				93
				<hr/>

All cases recovered without complications.

Concurrent infection occurred as follows:—

Concurrent rubella and whooping cough	.....	.....	.....	1
Concurrent rubella; whooping cough and nasal diphtheria	.....	.....	.....	1
Concurrent rubella and measles	.....	.....	.....	1

These 3 cases are included in the 93 cases diagnosed as rubella.

## CHICKENPOX.

24 cases were admitted with a notified diagnosis of chickenpox and of these, 3 required revision of diagnosis to septic spots: 26 cases were finally diagnosed as chickenpox. This figure was made up of 21 cases notified as chickenpox, 3 cases notified as scarlet fever and 2 notified as diphtheria.

One of the above 26 cases was a carrier of virulent diphtheria bacillus. One case was a fulminant case with very profuse rash and marked septicaemia and toxæmia, and died.

Hospital mortality (1 death) 3.8 per cent.

## ENTERIC FEVER.

18 patients were admitted with a notified diagnosis of enteric fever and of these, 7 required revision of diagnosis as follows:—

Enteritis	...	...	...	...	3
Acute tuberculosis	...	...	...	...	1
Chronic appendicitis	...	...	...	...	1
Diarrhoea	...	...	...	...	1
No evidence of a carrier of B. Typhosum	...	...	...	...	1
					<hr/>
Total					7
					<hr/>

In the 11 cases diagnosed as enteric fever the causative organism was B. Typhosum in 5 cases, of which one died and B. Paratyphosum B. in 6 cases—all of which recovered.

Hospital mortality (1 death) 9.1 per cent.

## DYSENTERY.

20 cases were admitted with a notified diagnosis of dysentery and of these, 10 required revision of diagnosis as follows:—

Gastro-enteritis and broncho-pneumonia	...	1
Enteritis	...	5
Enteritis and concurrent whooping cough	...	1
No evidence of infectious disease	...	3
		—
Total		10
		—

The case of enteritis and whooping cough has been included among the whooping cough cases. All 10 cases diagnosed as dysentery recovered.

## DIARRHOEA.

4 cases of diarrhoea were notified and revision of diagnosis to "No evidence of diarrhoea" was required in one case; 6 cases were finally diagnosed as diarrhoea, 3 admitted as such, one notified as measles, one as whooping cough and one as enteric fever.

The causative organism was—

B. Sonné	...	...	...	...	2
B. Morgan	...	...	...	...	1
Undetermined	...	...	...	...	3
					—
Total					6
					—

2 cases died—one of these complicated by bronchitis.

Hospital mortality (2 deaths) 33.3 per cent.

## MUMPS.

12 cases were notified as suffering from mumps and of these, 4 required revision of diagnosis as follows:—

Adenitis	...	...	...	...	3
Severe faucial diphtheria	...	...	...	...	1
					—
Total					4
					—

All the 8 cases finally diagnosed as mumps recovered without complications.

## MENINGITIS.

5 cases were admitted with a notified diagnosis of meningitis and all required revision of diagnosis as follows:—

Retropharyngeal abscess.
Ethmoiditis and infection of antra.
Erythema.
Double otitis media.
No evidence of disease.

## ENCEPHALITIS LETHARGICA.

1 case was notified; this died and after a post-mortem the diagnosis was revised to septic leptomeningitis following pneumonia.



## PNEUMONIA.

2 cases were notified as suffering from pneumonia and in both cases the diagnosis was confirmed and the patients recovered. 8 cases were finally diagnosed as primary pneumonias—this figure was made up as follows:—

Notified as pneumonia	...	...	...	2
Notified as measles	...	...	...	5
Notified as whooping cough	...	...	...	1
Total				8

Hospital mortality (1 death) 12.5 per cent.

## PEMPHIGUS.

1 case was admitted with a notified diagnosis of pemphigus; the diagnosis was confirmed and the patient recovered. 2 cases were finally diagnosed as pemphigus—one being admitted for observation: both patients recovered.

## VINCENT'S ANGINA.

1 case was notified, the diagnosis was confirmed and the patient recovered.

## MISCELLANEOUS OBSERVATION.

8 cases were admitted for observation; 1 case died.

Diagnoses were made as follows:—

No evidence of infectious disease	.....	.....	.....	.....	.....	2
Rubella	.....	.....	.....	.....	.....	1
Acute anterior poliomyelitis	.....	.....	.....	.....	.....	1
Broncho-pneumonia; empyema following measles and concurrent whooping cough	.....	.....	.....	.....	.....	1
Septic lept meningitis	.....	.....	.....	.....	.....	1 (died).
Suppurative cervical adenitis	.....	.....	.....	.....	.....	1
Pemphigus acutus	.....	.....	.....	.....	.....	1
TOTAL						8

## SUMMARY OF MISCELLANEOUS DISEASES.

Disease.	Number of cases notified.	Diagnosis revised.	Notified as another disease.	Actual number of cases.	Died.	Case Mortality.
Measles	577	65	28	540	37	6.8%
Whooping Cough	201	15	5	191	31	16.2%
Erysipelas	119	6	2	115	12	10.4%
Rubella	46	6	53	93	—	—
Chickenpox	24	3	5	26	1	3.8%
Enteric Fever	18	7	—	11	1	9.1%
Dysentery	20	10	—	10	—	—
Diarrhoea	4	1	3	6	2	33.3%
Mumps	12	4	—	8	—	—
Meningitis	5	5	—	—	—	—
Encephalitis lethargica	1	1	—	—	—	—
Pneumonia	2	—	6	8	1	12.5%
Pemphigus	1	—	—	2	—	—
Vincent's angina	1	—	—	1	—	—
Miscellaneous conditions	8	4	—	4	1	—
TOTAL	1,039					

## OPERATIONS.

Nature of operation.	Number.
Mastoidectomy	35
Incisions—Cellulitis, etc.	14
Tonsillectomy and adenoidectomy	11
Laparotomy	9
Rib resection	1
Osteotomy	2
Miscellaneous	10
Total	82

The miscellaneous cases include minor incisions, removal of nails, application of plasters, etc.

The surgeons made 53 visits to perform the above operations, and they also attended on several occasions when no operations were performed.

## LABORATORY.

The following table contains a summary of the work conducted in the hospital Laboratory during 1935:—

Examinations.	Number.
Specimens for B. diphtheriae (positive)	1,106
Specimens for B. diphtheriae (negative)	2,672
Specimens for Haemolytic streptococci (positive)	79
Specimens for Haemolytic streptococci (negative)	70
Bacteriological examination of faeces	58
Bacteriological examination of blood	3
Cytological examination of blood	50
Widal tests on blood	3
Bacteriological examination of cerebro-spinal fluid	9
Cytological examination of cerebro-spinal fluid	9
Chemical examination of cerebro-spinal fluid	3
Examination of urine qualitative	3,169
Examination of sputum for tubercle bacilli (positive)	1
Examination of sputum for tubercle bacilli (negative)	9
Miscellaneous examinations	62
TOTAL	7,303

## STAFF PROPHYLAXIS.

All new members of the nursing and domestic staff were Schick and Dick tested soon after entering the hospital.

Number Schick and Dick tested	93
Schick positive	42
Acquired immunity after course of prophylactic	34
Left hospital before acquiring immunity	7
One did not acquire immunity after immunisation	1
Dick positive	35
Acquired immunity after course of prophylactic	25
Left hospital before acquiring immunity	4
Developed scarlet fever before completion of immunisation	6

One nurse who developed scarlet fever after one dose of scarlet fever prophylactic again developed scarlet fever four weeks after negative Dick test—following full course of immunisation.

One member of the nursing staff developed mild nasal diphtheria after completion of immunisation. The Schick test was still positive after treatment with antitoxin but became negative after a further course of immunisation.



## INCIDENCE OF SICKNESS AMONGST THE STAFF.

			Nursing Staff.	Domestic Staff.	Total.
Diphtheria	.....	.....	1	—	1
Scarlet fever	.....	.....	6	—	6
Measles	.....	.....	2	—	2
Rubella	.....	.....	5	—	5
Mumps	.....	.....	1	—	1
Shingles	.....	.....	1	—	1
Tonsillitis	.....	.....	23	3	26
Myocarditis	.....	.....	—	1	1
Influenza	.....	.....	2	—	2
Catarrhal jaundice	.....	.....	2	—	2
Pleurodynia	.....	.....	1	—	1
Nephritis	.....	.....	1	—	1
Appendicitis	.....	.....	1	—	1
Cellulitis	.....	.....	1	—	1
Suppurating adenitis	.....	.....	3	1	4
Furunculosis	.....	.....	4	—	4
Eczema	.....	.....	4	—	4
Rheumatism	.....	.....	1	—	1
Sciatica	.....	.....	—	1	1
Arthritis	.....	.....	—	2	2
Phlebitis	.....	.....	—	1	1
			—	—	—
TOTALS	.....	.....	59	9	68
			—	—	—

The health of the staff was, on the whole, very satisfactory. It will be noted that the tonsillitis rate continues to fall, being 23 among the members of the nursing staff during 1935 as compared with 36 during 1934; 37 during 1933, and 67 during 1932 the last year when the nurses were overcrowded in temporary quarters.

## DISINFECTION.

The following table gives details of the work done during 1935.

Houses disinfected after smallpox	...	...	...	...	...	...	...	0
Houses disinfected after scarlet fever	...	...	...	...	...	...	...	65
Houses disinfected after diphtheria	...	...	...	...	...	...	...	1,512
Houses disinfected after enteric fever	...	...	...	...	...	...	...	11
Houses disinfected after tuberculosis	...	...	...	...	...	...	...	1,582
Houses disinfected after cancer (on request)	...	...	...	...	...	...	...	77
Houses disinfected after miscellaneous diseases (on request)	...	...	...	...	...	...	...	33
Beds disinfected	...	...	...	...	...	...	...	2,488
Miscellaneous articles of clothing and bedding	...	...	...	...	...	...	...	29,871
Library books disinfected	...	...	...	...	...	...	...	1,783
Public conveyances disinfected	...	...	...	...	...	...	...	16

## REPORT ON TUBERCULOSIS FOR THE YEAR 1935.

(By Dr. G. B. DIXON, Chief Clinical Tuberculosis Officer).

## INSTITUTIONS AND ACCOMMODATION PROVIDED.

The Birmingham Public Health Committee maintains a single Dispensary which serves the whole of the City, and in addition they provide 613 beds for the treatment of pulmonary and other forms of tuberculosis, and for the observation and investigation of suspected cases of tuberculosis.

The Anti-Tuberculosis Centre is centrally situated in the city and is open for five days during the week and on Saturdays for half the day. A small number of sessions during the week is reserved for patients attending for treatment, supervision and observation. Most of the sessions during the week are set apart for consultations and examinations. In addition, many consultations and examinations are undertaken at the homes of patients by members of the medical staff. The medical staff of the Dispensary, with one exception, is also responsible for the medical work of the various municipal sanatoria.

The beds for treatment, etc., are contained in four sanatoria and are allocated in the following way :—

## YARDLEY GREEN ROAD SANATORIUM :—

		Beds	Total	Grand Total
Adults : Male :	Observation .....	10		
	Treatment, intermediate and advanced cases of all forms of tuberculosis .....	156		
			166	
Female :	Observation .....	8		
	Treatment, early and intermediate cases of all forms of tuberculosis .....	44		
			52	
Children :	Observation .....	18		
	Treatment, all stages and for all forms of tuberculosis .....	101		
			119	
				337

## WEST HEATH SANATORIUM :—

Adults : Male :	Advanced and intermediate cases of pulmonary tuberculosis .....	24		
Female : Ditto .....		96		
				120

## SALTERLEY GRANGE SANATORIUM :—

Adults : Male :	Early cases of pulmonary tuberculosis .....	38		
Female : Ditto .....		30		
				68

## ROMSLEY HILL SANATORIUM :—

Adults : Male :	Early and intermediate cases of pulmonary tuberculosis .....	57		
Female : Ditto .....		31		
				88
				613

The treatment undertaken in the different sanatoria includes lung collapse by means of artificial pneumothorax, treatment by gold salts, vaccines, etc., etc. In suitable cases other forms of surgical treatment are advised.

At the Yardley Green Road Sanatorium, which is situated  $3\frac{1}{2}$  miles from the centre of the city, the patients are housed in eight detached pavilions. The kitchens, domestic stores, nurses' home, and medical officers' apartments, are included in a large central building.



The cooking is undertaken in a central kitchen, and food is conveyed to the four dining halls by means of electric trolleys.

The sanatorium buildings include an administrative office block, in which there is a laboratory. In addition, there are occupational therapy shops, a schoolroom, and three recreation halls, a department for X-ray work, and a section for artificial light treatment, which is used both for in-patients and out-patients.

The clinical blocks at West Heath Sanatorium, which is situated 8 miles from the centre of the city, consist of one pavilion for male cases and four pavilions for female cases, two of which have recently been re-constructed and fitted with large verandahs. There is, in the process of construction, a rest room for female patients and there are two recreation rooms, one for males and one for females. In addition, there is a laboratory, and an occupational therapy shop.

Romsley Hill Sanatorium, which is situated 12 miles from the centre of the city, is a two storey building, and contains a number of cubicles for one, two, three, four and six beds. There are also several wards for ten and eleven beds. In addition, there are two detached pavilions, one containing eight beds and another containing four. There are two recreation rooms, one for men and one for women, and the sanatorium has two occupational therapy shops and a laboratory.

Salterley Grange Sanatorium, situated in the Cotswolds, 40 miles from the centre of the city, consists of a large administrative block containing residential quarters for the staff, and in addition, a kitchen, stores, and dining hall for the patients. There are two recreation rooms for patients, and a laboratory. The accommodation for patients includes forty single bed rooms, eleven rooms accommodating two beds, and two rooms which accommodate three patients.

In addition to the patients in the City Sanatoria, during the year there were 12 adult males, 10 adult females, and 113 children suffering from the non-pulmonary forms of tuberculosis, who were admitted to various hospitals, including the Royal Cripples' Hospitals, Moseley Hall, and the Children's Hospital, etc., for the treatment of non-pulmonary forms of tuberculosis. A grant towards the maintenance of these patients was made by the Public Health Committee.

During the year, the home visits made by the medical staff numbered 1,049. The personal consultations between members of the medical staff and practitioners in the city, during the year was 253, in addition there were 6,302 other consultations with medical practitioners during the year.

Many patients attended at the City Sanatorium, Yardley Green Road as out-patients, for artificial light treatment; during the year under review, the number of attendances for this purpose was 12,158.

Admissions to the Sanatoria are decided upon only after examination at the Centre or at the patients' homes, and the sanatorium to which the patients are sent depends on the condition of the disease, etc. On returning from Sanatoria, patients are re-examined at the Centre, and many old patients who discontinue treatment, are re-examined from time to time.

The Anti-Tuberculosis Scheme includes 36 beds at Yardley Green Road Sanatorium set apart for the purpose of observation and investigation:—

- 10 are reserved for boys.
- 10 are for adult males.
- 8 are for adult females.
- 8 are for female children.

The provision of these beds facilitates a correct diagnosis, which would in some cases be difficult to arrive at without them.

The scheme is also fortunate in having a large number of beds set apart for the care and treatment of the "hospital" type of case, the male patients being admitted to Yardley Green Road Sanatorium, and the females to West Heath Sanatorium. These beds are essential upon humanitarian grounds, and in addition, are a prophylactic asset in connection with the public health work of the City. For this reason, it is desirable that as large a percentage as possible of the annual deaths occurring in the city from tuberculosis, should take place in beds controlled by the public health department.

During the period under review, there were 817 deaths in the city from all forms of tuberculosis, and of this number no less than 375 or 46 per cent. occurred in beds in the municipal sanatoria and hospitals controlled by the Public Health Committee. A small number of beds is reserved in one of the Municipal Hospitals for tuberculous patients who require obstetric care.

## TUBERCULOSIS STATISTICS, 1935.

The notified cases of tuberculosis showed a decrease during the year 1935, the number being 1,213 as compared with 1,398 in the year 1934.

The number of cases and deaths occurring in past years is shown in the following table:—

TUBERCULOSIS (all forms).					
		New Cases	Rate per 1,000	Deaths	Death-rate per 1,000
1901-1905 (Average)		—	—	1,384	1.78
1906-1910	"	—	—	1,235	1.51
1911-1915	"	—	—	1,307	1.51
1916-1920	"	3,343	3.73	1,261	1.40
1921-1925	"	2,060	2.20	1,046	1.12
1926-1930	"	1,588	1.63	1,016	1.04
1931-1935	"	1,459	1.43	928	0.91
1922	...	1,961	2.12	1,049	1.13
1923	...	2,166	2.32	1,006	1.08
1924	...	2,129	2.22	1,055	1.10
1925	...	1,797	1.89	1,083	1.14
1926	...	1,704	1.78	1,024	1.06
1927	...	1,607	1.66	1,017	1.05
1928	...	1,606	1.64	965	0.99
1929	...	1,538	1.57	1,066	1.09
1930	...	1,483	1.51	1,008	1.03
1931	...	1,679	1.66	1,070	1.06
1932	...	1,517	1.49	954	0.93
1933	...	1,486	1.45	983	0.96
1934	...	1,398	1.36	814	0.79
1935	...	1,213	1.17	817	0.79

The case-rate per 1,000 of the population is the lowest yet recorded and the death-rate equals the lowest yet recorded, that for 1934.

The relative prevalence and mortality from pulmonary and other forms of tuberculosis shown separately is indicated in the two following tables:—

## PULMONARY TUBERCULOSIS.

		New Cases	Rate per 1,000	Deaths.	Death-rate per 1,000
1901-1905 (Average)		—	—	1,039	1.34
1906-1910	"	—	—	947	1.16
1911-1915	"	—	—	1,057	1.22
1916-1920	"	2,936	3.27	1,062	1.18
1921-1925	"	1,739	1.86	903	.96
1926-1930	"	1,327	1.36	881	.91
1931-1935	"	1,225	1.20	824	.80
1919	...	2,704	2.92	1,019	1.10
1920	...	2,609	2.87	843	.93
1921	...	1,969	2.15	890	.97
1922	...	1,669	1.80	899	.97
1923	...	1,785	1.91	860	.92
1924	...	1,780	1.85	934	.97
1925	...	1,491	1.57	930	.98
1926	...	1,421	1.48	905	.94
1927	...	1,343	1.39	857	.89
1928	...	1,361	1.39	840	.86
1929	...	1,270	1.30	918	.94
1930	...	1,242	1.26	884	.90
1931	...	1,397	1.38	932	.92
1932	...	1,266	1.24	849	.83
1933	...	1,250	1.22	874	.85
1934	...	1,187	1.15	732	.71
1935	...	1,023	.99	732	.71

The case-rate per 1,000 of the population is the lowest yet recorded and the death-rate equals the lowest rate yet recorded, that for 1934.



## NON-PULMONARY TUBERCULOSIS.

		New Cases.	Rate per 1,000	Deaths	Death-rate per 1,000
1901-1905 (Average)		—	—	345	.45
1906-1910	"	—	—	289	.35
1911-1915	"	—	—	249	.29
1916-1920	"	407	.45	199	.22
1921-1925	"	321	.34	143	.15
1926-1930	"	260	.27	135	.13
1931-1935	"	234	.23	104	.10
1919	... ..	412	.45	169	.18
1920	... ..	365	.40	158	.17
1921	... ..	278	.30	145	.16
1922	... ..	292	.32	150	.16
1923	... ..	381	.41	146	.16
1924	... ..	349	.36	121	.13
1925	... ..	306	.32	153	.16
1926	... ..	283	.30	119	.12
1927	... ..	264	.27	160	.17
1928	... ..	245	.25	125	.13
1929	... ..	268	.27	148	.15
1930	... ..	241	.25	124	.13
1931	... ..	282	.28	138	.14
1932	... ..	251	.25	105	.10
1933	... ..	236	.23	109	.11
1934	... ..	211	.21	82	.08
1935	... ..	190	.18	85	.08

The number notified as suffering from non-pulmonary forms of tuberculosis is the lowest yet recorded and the death-rate equals the lowest rate yet recorded, that for 1934.

The cases notified in 1935 comprise the varieties shown in the next table, which also indicates the number of cases in which information was obtained from the death certificate alone without previous notifications.

The total number of deaths is also shown.

		New Cases Notified in 1935.	Cases not Notified before Death.	Total Deaths.
Pulmonary tuberculosis	... ..	1,023	36	732
Tubercular meningitis	... ..	17	16	36
Tubercle of the abdomen	... ..	26	3	8
Tubercle of the spinal column	... ..	25	1	4
Tubercle of the joints	... ..	36	—	3
Disseminated tuberculosis	... ..	8	9	24
Tubercle of the glands and other parts		78	4	10

In the following table are shown the numbers of cases of some forms of tuberculosis notified during the year, with the sex and age period at which they occurred.

## CASES OF TUBERCULOSIS NOTIFIED DURING THE YEAR 1935.

## CLASSIFIED ACCORDING TO SEX AND AGE.

	0—	1—	2—4	5—9	10—14	15—19	20—24	25—34	35—44	45—54	55—64	65—74	75 up.	TOTALS.
Pulmonary tuberculosis	M. 2	4	17	24	16	52	76	102	92	97	74	18	4	578
	F. 3	3	7	23	12	63	106	102	55	41	23	6	1	445
Tubercular meningitis	M. 2	1	4	1	—	—	—	—	—	—	—	—	—	8
	F. —	2	2	2	3	—	—	—	—	—	—	—	—	9
Tuberculosis of peritoneum and intestines	M. —	—	1	1	1	1	3	3	1	2	1	—	—	14
	F. —	—	—	2	1	2	3	2	2	—	—	—	—	12
Other forms of tuberculosis	M. 2	3	11	14	6	6	10	7	4	4	1	—	—	68
	F. 1	2	5	18	13	2	9	13	6	4	4	2	—	79



In the subsequent table are shown the number of notifications and the number of deaths arranged for males and females according to the various age groups, relating to both pulmonary and non-pulmonary forms of tuberculosis :—

## TUBERCULOSIS—1935.

PULMONARY.	Male.		Female.	
	Cases.	Deaths.	Cases.	Deaths.
0—	2	1	3	3
1—	4	3	3	—
2—4	17	1	7	—
5—14	40	6	35	8
15—24	128	65	169	83
25—44	194	172	157	125
45—64	171	161	64	60
65—74	18	30	6	9
75 and upwards	4	2	1	3
	578	441	445	291
	Cases, Total	1,023		
	Deaths, Total	732		
NON-PULMONARY.				
0—	4	5	1	3
1—	4	1	4	4
2—4	16	10	7	5
5—14	23	10	39	15
15—24	20	2	16	2
25—44	15	6	23	7
45—64	8	6	8	6
65—74	—	—	2	2
75 and upwards	—	1	—	—
	90	41	100	44
	Cases, Total	190		
	Deaths, Total	85		
	GRAND TOTALS, Cases	1,213		
	Deaths	817		

The tuberculosis case-rates and death-rates in other towns for all forms of tuberculosis, are given in the following tables :—

## TUBERCULOSIS (All Forms).

## Comparative Figures in 11 Largest Towns.

	Case-rate per 1,000.	Death-rate per 1,000.
London	1.5	0.8
Glasgow	2.2	1.1
Birmingham	1.2	0.8
Liverpool	2.5	1.1
Manchester	1.7	1.0
Sheffield	2.8	0.8
Leeds	1.5	0.9
Edinburgh	1.4	0.7
Bristol	1.4	0.8
Hull	1.5	0.9
Bradford	1.1	0.7

It will be seen that Birmingham compares favourably with other great towns.

TABLE VIII.

CASES OF TUBERCULOSIS NOTIFIED DURING THE YEAR 1935, CLASSIFIED ACCORDING TO WARDS.

DISEASE	Acocck's Green	All Saints'	Aston	Balsall Heath	Bromford	Duddeston and Nechells	Edgbaston	Erdington	Gravelly Hill	Hall Green	Handsworth	Harborne	King's Norton	Ladywood	Lozells	Market Hall	Moseley and King's Heath	Northfield	Perry Barr	Rotton Park	Saint Bartholomew's	St. Martin's and Dentend	St. Mary's	St. Paul's	Saltley	Sandwell	Selly Oak	Small Heath	Soho	Sparkbrook	Sparkhill	Stechford	Washwood Heath	Vardley	Not located	City		
Pulmonary tuberculosis	30	41	34	47	29	60	13	23	26	29	22	18	28	34	28	18	16	21	28	36	54	57	51	36	23	9	27	22	36	36	21	20	26	14	10	1023		
Tubercular meningitis	—	—	2	1	—	1	1	1	—	—	—	—	1	1	1	1	1	1	—	—	—	1	1	2	—	—	—	—	—	1	1	—	—	—	—	17		
Tuberculosis of peritoneum and intestines	3	—	1	—	1	—	—	—	1	—	—	2	1	1	—	—	1	2	1	—	—	1	1	1	1	—	2	—	—	—	1	3	1	1	—	—	26	
Tuberculosis of spinal column	2	—	—	—	—	—	2	—	1	—	1	—	—	—	—	1	—	—	1	1	1	—	1	1	4	1	1	—	—	—	4	—	—	2	1	—	25	
Tuberculosis of joints	4	—	1	2	1	3	1	1	2	—	—	—	—	2	1	1	—	3	1	1	3	—	2	—	2	1	—	1	—	—	—	—	1	1	1	—	—	36
Tuberculosis of other organs	—	2	2	1	1	6	2	3	2	2	2	3	5	1	2	1	4	4	2	4	4	3	3	1	1	—	3	2	1	2	2	3	2	1	1	1	78	
Disseminated tuberculosis	—	—	—	1	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	1	1	—	1	—	—	—	—	—	—	8	



## TUBERCULOSIS IN THE CITY WARDS.

The distribution of cases of tuberculosis over the wards of the City is shown in the next table:

## DISTRIBUTION OF TUBERCULOSIS.

		Case-rate per 1,000 in 1935			
		Pulmonary	Non-Pulmonary	Total	
Central Wards	St Paul's	1.07	0.15	1.22	Average 1.59
	St. Mary's	1.72	0.27	1.99	
	Duddeston and Nechells	1.65	0.30	1.95	
	St. Bartholomew's	1.66	0.28	1.94	
	St. Martin's & Deritend	1.54	0.14	1.68	
	Market Hall	0.82	0.18	1.00	
	Ladywood	1.16	0.17	1.33	
Middle Wards	Lozells	0.96	0.14	1.10	Average 1.18
	Aston	1.01	0.18	1.19	
	Washwood Heath	0.86	0.20	1.06	
	Saltley	0.78	0.31	1.09	
	Small Heath	0.75	0.14	0.89	
	Sparkbrook	1.18	0.30	1.48	
	Balsall Heath	1.43	0.15	1.58	
	Edgbaston	0.48	0.22	0.70	
	Rotton Park	1.15	0.19	1.34	
	All Saints	1.32	0.06	1.38	
Outer Ring	Soho	1.47	0.04	1.51	Average 0.96
	Sandwell	0.44	0.10	0.54	
	Handsworth	0.85	0.12	0.97	
	Perry Barr	0.74	0.13	0.87	
	Erdington	0.82	0.18	1.00	
	Gravelly Hill	0.85	0.20	1.05	
	Bromford	1.07	0.11	1.18	
	Stechford	0.85	0.21	1.06	
	Yardley	0.54	0.12	0.66	
	Acocks Green	0.86	0.26	1.12	
	Hall Green	0.77	0.08	0.85	
	Sparkhill	0.64	0.18	0.82	
	Moseley & King's Heath	0.42	0.16	0.58	
	Selly Oak	0.93	0.24	1.17	
	Kings' Norton	0.93	0.23	1.16	
	Northfield	0.57	0.25	0.82	
	Harborne	0.72	0.20	0.92	

The average for the Central Wards shows a definite reduction compared with 1934 and there is also a reduction in the Middle and Outer Ring.

## WORK OF THE TUBERCULOSIS VISITORS.

There are ten nurses engaged as tuberculosis visitors in the Department, each having charge of a definite part of the City. It is the duty of these visitors to make enquiry into every notified case of tuberculosis and afterwards to keep in touch by periodical visiting and carry out any after-care, etc., that may be needed.

At the end of 1935 there were 5,938 cases of tuberculosis on the current Register all of which have to be visited at more or less regular intervals. The visits paid last year were as follows:—

Primary visits (to new cases)	...	...	1,405
Routine visits (to old and new cases)	...	...	19,406
Special visits and re-visits	...	...	8,137

At the first visit to new cases, it was found that 671 patients out of the 1,405 were sharing a bed with some other person; while 421 shared a bedroom but had a separate bed. Efforts are always made to get a separate bedroom or if this is out of the question at least a separate bed for every patient. Unfortunately owing to lack of accommodation or unwillingness on the part of the patient, this is not always possible.

It is the duty of these visitors to bring to the notice of the Department every case of overcrowding in relation to pulmonary tuberculosis for representation to the Estates Committee for special treatment if considered advisable by the medical staff.

## ACTION UNDER LEGAL ENACTMENTS.

No action was necessary during the year under the Public Health (Prevention of Tuberculosis) Regulations, 1925, relating to Tuberculous employees in the milk trade, nor was section 62 of the Public Health Act, 1925, employed to remove any patient compulsorily to a sanatorium.

## DISINFECTION.

The disinfection of 1,584 houses was undertaken during the year where some member of the family had suffered or died from tuberculosis, or changed his or her address.

## CARE WORK.

The Anti-Tuberculosis Centre undertakes a considerable amount of care work.

During the year under survey, no less than 125 persons received beds and bedding from the Department either on loan or hire purchase. In addition to this, 28 sleeping chalets were loaned to patients whose garden accommodation and health were such that they could make use of them.

Through the representations of the Care Committee, we were able to obtain better housing accommodation for the families of 76 of our patients, and in 166 cases the Care Committee made grants of clothing and other necessities to our patients and their families.

In addition to this, quite a large number of recommendations on behalf of our patients, were made to the Public Assistance Department and to charitable organizations in the city.

The Care Department has been instrumental in assisting patients or their families to obtain Christmas dinners, suitable treatment for ailments other than tuberculosis, convalescent and dental treatments and grants of food were made to 106 patients.

The close intercommunication existing between the Tuberculosis Section and the School Medical Officer's Department and the Infant Welfare Medical Officer has provided opportunities for the Care Committee to function in a wider sphere than would have been possible otherwise.

## ANTI-TUBERCULOSIS CENTRE.

## ATTENDANCES AND EXAMINATIONS.

The total number of attendances at the Anti-Tuberculosis Centre during the year 1935, made by patients for the purpose of diagnosis, consultation, observation, advice and treatment, was 34,465.

This total is made up of 3,479 attendances for supervision, observation and advice; 8,714 attendances for examination; 8,000 attendances for X-ray examination; and 14,272 attendances in the artificial light department. The X-ray work included 5,912 screen examinations, and 2,088 films.

Attendances for supervision, observation and treatment	...	...	...	...	3,479
Attendances for consultation and examination	...	...	...	...	8,714
Attendances for light treatment					
Yardley Green Road Sanatorium	...	...	...	...	12,158
151, Great Charles Street	...	...	...	...	2,114
X-Ray examinations (screen)	...	...	...	...	5,912
X-Ray examination (film)	...	...	...	...	2,088
					<hr/>
					34,465

During the year 1935, some 1,023 new cases of pulmonary tuberculosis were notified to the Medical Officer of Health, and of this number 930 or 90.9 per cent. were examined at the Centre. There were also 190 cases of non-pulmonary tuberculosis notified during the year, of which 131 or 68.9 per cent. were examined at the Centre.



The number of patients on the Dispensary Register on 1st January was 5,262; the number of persons transferred to other areas during the year, and the cases "lost sight of" numbered 221, the number transferred to us from other areas and the "lost sight of" cases returned was 82.

At the end of the year 948 insured persons were receiving domiciliary treatment at the recommendation of the medical staff.

#### TREATMENT RECOMMENDED.

In the following table are set out treatments recommended to patients examined at the Anti-Tuberculosis Centre during the year.

				First Examinations.			Re-examinations.	
				Newly notified.	Contacts.	Suspects.	Old Cases.	Suspects or Contacts.
Sanatorium treatment	...	...	...	518	77	242	407	10
Dispensary treatment	...	...	...	3	2	3	16	—
Supervision	...	...	...	13	—	7	979	5
Out-patient light treatment	...	...	...	8	1	1	20	1
Domiciliary treatment	...	...	...	120	8	50	1,512	—
No treatment required	...	...	...	219	1,073	1,290	407	670
				881	1,161	1,593	3,341	686

The table above shows that a large percentage of new cases notified during the year received a primary period of Sanatorium treatment. This is an advantage to the patient inasmuch as his physical condition is benefited, and he acquires practical experience of the treatment which it would be to his advantage to carry out in a modified form in his own home afterwards.

#### CLASSIFICATION OF PATIENTS ACCORDING TO GROUP OF DISEASE.

The following tables show the classification of the patients examined according to Group of disease; adults and children are shown separately.

##### ADULTS.

				First Examinations.			Re-examinations.	
				Newly notified.	Contacts.	Suspects.	Old Cases.	Suspects or Contacts.
Group I	...	...	...	59	12	61	557	2
Group II	...	...	...	236	28	109	1,499	1
Group III	...	...	...	234	7	80	535	—
Group IV	...	...	...	69	1	12	44	—
No Treatment required	...	...	...	175	367	933	168	179
				773	415	1,195	2,803	182

##### CHILDREN.

				First Examinations.			Re-examinations.	
				Newly notified.	Contacts.	Suspects.	Old Cases.	Suspects or Contacts.
Group I	...	...	...	11	56	12	271	9
Group II	...	...	...	7	5	6	82	1
Group III	...	...	...	3	3	1	11	—
Group IV	...	...	...	35	4	10	24	1
No Treatment required	...	...	...	52	678	369	150	493
				108	746	398	538	504

In certain instances patients included in the various groups are suffering from other forms of tuberculosis in addition to pulmonary, but for convenience are classified as pulmonary cases when that type of the disease is present in association with other types.

In the succeeding tables are set out briefly some details of those who were referred to us as contacts and suspects. Amongst those classified here as suspects are many who had been living in contact with known cases of tuberculosis, and who were, therefore, possibly referred to us mainly for this reason only.

The contacts have been divided into various groups, and they have also been arranged to show the numbers in each group that came from homes where there had been contact with patients suffering from tuberculosis associated with a positive sputum.

#### SUSPECTS EXAMINED DURING THE YEAR 1935.

Total—1,593.

Definitely tuberculous ...	291
No signs of tuberculosis ...	1,302

#### CONTACTS EXAMINED DURING THE YEAR 1935.

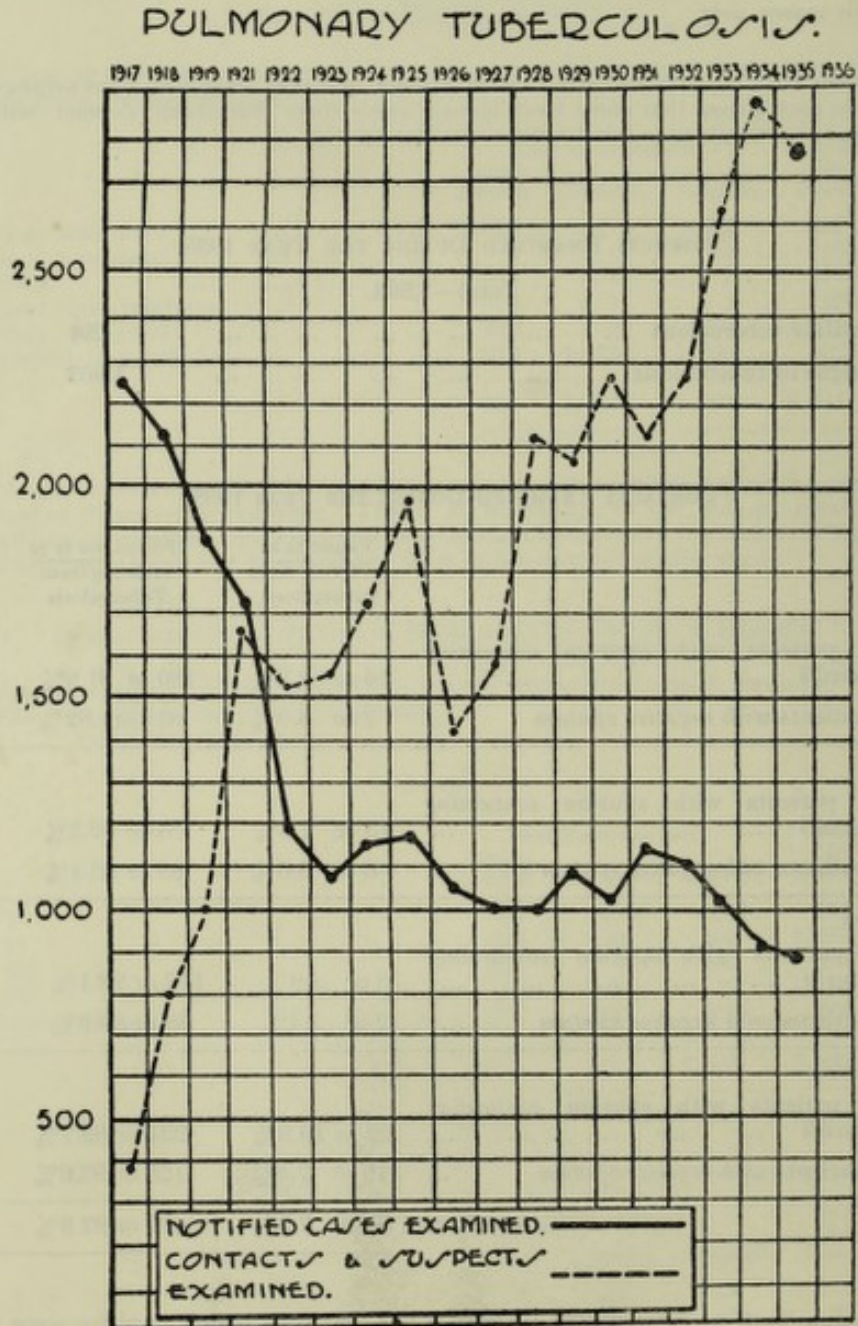
AGES.	Found <i>to be</i> suffering from Tuberculosis.	Found <i>not to be</i> suffering from Tuberculosis.	TOTALS.
<i>0 to 5 years.</i>			
Contacts to patients with sputum containing <i>tubercle bacilli</i> ...	16 or 8.2%	180 or 91.8%	196
Contacts to patients with <i>negative sputum</i> ...	7 or 8.0%	81 or 92%	88
<i>6 to 10 years.</i>			
Contacts to patients with sputum containing <i>tubercle bacilli</i> ...	13 or 7.8%	154 or 92.2%	167
Contacts to patients with <i>negative sputum</i> ...	6 or 6.6%	85 or 93.4%	91
<i>11 to 15 years.</i>			
Contacts to patients with sputum containing <i>tubercle bacilli</i> ...	3 or 1.9%	162 or 98.1%	165
Contacts to patients with <i>negative sputum</i> ...	2 or 3.4%	56 or 96.6%	58
<i>16 years and over.</i>			
Contacts to patients with sputum containing <i>tubercle bacilli</i> ...	27 or 10.3%	234 or 89.7%	261
Contacts to patients with <i>negative sputum</i> ...	10 or 7.4%	125 or 92.6%	135
Grand Totals	84 or 7.2%	1,077 or 92.8%	1,161

The Mantoux Test, an intra-dermal tuberculin test, has been largely used for some years past on most children of 10 years and under coming to the Centre for examination whether as "notified", "suspect" or "contact" cases. A positive result indicates that the patient has been infected with tuberculosis, but a negative result is of greater value, because, in the majority of instances it eliminates infection and therefore disease (tuberculosis). During the year under review 732 children were tested with tuberculin at the Centre of which 372 gave a positive result and 360 a negative result. This does not include children dealt with in the Sanatorium.



"CONTACTS," "SUSPECTS" AND "NOTIFIED CASES."

In the graph below are shown the number of "contacts" and "suspects" and "notified cases" examined over a series of years.



The work of the Tuberculosis Department is greatly facilitated when patients in the General Hospitals (voluntary and municipal) who are suffering from tuberculosis, are advised to apply to us for further treatment, and for the examination of their families as "contacts".

Unless the patient realises that he is suffering from tuberculosis when he leaves the hospital, he is sometimes disinclined to accept further treatment in a sanatorium, because he imagines the time spent in the hospital is all the treatment he is likely to require.

During the past year 279 notifications of tuberculosis were received from the Municipal and Public Assistance Hospitals, having an aggregate number of beds equivalent to 4,412. Of this number, 83 were acutely ill and could not be examined for a variety of reasons. 196 were examined and of this number 21 refused treatment, 143 were admitted to Sanatoria and 32 were recommended for treatment other than Sanatorium.

#### FAMILY HISTORY.

A survey of the family history has been made of 1,053 patients examined who were definitely tuberculous, and the results are shown in the following tables:—

##### ADULTS.

	Newly Notified.	Suspects.	Contacts with Definite Disease.
No family history of tuberculosis ... ..	502 or 81.7%	216 or 78.2%	—
Father suffering or suffered from tuberculosis	21 or 18.8%	11 or 18.3%	5 or 12.9%
Mother ditto ... ..	8 or 7.1%	8 or 13.3%	4 or 10.2%
Brother or sister ... ..	32 or 28.5%	21 or 35%	8 or 20.5%
1 Relative other than above, school fellow or intimate friend ... ..	30 or 26.8%	11 or 18.3%	12 or 30.8%
Two or more relatives ... ..	21 or 18.8%	9 or 15%	10 or 25.6%
<b>TOTAL ... ..</b>	<b>112</b>	<b>60</b>	<b>39</b>

##### CHILDREN.

	Newly Notified.	Suspects.	Contacts with Definite Disease.
No family history of tuberculosis ... ..	35 or 71.4%	19 or 65.5%	—
Father suffering or suffered from tuberculosis	2 or 14.3%	2 or 20%	23 or 50%
Mother ditto ... ..	3 or 21.5%	3 or 30%	10 or 21.7%
Brother or sister ditto ... ..	4 or 28.5%	—	6 or 13%
1 Relative other than above, school fellow or intimate friend ... ..	4 or 28.5%	1 or 10%	3 or 6.5%
Two or more relatives ... ..	1 or 7.1%	4 or 40%	4 or 8.7%
<b>TOTAL ... ..</b>	<b>14</b>	<b>10</b>	<b>46</b>

#### DENTAL TREATMENT.

The part-time services of a dental surgeon are utilised at the Centre for the necessary treatment of our patients. The treatment is conservative in type, and consists mainly of extractions, fillings, and scalings. Patients who wish to provide their own dentures can do so under conditions advantageous to themselves by arrangement with the dental surgeon. During the year there were 459 extractions, 15 fillings, 2 repairs, and dentures were supplied in 12 instances. The condition of the teeth and gums of most of our patients seen during the year, so far as dental caries, masticatory power, and the state of the gums were concerned, is shown in the following table:—



## CONDITION OF TEETH AND GUMS.

Number of Teeth with infected pulp chambers.			Masticatory power in molars and bicuspsids.			State of Gums.		
None.	1 to 4.	More than 4.	Six or More.	Less than 6	None.	Healthy	Gingivitis	Pyorrhoea.
2,465	2,222	272	3,626	846	723	4,071	483	405

## LABORATORY WORK.

A very large number of sputum examinations is undertaken during the year on behalf of persons who are referred for an opinion. If the first examination gives a negative result, subsequent and repeated specimens are examined.

As soon as a patient is referred for examination, a sputum outfit, with instructions and a request for its early return, is posted. Amongst the new adult patients examined for the first time during the year, in whom a definite diagnosis of pulmonary tuberculosis was made, i.e., 826, there were 542 or 65.6 per cent. who presented tubercle bacilli in their sputum. Amongst the total number of children primarily examined in whom a definite diagnosis of pulmonary tuberculosis was made, i.e. 104, there were 9 or 8.6 per cent. who presented tubercle bacilli in their sputum.

The difficulty of obtaining sputum from children, even when it exists, is recognised, so all children, whether admitted to sanatorium for observation or treatment, have the faeces and a gastric lavage examined for acid fast bacilli, they are also submitted to a Mantoux tuberculin test. All adult patients who enter the observation pavilions have a blood sedimentation test undertaken and have the faeces examined for acid fast bacilli in addition, when sputum is persistently negative or cannot be procured.

At the Centre during the year 4,910 specimens of sputum were examined, and 62 other specimens were also examined. At Yardley Green Road Sanatorium 6,080 specimens of sputum were examined during the year. Romsley Hill Sanatorium records show that 1,075 specimens of sputum were examined during the year, and at West Heath Sanatorium 1,350 specimens of sputum were examined. Salterley Grange Sanatorium returns show that 850 specimens of sputum were examined during the year.

If sputum is not procurable, or if it is repeatedly negative for tubercle bacilli, faeces should be examined for acid and alcohol fast bacilli; the results obtained are often helpful.

In a series of 2,276 examinations of faeces for tubercle bacilli from patients in a sanatorium, some admitted for treatment, others for observation, either with no sputum, or a sputum that was repeatedly negative for tubercle bacilli, seventy-eight or 3.4 per cent. were found to contain acid and alcohol fast bacilli. In twenty-five of these cases no sputum was available whilst the patient remained in sanatorium, in four cases the sputum was persistently negative for tubercle bacilli, and in the remaining forty-nine patients tubercle bacilli were eventually found in the sputum, in every instance on dates subsequent to their discovery in the faeces, examinations of the sputum having been continued at weekly intervals for periods varying between one and ten weeks prior to their discovery. Of the seventy-eight patients quoted, twenty-five came to us as contact cases, twenty-four as suspects, and twenty-nine were grouped cases of pulmonary tuberculosis.

In no instance were faeces examined before the patient had been in residence for at least one week, during which the only milk consumed by the patient was pasteurised. In none of these patients were signs or symptoms present suggesting the presence of tuberculosis in the digestive tract.

In children under 10 years of age, who rarely expectorate, sputum for examination is difficult to obtain. To meet this, the contents of a stomach lavage, taken first thing in the morning from a fasting stomach, may be investigated for acid fast bacilli. Whether or not these are found on smear examination alone, some of the centrifuged deposit should be injected into a guinea-pig to confirm or refute that the organisms are tubercle bacilli.



Tabulated below are the results of an examination for tubercle bacilli of five-hundred stomach washes from children of 0-10 years of age. Two-hundred-and-twenty-six of the children were contacts, one hundred and eighty-seven were suspects, and eighty-seven were referred to us as notified cases of tuberculosis.

STOMACH WASHES FROM 500 CHILDREN AGED 0—10 YEARS.  
POSITIVE RESULTS FOR TUBERCLE BACILLI.

	Notified Cases.	Suspect Cases.	Contact Cases.	TOTALS.
Ages 0 to 3 years	2	3	5	10
Ages 4 to 6 years	3	2	12	17
Ages 7 to 10 years	1	3	7	11
	6	8	24	38

It will be seen that tubercle bacilli were found in thirty-eight or 7.6 per cent. and were absent in four-hundred-and-sixty-two or 92.4 per cent. of the washes. In three instances only were tubercle bacilli found after smear examination alone, subsequently confirmed by guinea-pig injection; in the remaining thirty-five washes tubercle bacilli were not found on smears examination, being demonstrated only after guinea-pig injection. Six of the children who gave a positive stomach wash were referred to us as notified cases, eight as suspects, and twenty-four were contacts to patients suffering from pulmonary tuberculosis.

In every instance these children gave a positive reaction to an intradermal tuberculin test.

These figures suggest the desirability of careful investigation for every child contact, and indicate the need for a higher standard of examination than has been generally undertaken in the past, if disease is not to go unrecognised.

They make one suspicious too that certain infants and young children suffering from the so-called benign forms of intra-thoracic tuberculosis may be foci of infection, requiring segregation if other children in the household are to be protected from infection.

COMPLETED CASES.

During the year, 2,087 patients completed a course of treatment, or supervision, etc., at the Centre, of whom 1,686 were adults and 401 were children.

In the next table the working capacity at the commencement and at the end of a completed period of treatment is given for those patients who were examined during the year. The Group of disease quoted was determined at the first examination.

WORKING CAPACITY OF PATIENTS ATTENDING CENTRE

	GROUP I. Adults. Children.		GROUP II. Adults Children		GROUP III. Adults Children		GROUP IV. Adults Child- ren.	
Unimpaired working capacity becoming impaired ...	2	1	—	—	—	—	3	5
Impaired capacity for work becoming unimpaired ...	213	150	187	36	19	1	36	56
Impaired capacity becoming totally incapacitated	5	1	42	3	20	—	1	—
Impaired capacity for work persisting ...	151	52	485	16	128	—	34	32
Total incapacity becoming impaired	29	1	100	6	76	1	19	7
Total incapacity becoming unimpaired	15	5	38	5	13	3	13	14
Total incapacity persisting ...	4	1	19	2	29	3	5	—
	419	211	871	68	285	8	111	114

In the following tables are set out, as briefly as possible, the main points in connection with an investigation undertaken to ascertain the conditions of those past patients who received treatment at the Centre in the years 1913-1935 inclusive.



PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO  
WERE TREATED FOR PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the return relates.	Previous to 1926												1926			1927			1928			1929			1930																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3	Class T.B. minus.	Group 1	Group 2	Group 3



PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO WERE TREATED FOR PULMONARY TUBERCULOSIS.

[illegible]



**PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO WERE TREATED FOR NON-PULMONARY TUBERCULOSIS.**

Condition at the time of the last record made during the year to which the return relates.		Previous to 1926					1926					1927					1928					1929					1930																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
		Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
Remaining on Dispensary Register on 31st December.	Disease Arrested	Adults	M.	F.	Children	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO WERE TREATED FOR NON-PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the return relates		1931				1932				1933				1934				1935													
		Bones and Joints		Abdominal		Other Organs		Peripheral Glands		Total		Bones and Joints		Abdominal		Other Organs		Peripheral Glands		Total		Bones and Joints		Abdominal		Other Organs		Peripheral Glands		Total	
Remaining on Dispensary Register on 31st December	Disease Arrested	Adults	M.	1	2	—	—	3	2	1	—	—	3	1	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	
			F.	2	—	—	1	3	3	1	—	—	1	3	2	—	—	1	3	—	—	—	—	—	—	—	—	—	—	—	
		Children	5	4	—	9	18	2	1	1	2	6	3	—	—	2	5	4	—	—	2	6	—	—	—	—	—	—	—	—	
	Disease not Arrested	Adults	M.	11	—	2	3	16	5	5	6	4	20	15	—	3	5	23	16	2	12	3	33	13	7	10	5	35	42		
			F.	7	3	1	1	12	13	5	1	5	24	16	10	6	9	41	16	6	4	9	35	14	7	12	9	48			
		Children	15	3	2	8	28	13	2	3	9	27	30	7	4	14	55	16	4	3	11	34	19	3	6	20	48				
	Total on Dispensary Register at 31st December			41	12	5	22	80	38	15	11	21	85	67	17	13	31	128	52	13	19	25	109	46	17	28	34	125			
	Transferred to Pulmonary			4	3	—	—	7	2	—	1	1	4	5	—	2	3	10	2	—	1	2	5	—	—	—	—	—	—		
	Not now on Dispensary Register and reasons for removal therefrom	Discharged as recovered	Adults	M.	2	—	—	—	2	2	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
				F.	—	1	1	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Children			1	—	—	4	5	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Lost sight of, or removed from Dispensary Register		Adults	M.	3	5	3	10	21	6	3	1	2	12	5	—	3	2	10	3	—	1	1	5	1	—	1	—	2	—		
			F.	3	—	1	1	5	6	3	3	—	12	2	—	1	—	3	2	—	1	—	3	—	—	—	—	—	—	—	
		Children	1	2	—	—	3	1	1	1	1	4	—	1	2	—	3	2	2	3	2	—	7	1	2	—	—	3	—	—	
Dead		Adults	M.	5	2	—	1	8	4	—	—	1	5	1	—	—	—	1	—	1	1	—	2	—	—	1	—	1	—	—	
			F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		Children	15	10	5	18	48	20	7	5	4	36	8	1	6	2	17	7	4	5	1	17	2	2	2	2	—	6	—	—	
GRAND TOTALS			56	22	10	40	128	58	22	16	25	121	75	18	19	33	145	59	17	24	26	126	48	19	30	34	131				



## SUMMARY.

1. No less than 90.9 per cent. of the total number notified in the City as suffering from pulmonary tuberculosis were examined at the Centre.
2. 1,049 patients were visited and examined in their own homes by the Medical Staff.
3. During the year 5,912 screen examinations were made in the radiological section, and films were taken in 2,088 cases.
4. Amongst new patients suffering from pulmonary tuberculosis examined during the year 65.6 per cent. of the adults presented tubercle bacilli in their sputum, and 8.6 per cent. of the children.
5. Of the 930 primary cases suffering from pulmonary tuberculosis examined during the year, 22.6 per cent. were classified as Group I., 42 per cent. were classified as Group II; and 35.3 per cent. as Group III.
6. Of the patients treated during the periods 1913-1935, some 12,419 presented tubercle bacilli in their sputum. Of this number 25 per cent. are known to be still alive; 67 per cent. are known to be dead and 8 per cent. have been lost sight of.
7. During the same periods, 12,987 patients whose sputum contained no tubercle bacilli were treated. Of this number 62 per cent. are known to be alive; 20 per cent. are known to be dead and 18 per cent. have been lost sight of.
8. During this period (1913-1935) 1,438 patients suffering from non-pulmonary tuberculosis were treated. Of this number 75 per cent. are known to be still alive; 14 per cent. are known to be dead, and 11 per cent. have been lost sight of.

## TOTAL NUMBERS TREATED IN SANATORIA AND DURATION OF STAY.

During the year 1935, there were 1,651 patients discharged from all the Sanatoria. Included in this number are 121 patients suffering from non-pulmonary tuberculosis who were treated in Institutions subsidised by the Health Department. Of the 1,651 patients, 800 were adult males, 552 were adult females, and 299 were children.

The average duration of stay, excluding those admitted for observation and who, proving negative, remained only for a short time, and excluding those "hospital" cases with advanced disease who died within a few days of their admission, was 119.7 days for adult males, 141.4 days for adult females, 211.4 days for male children, and 189.07 days for female children.

## OCCUPATIONAL THERAPY IN SANATORIA.

In the Municipal Sanatoria attention is paid to the question of occupational therapy with the object of interesting and employing suitably a certain number of the patients whose condition admits of it. The fitness of the patient to engage in occupational therapy is always judged by the medical officer, who has the patient under constant supervision. The occupation to be followed and the number of hours to be devoted to it are both decided upon by the doctor after careful consideration. At Salterley Grange Sanatorium, the physical condition of the patients is usually so good, and their disease so early that temporary employment suitable to their needs can be found in the gardens, and upon the estate. At West Heath and Yardley Green Road Sanatoria, facilities for occupational therapy have existed for many years. At West Heath the patients are employed in basket making. Patients at Romsley Hill Sanatorium are instructed in basket and leather work.

At Yardley Green Road Sanatorium patients are instructed in basket making, leather work of different kinds, and in mat making, etc., and considerable development has taken place here during recent years.

It should be noted that the children attending the Sanatorium School at Yardley Green Road are taught various forms of handicraft work, including leather work, pewter work, raffia work, basket making, etc. Many children who are confined to bed are also taught handicrafts. Schooling at Yardley Green Road Sanatorium is also provided for suitable children who are ambulant or immobilised, three school teachers being employed on the staff.

RESULTS OF TREATMENT OF PATIENTS DISCHARGED FROM RESIDENTIAL INSTITUTIONS  
DURING THE YEAR 1935.

Classification on admission to the Institution.		Condition at time of discharge.	Duration of Residential Treatment in the Institutions.												Totals.			Grand Totals	
			Under 3 months but exceeding 28 days.			3—6 months.			6—12 months.			More than 12 months.							
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		
PULMONARY TUBERCULOSIS.	Class T.B. minus.	Quiescent ...	11	10	3	5	9	1	4	1	3	—	2	2	20	22	9	51	
		Not quiescent	87	77	17	30	25	38	6	8	28	4	2	5	127	112	88	327	
		Died in Institution	—	1	3	—	2	—	1	—	1	—	—	—	1	3	4	8	
	Class T.B. plus. GROUP I.	Quiescent ...	—	—	—	—	1	—	—	1	—	1	—	—	1	2	—	3	
		Not quiescent	5	3	—	1	5	—	—	—	—	1	—	—	7	8	—	15	
		Died in Institution	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	1	
	Class T.B. plus. GROUP II.	Quiescent ...	1	—	—	2	—	—	—	1	—	—	1	—	3	2	—	5	
		Not quiescent	106	45	—	49	42	1	22	25	—	3	5	—	180	117	1	298	
		Died in Institution	9	7	1	7	1	2	2	1	2	—	2	1	18	11	6	35	
	Class T.B. plus. GROUP III.	Quiescent ...	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	
		Not quiescent	114	39	1	47	42	1	24	14	1	5	4	—	190	99	3	292	
		Died in Institution	42	16	1	20	11	—	5	10	—	9	5	1	76	42	2	120	
	TOTALS (Pulmonary) ...		376	198	26	161	138	43	64	62	35	23	21	9	624	419	113	1156	
	NON-PULMONARY TUBERCULOSIS.	BONES & JOINTS.	Quiescent ...	1	—	3	—	2	4	2	—	2	2	2	7	5	4	16	25
			Not quiescent	2	4	23	3	3	15	2	3	8	1	1	10	8	11	56	75
Died in Institution			—	—	—	—	1	—	—	1	—	—	—	2	—	2	2	4	
ABDOM- INAL.		Quiescent ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		Not quiescent	—	—	1	1	1	3	—	—	—	—	—	1	1	1	5	7	
		Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
OTHER ORGANS.		Quiescent ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		Not quiescent	2	2	—	—	1	—	—	—	—	2	—	—	4	3	—	7	
		Died in Institution	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	1	
PERIPH- ERAL GLANDS.		Quiescent ...	—	—	1	—	—	—	—	—	1	—	—	—	—	—	2	2	
		Not quiescent	1	2	2	1	2	3	—	—	—	—	—	1	2	4	6	12	
		Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
TOTALS (Non-Pulmonary) ...		6	8	30	5	10	25	4	4	11	5	4	21	20	26	87	133		



Note—"Quiescent" cases are those which have no symptoms of tuberculosis, and no signs of tuberculous disease except such as are compatible with a completely healed lesion, and in which sputum, if present, is free from tubercle bacilli.

#### PATIENTS ADMITTED TO SANATORIA FOR OBSERVATION AND INVESTIGATION.

The beds utilised for the purpose of observation are at Yardley Green Road Sanatorium. Observation patients are those who, after careful and repeated examinations at the Centre, are found to be indefinite, either as to the absence or presence of tuberculosis or as to its activity or otherwise when present, and are usually admitted for a period varying from two to four weeks. Of the 1,530 patients discharged from the Sanatoria, 220 or 14.3 per cent. were admitted primarily for observation to Yardley Green Road Sanatorium. The medical findings are shown in the following table:—

Diagnosis on discharge from observation.	For Pulmonary Tuberculosis.						For Non-pulmonary Tuberculosis.						TOTALS.		
	Stay under 4 weeks.			Stay over 4 weeks.			Stay under 4 weeks.			Stay over 4 weeks.					
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Tuberculous ...	7	13	14	7	6	32	—	1	1	1	3	1	15	23	48
Non-tuberculous ...	11	6	13	28	20	33	—	1	2	3	3	4	42	30	52
Doubtful ...	4	3	2	—	—	—	—	—	1	—	—	—	4	3	3
TOTALS ...	22	22	29	35	26	65	—	2	4	4	6	5	61	56	103

#### CLASSIFICATION OF PATIENTS' DISEASE.

In this table the patients are scheduled according to the classification of the Ministry of Health, as follows:—

- Group I. Cases with slight constitutional disturbance, if any, e.g., there should not be marked acceleration of pulse nor elevation of temperature, except of very transient duration; gastro-intestinal disturbance or emaciation, if present, should not be excessive. The obvious physical signs should be of very limited extent, as follows:—Either present in one lobe only, and in the case of an apical lesion of one upper lobe not extending below the second rib in front and not exceeding an equivalent area in any one lobe; or where these physical signs are present in more than one lobe, they should be limited to the apices of the upper lobes and should not extend below the clavicle and the spine of the scapula.  
No complication (tuberculous or otherwise) of prognostic gravity should be present. A small area of dry pleurisy should not exclude a case from this group.
- Group III. Cases with profound systemic disturbance or constitutional deterioration; with marked impairment of function either local or general, and with little or no prospect of recovery. All cases with grave complications whether tuberculous or not, should be classified in this Group, e.g., diabetes, tuberculosis of larynx or intestines, etc.,
- Group II. All cases which cannot be placed in Group I and III.  
Patients suffering from non-pulmonary tuberculosis are classified according to the site of the lesion and are placed under Group IV.

## SPUTUM RESULTS AFTER SANATORIUM TREATMENT.

Of the 1,253 adult patients discharged from the Sanatoria suffering from pulmonary tuberculosis during the year, 879 or 70.1 per cent. presented tubercle bacilli in their sputum whilst in the Sanatoria.

Sanatoria	No sputum persisting	No sputum becoming T.B.—	No sputum becoming T.B. +	T.B.— persisting	T.B.— becoming T.B. +	T.B.— becoming no sputum	T.B. + persisting	T.B. + becoming T.B.—	T.B. + becoming no sputum
Yardley Green Road Sanatorium	68	6	—	107	1	16	343	5	11
Romsley Hill Sanatorium	13	1	—	26	1	12	169	18	12
Salterley Grange Sanatorium	45	—	—	11	—	14	53	8	20
West Heath Sanatorium	13	2	—	28	3	12	211	13	11
	139	9	—	172	5	54	776	44	54

## OCCUPATIONS.

In the following table the occupation of both male and female patients are shown :—

	Males.	Females
Out-door occupations	70	—
Domestic Occupations	13	229
Sedentary Occupations	61	51
Commercial Occupations	18	22
Engineering Occupations	157	78
Metal Trades	148	50
Building Trade	47	—
Other Trades	228	81
	742	511

## GAIN OR LOSS IN WEIGHT.

Amongst a total of 1,396 patients discharged from Sanatoria after treatment, many of whom were advanced hospital cases admitted for the purpose of prophylaxis, 109 or 7.8 per cent. remained stationary, and 1,197 or 85.8 per cent. gained weight in amounts varying from 1 to 40 lbs.

## WORKING CAPACITY.

The working capacity of patients is shown in the following tables :—

	Adult Males.	Adult Females.	Children.	Totals
Impaired working capacity becoming unimpaired	19	26	38	83
Impaired capacity for work persisting	398	242	72	712
Impaired capacity for work becoming totally incapacitated	16	22	2	40
Total incapacity for work becoming impaired	101	79	9	189
Total incapacity for work becoming unimpaired	4	4	4	12
Total incapacity for work persisting	38	43	4	85
Died in Sanatoria	166	95	14	275
	742	511	143	1,396



## SUMMARY.

1. The average duration of patients' stay for all the Sanatoria was 119.7 days for adult males; 141.4 days for adult females; 211.4 days for male children, and 189.07 for female children.
2. Of the patients from all Sanatoria no less than 14.3 per cent. passed through the observation beds at Yardley Green Road Sanatorium.
3. 39.6 per cent. of the patients were in Group III; 40.9 per cent. were in Group II; 15.1 per cent. were in Group I; and 4.4 per cent. were in Group IV.
4. There were 70.1 per cent. of all patients discharged from Sanatoria who presented tubercle bacilli in their sputum whilst in the Sanatorium.
5. 1,197 or 85.8 per cent. of all patients discharged from Sanatoria gained weights in amounts varying from 1 to 40lbs.
6. Some 375 or 46 per cent. of the deaths from tuberculosis occurred in "Hospital" beds in various Sanatoria and Hospitals controlled by the Public Health Committee.

## TREATMENT IN THE LIGHT CLINIC.

## PATIENTS COMPLETING TREATMENT DURING 1935.

The total number of patients completing a satisfactory course of treatment during the year 1935, was 57.

This number includes 19 adult males, 16 adult females, 11 male children, and 11 female children.

These completed cases consisted of:—

	Adult Males.	Adult Females.	Male Children.	Female Children
Tuberculous joints and bones	6	4	2	4
Tuberculosis of abdomen	1	5	1	2
Cervical adenitis	2	5	5	5
Lupus	2	1	3	—
Sinus	1	—	—	—
Other organs	7	1	—	—
	19	16	11	11

## PATIENTS CONTINUING TREATMENT.

On the 31st December, 1935, 170 were continuing treatment in the Light Clinics and many showed an improvement in their condition.

# VENEREAL DISEASES.

The City Council maintain three centres for the treatment of venereal diseases, one for men, women and children at the Birmingham General Hospital, one for children at the Children's Hospital, and one for mothers and young children in the same building as that occupied as a Maternity and Child Welfare Centre in Lancaster Street. In addition cases of venereal disease come under treatment at the Venereal Diseases Clinic maintained in connection with the Women's Venereal Diseases Ward in the Birmingham Infirmary.

The Lancaster Street Clinic, opened on July 1st, 1935, takes the place of the Aston Street clinic. The latter building was both unsatisfactory and structurally almost dangerous, so that the opening of the new and admirable clinic premises, consisting of a Maternity and Child Welfare Centre on the ground floor, and a Venereal Clinic on the first floor, has been a source of great relief from more than one standpoint.

At these centres 428 new cases of syphilis, 20 of soft chancre, 882 of gonorrhoea and 1,887 cases suffering from conditions other than venereal disease were seen in 1935, as follows:—

	New Cases.			Other Conditions.
	Syphilis.	Soft Chancre.	Gonorrhoea.	
General Hospital .....	353	20	799	1,238
Children's Hospital .....	14	—	4	23
Aston Street Centre (now Lancaster St.) .....	26	—	36	615
Birmingham Infirmary .....	35	—	43	11
Total .....	428	20	882	1,887

The new cases coming under treatment for the first time, and not having had previous treatment at other Centres, are indicated in the following table. It should be noted that cases who, attending our clinics for the first time, have been treated at clinics elsewhere, have been excluded for each year, thus giving substantial variation from the figures given in previous reports. The present figures are likely to give a truer picture of the changes in incidence within the City:—

	Syphilis.	Soft Chancre.	Gonorrhoea.	Other Conditions.
1926	537	2	848	729
1927	622	4	952	861
1928	592	10	1,146	920
1929	523	9	1,200	803
1930	541	14	1,257	1,076
1931	504	1	985	1,082
1932	512	10	1,066	1,109
1933	454	19	944	1,248
1934	411*	25*	998*	1,425*
1935	428	20	882	1,887

\*These figures include those for the Birmingham Infirmary for the first time.



The total attendances for the last eight years were:—

1928	78,261
1929	78,098
1930	88,589
1931	93,280
1932	100,313
1933	103,925
1934	110,716*
1935	121,788

\*These figures include those from Birmingham Infirmary for the first time.

These figures indicate:—

- That the clinics are being visited to a steadily increasing extent by patients who prove not to have venereal disease; that is to say, they are being used in a truly preventive sense by both medical practitioners and the general public.
- That over a series of years there has been some tendency towards reduction in the number of cases of syphilis; over a period of three or four years, some tendency towards a like reduction in new cases of gonorrhoea.
- That the patients needing treatment attend with a steadily improving persistence, and undergo a correspondingly thorough treatment, as indicated by the growth in attendances in successive years.

Further particulars of the work done at the Centres in 1935 are as follows:—

	Syphilis.	Soft Chancre.	Gonorrhoea.	Other Conditions.
No. of cases under treatment, January 1st, 1935	1,179	10	691	100
New cases under treatment during year	428	20	882	1,887
Total attendances	32,249	193	77,271	12,075
Number discharged after completion of treatment and observation	137	11	552	1,729
Number transferred to other centres	64	1	153	4
Number who ceased to attend:—				
Before completion of treatment	231	7	227	—
After completion of treatment, but before final tests as to cure	50	1	139	—

Number of cases of congenital syphilis treated:—

Under 1 year of age	18
Aged 1—5 years	5
Aged 5—15 years	28
Aged 15 years and over	32
	83

#### *Publicity and Educational Work.*

A grant of £420 was paid by the Public Health Committee towards the expenses of the Birmingham Branch of the British Social Hygiene Council. The work of this Branch continues to be of the utmost value, both from the point of view of advice to the individual needing social help, and from that of the systematic instruction of the general public in the ideals and practice of social hygiene. Lectures and addresses are given to a public steadily enlarging in variety as well as in numbers.

During the year addresses were given to approximately 30,000 persons, the talks including general addresses in factories and to social and religious organisations, and to large numbers of unemployed in the occupational centres for both men and women, together with special instructional lectures to a large variety of special bodies. A large amount of personal advice continues to be given by the officers of the Branch.

Four courses of publicly advertised lectures for men and women were provided by officers of the Birmingham Branch.

## VII. MATERNITY AND CHILD WELFARE.

(Report by Dr. ETHEL CASSIE).

### CHIEF STATISTICS, 1935.

*Birth-Rate* 15.4 per 1,000. (15,911 live births).  
*Illegitimate Birth-Rate* 3.3 per cent. (530 illegitimate births).  
*Infant Mortality Rate* 64 per 1,000 live births (1,024 deaths).  
*Stillbirths* 33 per 1,000 live and stillbirths (548 stillbirths).  
*Neo-natal Mortality* 33 per 1,000 births (532 deaths). (Infant deaths in the first four weeks of life).  
*Deaths from one to two years* 9.1 per 1,000 of the age population (133 deaths).  
*Deaths from two to five years* 3.8 per 1,000 of the age population (168 deaths).  
*Maternal Mortality in Childbirth* 3.40 per 1,000 live and stillbirths (56 deaths).  
*Child Population under five* (estimated) 72,507.

### GENERAL COMMENTS.

#### *Births.*

There has been a small rise in the birth-rate, the rise occurred in the central and outer ring of wards.

#### *Infant and Child Mortality.*

The *infant mortality* has fallen from 68 per 1,000 births in 1934 to 64 in 1935.

The fall represents a decrease of 37 deaths in a total of 1,024 deaths under the age of one year, as compared with the figure for 1934.

An excess of 21 deaths occurred during the "neo-natal" period, under the age of one month, while there was a decrease of 58 deaths between one and twelve months of age, as compared with the figures for 1934.

The *neo-natal death-rate* (33.4 per 1,000 live births) is actually higher than it has been since 1924, when it was 34.6 and the five years' average 1931 to 1935 is higher than in the preceding five years' period (see table, page 114).

The number of *stillbirths* has fallen slightly, but still is equivalent to 33 per 1,000 of the live and stillbirths. The total loss of life from stillbirths and neo-natal deaths amounts to 1,080 while the deaths of infants between the age of one month and twelve months total 492.

The stillbirth rate, neo-natal deaths and maternal mortality in childbirth have closely associated factors, and show no material reduction.

The *death-rate among illegitimate infants* is again lower than in the previous year.

Some further fall has occurred in the *death-rate of children from one to two years*. The rate from *two to five years* has also fallen.

#### *Maternal Mortality in Childbirth.*

The rate has fallen somewhat, both in Birmingham and in England and Wales as a whole. The rate in certain of the larger cities has fallen during 1935 more rapidly than here, so that Birmingham's position relative to the other large cities was not so notably satisfactory as in previous years.

#### *Puerperal Sepsis and Pyrexia.*

Detailed information has been obtained in all notified cases. There has been no definite spread of infection in the practice either of midwives or of institutions.



## BIRTHS.

During 1935 there were 15,911 live births (8,059 males and 7,852 females) belonging to Birmingham, and 548 stillbirths, making a total of 16,459. The live births number 230 more than in the previous year, and were equal to a birth-rate of 15.4 against one of 15.3 in 1934. The birth-rates of the past 35 years are given in Table I in the Appendix. It will be seen that except for fluctuations during the war period, there was a steady decline in the rate from 31.4 in 1901 to 14.7 in 1933, but in 1934 and 1935 small increases were recorded.

The Birmingham birth-rate is among the higher rates in the list for the great towns, as will be seen from the figures below:—

## BIRTH-RATES IN LARGEST TOWNS.

London	...	...	...	...	13.3 per 1,000
Glasgow	...	...	...	...	19.7 "
Birmingham	...	...	...	...	15.4 "
Liverpool	...	...	...	...	20.0 "
Manchester	...	...	...	...	14.5 "
Sheffield	...	...	...	...	14.7 "
Leeds	...	...	...	...	14.8 "
Edinburgh	...	...	...	...	15.3 "
Bristol	...	...	...	...	13.8 "
Hull	...	...	...	...	18.4 "
Bradford	...	...	...	...	13.5 "

The birth-rate varied greatly in different parts of the City, as shown in the following table:—

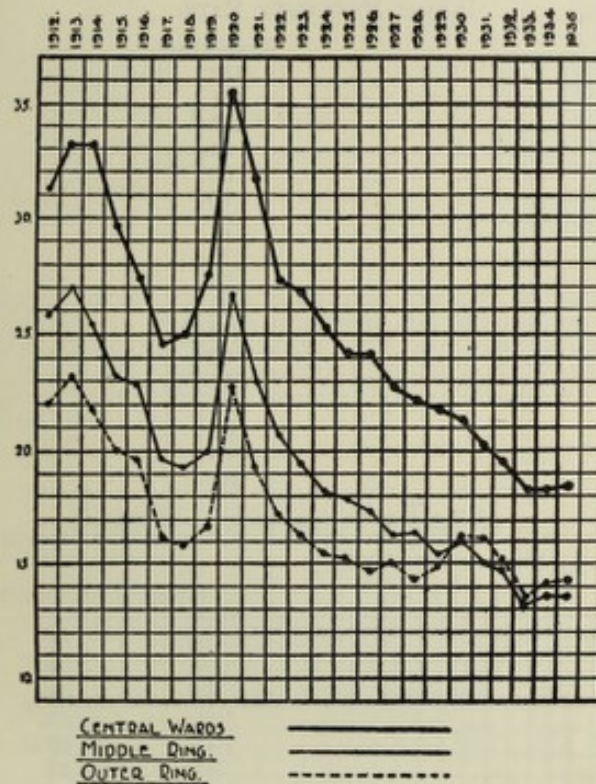
## BIRTH RATES IN WARDS.

Ward		Birth rate	
Central Wards	St. Paul's	18.4	1935 Average 18.4 1934 Average 18.2
	St. Mary's	18.5	
	Duddeston and Nechells	20.0	
	St. Bartholomew's	19.2	
	St. Martin's and Deritend	18.4	
	Market Hall	15.9	
	Ladywood	18.4	
Middle Ring	Lozells	14.8	1935 Average 13.6 1934 Average 13.6
	Aston	16.1	
	Washwood Heath	11.8	
	Saltley	13.7	
	Small Heath	13.9	
	Sparkbrook	16.2	
	Balsall Heath	13.3	
	Edgbaston	7.7	
	Rotton Park	14.4	
	All Saints	14.5	
Outer Ring	Soho	11.5	1935 Average 14.3 1934 Average 14.1
	Sandwell	11.5	
	Handsworth	12.2	
	Perry Barr	20.9	
	Erdington	14.4	
	Gravelly Hill	13.6	
	Bromford	16.3	
	Stechford	19.1	
	Yardley	15.0	
	Acock's Green	14.5	
	Hall Green	15.5	
	Sparkhill	11.8	
	Moseley and King's Heath	12.3	
	Selly Oak	12.8	
	King's Norton	12.7	
	Northfield	16.9	
	Harborne	12.0	

The figures for individual Wards are not comparable with those in previous years owing to many alterations in ward boundaries in November, 1934, but the groups (central, middle and outer) are roughly comparable with those for previous years.

The movements in the birth-rate in the three groups of wards are indicated in the diagram below.

### BIRTH RATE IN GROUPS OF WARDS.



### ILLEGITIMATE BIRTHS.

During 1935 there were 530 illegitimate births belonging to Birmingham. Of these 499 occurred in the City and 31 in other places. The illegitimate births were in the proportion of 33.3 per 1,000 of the total live births, as against 36.6 for 1934.

The figures for the past 10 years were as follows:—

	Illegitimate Births per 1,000 live births.		
1926	...	...	33.9
1927	...	...	36.5
1928	...	...	33.6
1929	...	...	36.6
1930	...	...	35.8
1931	...	...	33.8
1932	...	...	32.9
1933	...	...	36.8
1934	...	...	36.6
1935	...	...	33.3



# INFANT AND CHILD MORTALITY.

The deaths of infants under one year of age numbered 1,024 and were equal to an infant mortality rate of 64 per 1,000 births.

The infant mortality rates for a number of years are shown in the table below:—

INFANT MORTALITY RATE.					Birmingham.	England and Wales.
1901-05	...	...	...	...	157	138
1906-10	...	...	...	...	131	117
1911-15	...	...	...	...	126	110
1916-20	...	...	...	...	94	90
1921-25	...	...	...	...	80	76
1926-30	...	...	...	...	70	68
1931-35	...	...	...	...	67	62
1926	...	...	...	...	73	70
1927	...	...	...	...	75	70
1928	...	...	...	...	65	65
1929	...	...	...	...	79	74
1930	...	...	...	...	60	60
1931	...	...	...	...	71	66
1932	...	...	...	...	67	65
1933	...	...	...	...	66	64
1934	...	...	...	...	68	59
1935	...	...	...	...	64	57

The infant mortality rates in Birmingham and ten of the largest British towns for 1924 and 1934 and 1935 are shown in the sub-joined table:—

					Rate per 1,000 Live Births.		
					1924	1934	1935
London	...	...	...	...	69	67	58
Glasgow	...	...	...	...	119	98	98
Birmingham	...	...	...	...	83	68	64
Liverpool	...	...	...	...	103	81	83
Manchester	...	...	...	...	100	69	71
Sheffield	...	...	...	...	89	55	52
Leeds	...	...	...	...	108	71	64
Edinburgh	...	...	...	...	89	62	70
Bristol	...	...	...	...	71	46	43
Hull	...	...	...	...	87	63	72
Bradford	...	...	...	...	92	62	64

## INFANT MORTALITY IN WARDS.

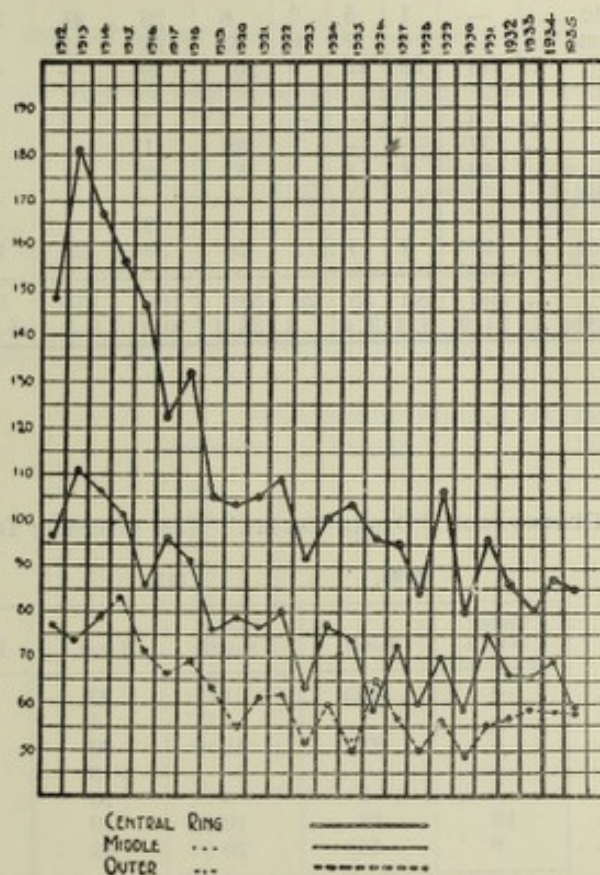
The appended table shows the infant mortality rate in each of the wards of the City in 1935. The average mortality in the groups of wards ten years ago is given for comparison.

Central Wards :	St. Paul's	...	...	...	94	Average : In 1935— 85 In 1934— 87 In 1925—104
	St. Mary's	...	...	...	98	
	Duddeston and Nechells	...	...	...	66	
	St. Bartholomew's	...	...	...	74	
	St. Martin's and Deritend	...	...	...	100	
	Market Hall	...	...	...	80	
	Ladywood	...	...	...	84	
Middle Ring :	Lozells	...	...	...	72	Average : In 1935— 59 In 1934— 69 In 1925— 74
	Aston	...	...	...	59	
	Washwood Heath	...	...	...	58	
	Saltley	...	...	...	30	
	Small Heath	...	...	...	80	
	Sparkbrook	...	...	...	51	
	Balsall Heath	...	...	...	50	
	Edgbaston	...	...	...	62	
	Rotton Park	...	...	...	64	
	All Saints	...	...	...	69	

Outer Ring :	Soho	...	...	...	...	85	Average : In 1935— 58 In 1934— 58 In 1925— 50
	Sandwell	...	...	...	...	38	
	Handsworth	...	...	...	...	45	
	Perry Barr	...	...	...	...	55	
	Erdington	...	...	...	...	49	
	Gravelly Hill	...	...	...	...	60	
	Bromford	...	...	...	...	56	
	Stechford	...	...	...	...	80	
	Yardley	...	...	...	...	67	
	Acocks Green	...	...	...	...	81	
	Hall Green	...	...	...	...	38	
	Sparkhill	...	...	...	...	47	
	Moseley and King's Heath	...	...	...	...	69	
	Selly Oak	...	...	...	...	38	
	King's Norton	...	...	...	...	63	
	Northfield	...	...	...	...	56	
	Harborne	...	...	...	...	56	

The following diagram shows the fall in infantile mortality in each of the three groups of wards during the past 24 years. It will be noted that the decrease has been much more marked in the Central areas than in the other parts of the town, and that the range in the sectional rates last year was only from 58 to 85, whereas in 1913 it was from 74 to 181. The approximation of the rates in the middle and outer rings is, perhaps, associated with the fresh distribution arising from the re-housing operations of the City.

### INFANT MORTALITY RATES





## INFANTILE MORTALITY DURING THE YEAR, 1935.

*Deaths from stated Causes in Weeks and Months under One Year of Age.*

Cause of Death.	Weeks.				Total under One Month.	Months.				Total Deaths under One Year
	0—	1—	2—	3—		1—	3—	6—	9—	
Measles ... ..	—	—	—	—	—	—	—	—	11	11
Scarlet Fever ... ..	—	—	—	—	—	—	—	—	1	1
Whooping Cough ... ..	1	—	1	—	2	6	4	7	7	26
Diphtheria and Croup ... ..	—	—	—	—	—	1	—	—	3	4
Influenza ... ..	—	—	—	—	—	1	2	1	1	5
Tuberculous Meningitis ... ..	—	—	—	—	—	—	—	2	1	3
Abdominal Tuberculosis ... ..	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Diseases ... ..	—	—	—	—	—	—	4	—	5	9
Rickets ... ..	—	—	—	—	—	—	1	1	1	3
Syphilis ... ..	—	—	—	—	—	3	—	—	—	3
Cerebro-Spinal Fever ... ..	—	—	—	—	—	—	2	3	1	6
Meningitis (not Tuberculous) ... ..	—	—	—	—	—	—	3	1	2	6
Convulsions ... ..	2	—	—	—	2	—	1	1	—	4
Bronchitis ... ..	—	1	—	—	1	4	2	1	1	9
Pneumonia (all forms) ... ..	6	6	6	7	25	26	28	30	27	136
Gastritis ... ..	—	—	—	—	—	—	—	—	—	—
Diarrhoea, Enteritis, etc. ... ..	—	1	5	2	8	26	41	26	14	115
Congenital Malformations ... ..	44	8	9	6	67	22	13	3	9	114
Premature Birth ... ..	245	25	22	9	301	29	—	—	—	330
Atrophy, Debility and Marasmus ... ..	6	1	—	—	7	7	2	1	1	18
Atelectasis ... ..	37	—	—	1	38	1	—	—	—	39
Injury at Birth ... ..	43	4	4	2	53	2	1	—	—	56
Neglect (under 3 months) ... ..	1	—	—	—	1	—	—	—	—	1
Suffocation (overlying) ... ..	—	—	1	—	1	2	1	—	—	4
Other Causes ... ..	11	6	7	2	26	30	28	15	22	121
All Causes ... ..	396	52	55	29	532	160	133	92	107	1024
Rate per 1,000 live Births ... ..	24.9	3.3	3.4	1.8	33.4	10.1	8.4	5.8	6.7	64

## INFANTS' DEATHS FROM "OTHER CAUSES." (See preceding Table).

	1935.		1934.		1933.	
	Under 1 Month.	Total.	Under 1 Month.	Total.	Under 1 Month.	Total.
Acute otitis media .....	—	28	1	33	—	7
" mastoiditis .....	—	2	—	4	—	—
" septic infections .....	4	22	12	36	5	21
New growths .....	—	—	—	3	2	4
Accidents .....	—	5	—	10	4	12
Congenital diseases .....	13	18	10	19	1	9
Other conditions .....	9	46	20	43	8	32
	26	121	43	148	20	85

The next table shows the number of infant deaths from the more prominent causes of death during the last five years.

#### INFANT DEATHS FROM DIFFERENT CAUSES.

	1935.	1934.	1933.	1932.	1931.
Measles .....	11	4	18	9	45
Whooping cough .....	26	52	14	60	37
Influenza .....	5	6	8	11	16
Tuberculosis .....	12	7	14	8	23
Convulsions .....	4	4	10	17	7
Bronchitis .....	9	16	36	19	41
Pneumonia .....	136	144	185	195	218
Diarrhoea and enteritis .....	115	127	106	122	135
Suffocation (overlying) .....	4	—	3	4	12
Congenital malformation .....	114	97	113	96	98
Premature birth .....	330	310	295	323	353
Injury at birth .....	56	61	36	48	45
Atrophy, debility and marasmus .....	18	20	20	30	56
Other causes .....	184	213	140	178	131
<b>TOTAL</b> .....	<b>1,024</b>	<b>1,061</b>	<b>998</b>	<b>1,120</b>	<b>1,217</b>

#### INFANT MORTALITY AND ILLEGITIMACY.

The following figures show the relative mortality among legitimate and illegitimate infants for the past year:—

	No. of Births.	Deaths under 1 year.	Infant mortality per 1,000.
Legitimate ...	15,381	976	63
Illegitimate ...	530	48	91

The infant mortality rates during recent years were as follows:—

	Infant Mortality Rates per 1,000 Births.			
	Legitimate.	Average.	Illegitimate.	Average.
1921	81	78	135	149
1922	82		178	
1923	69		151	
1924	81		142	
1925	76		139	
1926	70	68	150	128
1927	73		135	
1928	63		111	
1929	77		128	
1930	58		117	
1931	70	66	122	113
1932	65		125	
1933	64		119	
1934	66		106	
1935	63		91	

The infant mortality among illegitimate children has therefore dropped for the first time to a figure below 100 per 1,000 illegitimate births.



## NEO-NATAL MORTALITY.

During the last 24 years there has been a decline in the mortality rate amongst children under 4 weeks of age, as will be seen from the table below.

	BIRMINGHAM.		ENGLAND AND WALES.	
	Rate per 1,000 live births.	Average.	Rate per 1,000 live births.	Average.
1912	42.1	40.6	38	38
1913	41.0		39	
1914	42.3		39	
1915	37.0		38	
1916	35.8	36.3	37	37
1917	38.3		37	
1918	35.7		36	
1919	37.1		40	
1920	34.4	33.5	35	33
1921	35.0		35	
1922	34.4		34	
1923	31.1		32	
1924	34.6	31.0	33	33
1925	32.2		32	
1926	31.1		32	
1927	33.3		32	
1928	29.7	32.3	31	32
1929	32.3		33	
1930	28.7		31	
1931	32.2		32	
1932	32.7	32.3	32	32
1933	30.8		32	
1934	32.6		31	
1935	33.4		—	

## STILLBIRTHS.

The net number of stillbirths for the year was 548, equal to 33 per 1,000 of the live and stillbirths, as compared with the rate of 36 in 1934.

The following table shows the number of stillbirths over a number of years:—

	Stillbirths.	Average	Percentage of total live births.	Average.
1912	667	710	3.0	3.2
1913	679		2.9	
1914	762		3.3	
1915	732		3.5	
1916	729	711	3.5	3.5
1917	580		3.3	
1918	590		3.5	
1919	744		3.8	
1920	911	649	3.6	3.3
1921	804		3.6	
1922	660		3.3	
1923	629		3.3	
1924	544	596	3.0	3.5
1925	609		3.4	
1926	585		3.3	
1927	521		3.0	
1928	595	604	3.5	3.7
1929	590		3.5	
1930	688		4.0	
1931	697		4.1	
1932	603	604	3.6	3.7
1933	591		3.9	
1934	580		3.7	
1935	548		3.4	

## NEO-NATAL DEATHS AND STILLBIRTHS.

The loss of life from neo-natal deaths (i.e. deaths within 4 weeks from birth) and stillbirths continues unabated. A slight improvement in the number of stillbirths has been counter balanced by a slight rise in the neo-natal mortality rate.

Enquiries made in relation to all cases of still-births and to a proportion of the neo-natal deaths indicate that the place of occurrence of birth was as follows:—

Where Birth took place.	Neo-natal deaths.	Stillbirths.
City Hospitals	92	90
City Maternity Homes	27	33
Voluntary Hospitals	82	105
Private Nursing Homes	1	27
	<hr/>	<hr/>
At Home	202	255
No information	269	293
	<hr/>	<hr/>
TOTAL	493	548

The percentage in which birth occurred in institutions is high, and is suggestive of abnormalities in these particular cases. In the case of neo-natal deaths the proportion born in institutions is 41 per cent., against 33 per cent. in all births and stillbirths; and among stillbirths 46 per cent., against 33 per cent. in all births and stillbirths.

*Ante-natal Care at Child Welfare Centres.*

Information was available in 493 cases where a neo-natal death occurred as to ante-natal attendance at a child welfare centre clinic. Only 163 of the 493 mothers had visited these clinics, i.e., 33 per cent. as against the attendance of 56 per cent. for all births and stillbirths. Similarly, with stillbirths only 200 of the 548 cases had attended the ante-natal clinics, or 36 per cent. as against 56 per cent. for all births and stillbirths. These figures are encouraging since they suggest that ante-natal care plays a part in diminishing intra-natal and neo-natal mortality.

*Environment.*

	Births.	Stillbirths.	Neo-natal deaths.
Central Wards	4,085	141 (3.3% of live and stillbirths).	135 (3.3% of live births).
Middle Ring	4,190	133 (3.1% of live and stillbirths).	136 (3.2% of live births).
Outer Ring	7,339	273 (3.6% of live and stillbirths).	260 (3.5% of live births).

Proportionately, neo-natal deaths and stillbirths are unaffected by home conditions. The poorest districts show no preponderance and in fact, often show a slight advantage.

*Neo-natal Deaths.*

The following information was obtained in 525 cases:—

Causes of Death.	
Asphyxia	14
Atelectasis	24
Haemorrhage	43
Icterus Neonatorum	6
Congenital Defect	65
Prematurity	305
Other conditions	68
	<hr/>
TOTAL	525



Age at Death.										
0—1 hour										277
2 hours										42
3 "										20
4 "										14
5 "										20
6 "										14
7 "										52
1—2 weeks										51
2—3+ "										35
TOTAL										525

### Stillbirths.

An investigation of stillbirths occurring in Birmingham in 1935 shows that though 213 in 548 (39 per cent.) were premature, in all but 22 a primary cause of death was found, accounting for failure to survive birth.

The following tables indicate the results of the enquiry :—

Ante-natal causes	250
Intra-natal causes	174
Foetal abnormalities (including hydrocephaly, anencephaly, hydramnios, meningocele, spina bifida, monstrosities)	91
Prematurity (with no other apparent cause of death)	22
No information	11
	548

Further analysis of the first two groups gives the following figures :—

*Ante-natal causes* = 250.

Toxaemia and nephritis	58
Ante-partum haemorrhage (placenta praevia and accidental haemorrhage)	71
Ill-health of mother (cardiac disease, shock, accidents, etc.)	21
Various causes	5
Insufficient information (but the foetus macerated)	95
	250

*Intra-natal causes* = 174.

Difficult labour (including forceps deliveries, craniotomies and prolonged labours)	62
Breech delivery	37
Prolapsed cord	22
Various causes	25
Insufficient information (but the foetus not macerated)	28
	174

It was found that foetal abnormalities account for 91 or 17 per cent., and that ante-natal and intra-natal conditions of sufficient importance to account for the stillbirths were known to be present in 301 of the 548 cases (55 per cent.).

There can be no doubt as to the close relationship between neo-natal deaths and stillbirths. The fact that out of the 525 neo-natal deaths investigated no less than 439 were dead within seven hours (84 per cent.) makes this clear. The causes, too, are similar, prematurity being present in 58 per cent. of neo-natal deaths, and in 39 per cent. of stillbirths. Congenital defects of the infant are more frequently associated with stillbirths, but in both play a relatively small part compared with prematurity. The investigation into the causes of stillbirth shows that prematurity is associated closely with ante-natal and intra-natal abnormalities.

The inevitable conclusion must be drawn that ante-natal and obstetric factors are mainly responsible for this enormous loss of life, and in so far as it can be reduced it can only be reduced by improved midwifery and improved neo-natal care.

In the ante-natal period something much more than examinations to diagnose disproportion or imminent eclampsia, appears essential. The earlier detection and intensive care of mild toxæmia, much more prevalent than was once suspected, may do much. Toxæmia is undoubtedly an important factor in premature birth, though not the only factor. The care of the expectant mother suffering from heart disease, chronic kidney conditions, etc., is also of undoubted importance. Syphilis plays a comparatively minor part but must not be forgotten. We are still ignorant of the relation of nutritional factors; for instance, the nutritional anaemias may play an unsuspected part in all classes.

Better obstetrics must help to reduce a certain proportion of stillbirths and neo-natal deaths, while the proper instruction of midwives in modern methods of neo-natal care, resuscitation of the asphyxiated infant and the avoidance of early infection will be of great value.

It is necessary to emphasise that ordinary methods for child welfare can do little to improve the position, for the health visitor reaches the home too late to be of assistance.

While the importance of more intensive treatment of ill-health in the expectant mother has been emphasised, it must be remembered that this usually necessitates institutional treatment. The difficulty of procuring this at present is mainly due to three factors:—

- (1) The dearth of ante-natal beds for mild toxæmias.
- (2) The lack of resident nursery accommodation for the young children of multiparae. This cannot be met by the provision of home helps in many cases—even if the home help is provided free—owing to the husband working irregular hours, night shifts, etc.
- (3) Lack of realisation on the part of doctors, midwives and patients of the importance of slight symptoms and signs in these cases.

A wider recognition of the scope of the problem will lead to an improvement.

#### DEATHS OF CHILDREN BETWEEN 1 AND 5 YEARS OLD.

These are set out in the table below, distinguishing those under 2 years from those over 2.

	1 to 2 years old,				2 to 5 years old,			
	1935.	1934.	1933.	1932.	1935.	1934.	1933.	1932.
Measles .....	22	10	37	25	13	4	16	15
Whooping cough .....	14	37	13	41	24	24	6	23
Diphtheria .....	3	3	2	4	19	25	10	9
Scarlet fever .....	0	4	1	2	5	5	3	2
Influenza .....	2	2	5	5	1	3	6	4
Tuberculosis .....	8	7	11	22	16	20	24	21
Nervous diseases .....	13	14	10	8	12	12	7	10
Bronchitis and pneumonia	38	53	66	71	20	32	27	22
Diarrhoea and enteritis	8	10	12	6	5	6	6	5
Other digestive diseases	4	7	6	3	10	12	13	10
Accidental deaths .....	3	6	2	8	13	23	23	18
All other causes .....	18	18	16	28	30	18	24	23
Total .....	133	171	181	223	168	184	165	162



The following table shows the deaths and death-rates among children between one and five years compared with the figures for previous years :—

	Deaths.	1—2 years	Deaths.	2—5 years
		Average Death-rate per 1,000.		Average Death-rate per 1,000.
1912—15 .....	821	45.9	697	12.2
1916—20 .....	579	32.2	568	9.9
1921—25 .....	451	23.7	323	5.8
1926—30 .....	309	19.3	233	4.9
1931—35 .....	194	12.9	181	3.8

The figures show that a great reduction has occurred in the mortality amongst toddlers during recent years, a reduction of 72 per cent. being recorded in the death-rate from one to two years and of 69 per cent. in that for the age period two to five years.

#### MATERNAL MORTALITY IN CHILDBIRTH.

The deaths of women classed to pregnancy and child-bearing in Birmingham during 1935 numbered 56. The number of live births was 15,911, giving a maternal mortality rate per 1,000 births of 3.52.

The maternal mortality in previous years is shown in the table below :—

	Puerperal Fever.	Deaths from	Rate per 1,000 live Births (total).	
		Other Puerperal Causes.		
			Birmingham.	England and Wales.
1911	36	48	3.82	3.87
1912	27	45	3.25	3.98
1913	44	48	3.86	3.96
1914	33	41	3.19	4.17
1915	35	38	3.44	4.18
1916	31	40	3.44	4.12
1917	26	20	2.60	3.89
1918	29	22	3.03	3.79
1919	23	28	2.64	4.37
1920	51	39	3.59	4.33
1921	26	37	2.84	3.92
1922	25	35	3.02	3.81
1923	34	33	3.51	3.82
1924	37	35	3.91	3.90
1925	35	39	4.15	4.08
1926	41	33	4.13	4.12
1927	25	37	3.59	4.11
1928	32	34	3.83	4.42
1929	26	41	3.99	4.33
1930	27	32	3.39	4.40
1931	28	37	3.81	4.11
1932	28	34	3.73	4.21
1933	25	31	3.72	4.51
1934	29	31	3.83	4.60
1935	23	33	3.52	4.10

The rates calculated on live and still-births for 1935 were :—

Birmingham	...	...	...	3.40
England and Wales	...	...	...	3.93

The causes of death as given on the death certificates may be classified as follows :—

Puerperal sepsis (after confinement or abortion)	...	...	...	...	23
Puerperal haemorrhage	...	...	...	...	8
Albuminuria and convulsions	...	...	...	...	7
Accidents of pregnancy (abortion, ectopic gestation, etc.)	...	...	...	...	0
Embolism	...	...	...	...	5
Other causes	...	...	...	...	13

## COMPARATIVE MATERNAL MORTALITY IN 11 LARGEST TOWNS.

	Deaths per 1,000 live Births from :—	
	Puerperal Sepsis.	Other Puerperal Causes. Total.
London	1.17	1.43
Glasgow	3.66	3.12
Birmingham	1.45	2.07
Liverpool	1.67	1.73
Manchester	2.13	1.68
Sheffield	2.08	2.47
Leeds	1.11	2.22
Edinburgh	2.30	3.00
Bristol	0.87	1.75
Hull	1.01	1.69
Bradford	1.77	1.01

## MATERNAL MORTALITY ENQUIRY.

At the request of the Ministry of Health a medical enquiry has been made in the case of every maternal death in childbirth during each year since 1929. The information obtained during 1935 has been tabulated below :—

Total deaths of women associated with pregnancy and child birth=69.

## GROUPS.

I. Deaths from intercurrent disease	14
II. Deaths from child bearing	55
(a) Deaths from abortion	7
(b) " " sepsis	20
(c) " " toxæmia	12
(d) " " hæmorrhage	6
(e) " " other causes	10

GROUP I. Deaths from intercurrent disease=Total 14.

*Parity.* Primipara 7. Multipara 7. Illegitimate 0.

*Ages.* Under 20=nil. 20-30=6. 30-40=8. Over 40=nil.

<i>Cause of death.</i> Pneumonia	3
Intestinal obstruction	1
Cavernous sinus thrombosis	1
Phthisis	3
Heart disease	6

*Treated in hospital*=11 cases.

*Ante-natal care.* Nil=3. Some=1. Sufficient=10.

*Home conditions.* Good=4. Fair=9. Poor=1.

*Period of Pregnancy.* Full term=2. 36-40 weeks=4. 32-36 weeks=1. 28-32 weeks=2. 24-28 weeks=2. Under 24 weeks=3.

Death was apparently inevitable in 11 cases. In 3 cases life might have been saved had the patient followed medical advice given to her.



## GROUP II. Deaths from child bearing=Total 55.

(a) Deaths from abortion. Total=7.

Parity. Primipara=3. Multipara=4. Illegitimate=3.

Ages. Under 20=nil. 20-30=4. 30-40=3. Over 40=0.

Cause of death in every case=sepsis.

Interference	3
Probable interference	2
Delay in treatment	2 (In both cases due to the patient's fault).

Home conditions. Good=1. Fair=6. Poor=nil.

Period of Pregnancy. Under 12 weeks=4. 12-16 weeks=1. 16-20 weeks=1. 20-24 weeks=1.

(b), (c), (d). Deaths from Puerperal Sepsis, Toxaemia and Haemorrhage.

These are shown in a subsequent table.

(e) Deaths from other causes. Total=10 cases.

Causes of death.	Vomiting of pregnancy	1
	Embolism	3
	Rupture of uterus	2
	Post anaesthetic pneumonia	1
	Chorea of pregnancy	1
	Shock (after difficult deliveries)	2

Parity. Primipara=6. Multipara=4.

In 2 cases better ante-natal care and in 1 case better management of labour might have prevented death.

## Summary and Comparison with 1934.

	1935.		1934.	
	Primipara.	Multipara.	Primipara.	Multipara.
Abortions	3	4	3	11
Obstetric causes	30	18	20	22
Intercurrent conditions	7	7	4	14
	40	29	27	47

Thus in 1935 there were 69 maternal deaths, as compared with 74 in 1934.

Three of the 7 deaths from abortion in 1935 were certainly due, and 2 were probably due to artificially induced abortion.

In 17 of the 48 obstetric deaths better ante-natal care might have saved the patient. In 8 cases better conditions during labour and the puerperium might have prevented a fatal issue.

The 14 deaths from intercurrent disease have no real relation to child bearing, except the 6 heart cases, and 3 cases of phthisis, in which pregnancy was contra-indicated and was responsible for the patient's death.

## Relative Mortality Figures for Cases Booking with Doctor, Midwife or Hospital.

Of 48 deaths from obstetric causes (i.e., omitting deaths from abortions and intercurrent disease) the bookings were as follows:—

	Sepsis	Toxaemia	Haemorrhage	Other causes	Total
Booked with doctor	8	3	2	3	16
„ „ midwife	7	6	4	4	21
„ „ hospital	3	3	0	2	8
Not booked	2	0	0	1	3
				Total	48

## MATERNAL DEATHS.

(b) From sepsis=20. (c) From toxæmia=12. (d) From hæmorrhage=6.

	Puerperal Sepsis.	Toxaemia		Haemorrhage.	Total.
		Eclampsia with Convulsions.	No Convulsions.		
TOTAL .....	20	4	8	6	38
AGE GROUPS.					
Under 20 years .....	—	—	—	—	—
20—30 .....	7	2	4	3	16
30—40 .....	13	2	3	3	21
Over 40 .....	—	—	1	—	1
PARITY.					
Primipara .....	12	4	4	4	24
Multipara .....	8	—	4	2	14
HOME CONDITIONS.					
Good .....	10	—	—	3	13
Fair .....	5	3	6	2	16
Poor .....	4	1	2	1	8
Destitute .....	1	—	—	—	1
Illegitimate .....	1	—	—	—	1
PERIOD OF PREGNANCY.					
36—40 weeks .....	7	3	6	4	20
Less than 36 weeks .....	13	1	2	2	18
ANTE-NATAL CARE.					
By {	Doctor .....	9	2	4	16
	Midwife .....	2	—	—	4
	M. & C. W. Centre .....	5	1	2	9
	Hospital .....	4	—	—	8
	Nil .....	—	1	—	1
ATTENDANCE AT DELIVERY					
Doctor .....	8	1	—	3	12
Midwife .....	6	—	1	2	9
Doctor or Midwife and hospital .....	1	3	6	1	11
Hospital .....	3	—	1	—	4
Nil .....	2	—	—	—	2
TREATED IN HOSPITAL .....	20	3	8	2	33



## PUERPERAL SEPSIS.

There were 104 cases of puerperal fever and 172 cases of puerperal pyrexia during the year, 16 being cases of persons residing outside the City but removed for confinement to Birmingham institutions. The corresponding numbers in 1934 were: 113 cases of puerperal fever, 216 of puerperal pyrexia, and 16 out-City cases.

In 259 instances of Birmingham residents detailed information was obtained. One hundred and thirty-four cases were removed to hospital for treatment.

Women's Hospital	...	...	...	86
Dudley Road Hospital	...	...	...	37
Selly Oak Hospital	...	...	...	6
Maternity Hospital (for Caesarean Section)	...	...	...	1
Other Hospitals	...	...	...	4
				<hr/> 134

The number of cases in primiparae was 125; in multiparae 103. The parity was not known in 31 cases.

The period of pregnancy was as follows:—

Premature	...	...	...	...	23
Full term	...	...	...	...	188
Post mature	...	...	...	...	7
Abortions	...	...	...	...	40
No information	...	...	...	...	1
					<hr/> 259

Out of 259 cases of puerperal fever or pyrexia where information was obtained, 21 died, 4 following abortion.

Under the scheme arranged by the Maternity and Child Welfare Committee, a consultant was called in at home by the medical attendant in 15 cases.

The ante-natal care in 200 cases where information was obtained was as follows:—

Doctor	...	...	...	...	...	48
Doctor and midwife	...	...	...	...	...	1
Midwife	...	...	...	...	...	3
Welfare Centre and Hospital	...	...	...	...	...	3
Midwife and Welfare Centre	...	...	...	...	...	1
Doctor and Welfare Centre	...	...	...	...	...	6
Welfare Centre	...	...	...	...	...	53
Hospitals	...	...	...	...	...	56
Nursing Homes	...	...	...	...	...	20
No ante-natal Care	...	...	...	...	...	9
						<hr/> 200

63 = 31.5 per cent.

The attendance at the ante-natal clinics at Child Welfare Centres was 56 per cent. of all maternity cases.

In 259 cases in which information was obtained, the following complications of labour were present. (Frequently more than one complication per case).

Vaginal and Perineal tears	...	...	...	59
Instrumental delivery	...	...	...	45
Abortion	...	...	...	39
Post Partum haemorrhage	...	...	...	30
Manual removal of placenta	...	...	...	21
Retained products	...	...	...	18
Induction	...	...	...	15
Caesarian section	...	...	...	11
Ante-partum haemorrhage	...	...	...	7
Placenta praevia	...	...	...	6
Breech presentation	...	...	...	6

No complication of labour was noted in 76 of these 259 cases.

## OPHTHALMIA NEONATORUM.

658 cases of discharging eyes were notified to the Department during 1935. The vast majority of these were not ophthalmia neonatorum due to the gonococcus, but were reactions following the use of prophylactic treatment, or mild catarrhs. 103 cases were considered sufficiently severe to admit to the Eye Hospital Ward, while 71 others were of moderate severity. In only one case was there any corneal damage, and this was a slight scar which will not impair vision.

The Health Visitors and Midwives Inspectors paid 1,977 effective visits to notified cases.

## PEMPHIGUS NEONATORUM.

Ten cases of pemphigus neonatorum were reported during 1935. Two were removed to hospital. There was one death.

## MATERNITY AND CHILD WELFARE SERVICE.

## TRAINING COURSE FOR HEALTH VISITORS.

A course was commenced on 1st October, 1934 and was continued for six months ending March 31st, 1935. Twenty-four candidates entered for this course, nine coming from Birmingham, fifteen being independent students. Twenty-three sat for the Examination in April 1935 at Cardiff, seventeen gaining their certificates.

Another course was commenced in October, 1935, thirty students being accepted. Of these, nine came from Birmingham, two from the Sussex Queen's Nursing Association and nineteen were independent candidates from various parts of the country.

The work has been carried out on the same general lines as before. It is desirable to give students as full insight as possible into practical social work. To that end the Public Assistance Committee have kindly agreed to allow each student to be present for one morning with their Relieving Officers at interviews with applicants. The Almoner at the General Hospital also kindly takes each student for a morning's work in the Registration Department and in interviewing patients. In addition they are shown the work of the School After-Care and Juvenile Unemployment Committee.

## MATERNITY AND CHILD WELFARE STAFF.

No. of health visitors—94

85 attached to child welfare centres.

9 special visitors, mainly visiting non-notifiable infectious disease.

Superintendent of Health Visitors—1

Assistant Superintendent of Health Visitors—1

Midwives' Inspectors—2

Dental Nurse—1

Tutor for Training Course—1

Immunisation Nurse—1

Special Workers—3

Foster Mother Scheme, Unmarried Mothers, Home Helps

Remedial Gymnast—1

Medical Officers—Whole-time, 14; Part-time, 21

Dentists—Whole-time, 1; Part-time, 1

Class Mistresses—Cookery, 5; Sewing, 12

## HEALTH VISITING.

The Health Visitors undertake home visiting for children under the age of five, ante-natal home visiting, and also the visiting required for non-notifiable infectious disease, pneumonia and ophthalmia neonatorum. In order to cope with the outbreaks of infection in different localities, nine visitors are employed for specialised work in the latter connection, the general health visitors dealing with sporadic cases in their localities.

The Health Visitors carry out the Centre work in addition to home visiting.

Total visits to children under 5 years, 289,283; total visits to expectant mothers—18,276; other visits—33,111; all visits—340,670.



## CHILD WELFARE CENTRES.

- (a) Number of centres provided and maintained by the City Council—30 and 1 weighing centre (now closed).
- (b) Number of centres provided and maintained by a Voluntary Association—1 and 1 weighing centre.
- (c) Total number of attendances at ordinary consultations at all centres during the year :
  - (1) By children under 1 year of age—121,495
  - (2) By children between the ages of 1 and 5 years—74,662.
- (d) Total number of children who attended ordinary consultations at the centres for the first time during the year :
  - (1) Children under 1 year of age—11,089
  - (2) Children between the ages of 1 and 5 years—3,042.
- (e) Total number of children who were in attendance at the centres throughout the year :
  - (1) Children under 1 year of age—9,395
  - (2) Children between the age of 1 and 5 years—24,563

Percentage of live births represented by the figures in (d) (1) is 69 per cent.

Percentage of children between 1 and 5 years (total in City approximately 59,000) attending Child Welfare Centres (e) (2) 42 per cent.

Number of children attending special medical inspection clinics for children 2 to 5 years—5,410 with 17,289 attendances.

During 1935, two new centres were opened and one weighing centre was closed, while the old and unsatisfactory centre in Aston Street was replaced by the new building in Lancaster Street. The new centres were in Plowden Road, Glebe Farm, and in Walsall Road. Both are in temporary premises, the former in a municipal house, and the latter in part of a large private house. The Glebe Farm Centre was opened in February and serves a small municipal housing estate and part of Stechford. The district is growing rapidly. The Walsall Road Centre was opened in July after earnest request from local residents for the service. It is in close proximity to large new housing estates. A small weighing centre in a hut near the aerodrome at Bromford was closed in July owing to the removal of families from the hutments.

The premises at Lancaster Street were opened in July. The building includes new premises for the Venereal Disease Clinic for women and children on the first floor, and an excellent child welfare centre on the ground floor. The women attending the centre have freely expressed their appreciation of the improvement in the centre premises. The work of the health visitors and voluntary workers is less difficult and more fruitful in the new environment.

In 1935 the Carnegie Institute had the highest number of individual children registered as attending the children's consultation, viz: 2,397; followed by Sutton Street with 1,688, Acocks Green with 1,654, Monument Road Centre with 1,640, Kingstanding Centre with 1,632 and Wright Street Centre with 1,632, Bloomsbury Street Centre with 1,514 and Lancaster Street Centre with 1,504.

The voluntary workers at the child welfare centres now have an organising committee. Lectures and meetings are arranged, and efforts are made to enrol new workers as vacancies occur. There are now more than 400 workers assisting in child welfare work. Their help is most valuable and is deeply appreciated, they play a large part in ensuring the successful working of the Centres. A large number of the centres have active and efficient Mothers' Committees, and several centres have a Parents' League of Health, in which fathers and mothers combine to assist in the work for children.

The Kingstanding Child Welfare Centre gained a bronze medal in the National Mothercraft Competition, and the Hay Mills Centre gained the second prize for an essay in the National Parentcraft Competition.

The toddlers' special classes continue to be popular, and are held at 24 centres. Several centres have physical improvement classes for mothers, which have proved helpful and interesting to the women.

The remedial exercise clinics for toddlers have done excellent work and could be extended with advantage. The numbers attending have steadily increased in the last three years.

The various clinics at the child welfare centres have been well attended and the educational work has reached a high standard. A table is given showing the increase in the centre work during the last fourteen years. The increase in attendances at the clinics is remarkable, particularly in relation to the work for expectant mothers. The work for "toddlers" has been greatly extended, and is shown in the special medical inspections. The increase in the educational work is notable. The actual number of births recorded is 4,000 less than in 1921, which was a "peak" year, following the War.

#### ATTENDANCES AT CHILD WELFARE CENTRES DURING 1921 AND 1935.

	1921.	1935.	
Number of centres	21	31	
Infants and Children :—			
Births (stillbirths) reported	19,360	15,374	
Primary visits	18,718	15,400	
Re-visits (infants and children)	169,482	261,724	
Total visits and re-visits	188,200	289,283	
Mothers :—			
Primary visits	3,291	1,970	} Different method of calculation now in force.
Re-visits	6,425	16,306	
Total visits and re-visits	9,716	18,276	
Children's Consultations :—			
Number held	2,610	3,476	
Fresh children attending	14,988	14,131	
Total attendances	130,321	178,868	
Number seen by doctor	58,910	79,586	
Special Medical Inspections (1½—5 years) :—			
Number held	Nil	1,095	
Total attendances		17,289	
Mothers' Consultations :—			
Number held	824	2,157	
Fresh mothers attending	4,683	8,900	
Total attendances	10,380	32,571	
Attendance at :—			
Sewing classes	9,335	18,398	
Cookery classes	1,645	3,277	
Health talks	20,685	63,840	



## MATERNITY AND CHILD WELFARE CENTRES, 1935.

CENTRES.	Infants & Children.				Mothers. (Ante-Natal).			Children's Consultations.				Special Medical Inspections (1½-5 yrs).		Mothers' Consultations (Ante-Natal)		
	Births and Stillbirths reported.	Primary Visits.	Re-Visits	Total Visits.	Primary Visits.	Re-Visits	Total Visits.	Number held.	Fresh Children Attending.	Total Attendances.	Number seen by Doctor.	Number held	Total Attendance.	Number held	Fresh Mothers attending.	Total Attendances.
Acock's Green .....	561	607	11484	13185	106	1079	1185	146	722	9452	3764	48	903	97	395	1677
Aston Street .....	355	379	6646	7365	98	335	433	72	346	2932	1489	25	355	48	193	731
Billesley .....	380	396	7393	7954	53	345	398	96	299	4698	2002	50	784	48	162	601
Bloomsbury Street .....	740	715	12223	13401	51	553	604	148	628	8150	3473	50	827	144	581	2059
Bromford .....	326	330	6279	6844	3	291	294	98	284	5012	1939	37	748	49	224	993
Carnegie Institute .....	1020	983	10660	12422	142	695	837	244	1021	13562	5661	48	621	147	586	1937
Erdington .....	531	540	5527	6205	3	284	287	104	486	6299	2408	50	793	91	260	1373
Floodgate Street .....	404	398	7048	7817	47	464	511	98	323	4561	2300	36	324	49	251	785
Glebe Farm .....	207	246	4165	4732	63	266	329	43	231	1293	822	—	—	21	58	192
Greet .....	634	615	10703	11763	52	700	752	98	406	5358	2499	48	756	98	388	1345
Handsworth .....	443	451	5825	6616	96	232	328	98	313	4474	2024	50	789	47	158	512
Harborne .....	262	261	3720	4028	87	283	370	95	244	3849	1636	—	—	20	100	355
Hay Mills .....	519	495	8851	9820	63	547	610	98	400	5076	2318	49	711	49	218	716
Hope Street .....	800	809	14005	15501	73	802	875	97	573	5293	2160	49	701	67	421	1314
Irving Street .....	382	377	8268	9191	12	525	537	98	361	5346	2339	—	—	30	155	509
Kettlehouse .....	246	212	4530	4817	13	394	407	59	279	2576	1615	—	—	49	166	671
King's Heath .....	375	327	5053	5482	3	247	250	98	315	4879	2083	—	—	48	106	586
Kingstanding .....	541	612	11837	12926	101	995	1096	194	624	10077	4595	50	747	129	410	1820
Lancaster Street .....	227	300	6244	6861	61	408	469	66	376	3305	1512	25	397	49	209	764
Lansdowne Street .....	521	460	8638	9394	68	605	673	98	345	4857	2240	48	721	51	281	1027
Monument Road .....	920	938	14700	16338	94	817	911	193	934	10242	4219	49	752	143	635	2140
Northfield .....	382	379	7733	8367	94	410	504	86	303	3938	1929	45	680	48	185	772
Selly Oak .....	291	260	3720	4345	37	237	274	98	270	4185	2118	—	—	50	148	690
Stechford .....	391	370	5932	6572	29	476	505	98	420	5104	2234	48	843	48	220	759
Stirchley .....	463	418	6983	7596	55	417	472	98	371	4883	2316	—	—	48	158	581
Stratford Road .....	557	552	12178	13352	28	858	886	96	562	5974	2042	48	765	72	356	1292
Sutton Street .....	681	767	13773	14909	180	817	997	198	796	10539	4870	49	892	100	591	1812
Trinity Road .....	529	494	5646	6451	66	357	423	98	494	5545	2423	48	904	98	287	1260
Walsall Road .....	111	119	2462	2611	50	129	179	24	206	1052	560	—	—	24	56	199
Washwood Heath .....	396	445	6124	6852	46	160	206	98	288	4328	1877	48	794	47	262	859
Weoley Castle .....	286	290	7193	7807	45	578	623	96	241	3534	1830	48	685	50	190	671
Wright Street .....	893	855	16181	17759	51	1000	1051	145	670	8495	4289	49	797	98	490	1569
TOTALS .....	15374	15400	261724	289283	1970	16306	18276	3476	14131	178868	79586	1095	17289	2157	8900	32571

## INDIVIDUAL CHILDREN ATTENDING CENTRES IN 1935.

Acock's Green	1,654	Monument Road	1,640
Billesley	1,023	Northfield	959
Bloomsbury Street	1,514	Perry Common	1,632
Bromford	883	Plowden Road (Glebe Farm)	235
Carnegie Institute	2,397	Selly Oak	512
Erdington	1,181	Stechford	1,032
Floodgate Street	771	Stirchley	796
Greet	1,233	Stratford Road	1,253
Handsworth	812	Sutton Street	1,688
Harborne	568	Trinity Road	1,387
Hay Mills	1,141	Walsall Road	227
Hope Street	1,393	Washwood Heath	929
Irving Street	743	Weoley Castle	892
Kettlehouse	594	Wright Street	1,632
King's Heath	656		
Lancaster Street	1,504		33,958
Lansdowne Street	1,077		
Under 1 year		9,395	
Over 1 year		24,563	

## MEDICAL INSPECTION FOR PRE-SCHOOL CHILDREN ("TODDLERS").

As a continuation and extension of the work initiated in 1930, 1,095 medical inspection clinics were held in 1935, with an attendance of 17,289 children, giving an average attendance of sixteen. The number of children attending was 5,410.

Children between 2 and 5 years come by appointment and are recalled every three months.

## THE HEALTH OF CHILDREN BORN 1931-1934.

At the end of 1935, the health visitors were asked to make returns showing the health of children born in 1931, 1932, 1933 and 1934. The number of children, regarding whom complete returns were available, was 50,618, and of these, 40,669 or 80 per cent. were well and healthy during the year, while 590 died.

The tables given below show the causes of death and the causes of acute illness, as well as the more chronic ailments from which these children had suffered during 1935. The importance of infectious diseases as a cause of ill-health is well illustrated, respiratory conditions of various kinds being only second in frequency.

On the whole, the figures given show that there is a considerable percentage of chronic ill-health, as well as acute sickness, among the toddlers, and that further efforts are required to raise the general health standard among them.

Total number of children of whom complete returns are available born in—

1931.	1932.	1933.	1934.	Total.
12,648	12,813	12,110	13,047	50,618

Number well and healthy during the whole of 1935—40,669

Number died during 1935—590

Causes :—

Respiratory conditions	123
Infectious diseases	108
Prematurity	81
Disease of Alimentary tract	75
Congenital defects	39
Ear, nose and throat conditions	32
Diseases of central nervous system	26
Tubercular conditions	25
Accidents	18
Kidney conditions	10
Cardio-vascular conditions	10
Septic conditions	7
Blood diseases	4
Orthopaedic conditions	2
Other conditions	30

590



Number acutely ill—4,742

Causes :—

Infectious diseases	...	...	2,838
Respiratory conditions	...	...	998
Disease of alimentary tract	...	...	154
Ear, nose and throat conditions	...	...	161
Septic conditions	...	...	71
Accidents	...	...	51
Kidney conditions	...	...	25
Blood diseases	...	...	21
Skin conditions	...	...	21
Diseases of central nervous system	...	...	20
Tubercular condition	...	...	10
Cardio-vascular conditions	...	...	6
Orthopaedic conditions	...	...	3
Eye conditions	...	...	1
Venereal disease	...	...	1
Other conditions	...	...	361
			<hr/> 4,742 <hr/>

Number suffering from :—

Orthopaedic defects	...	...	1,289
Otorrhoea (chronic)	...	...	286
Enlarged tonsils and adenoids	...	...	969
Other ear, nose and throat conditions	...	...	229
Asthma	...	...	70
Lung conditions	...	...	342
Mental defects	...	...	156
Squint	...	...	511
Skin conditions	...	...	149
Infectious diseases	...	...	149
Respiratory conditions	...	...	113
Blood diseases	...	...	92
Eye conditions	...	...	71
Congenital defects	...	...	75
Ear, nose and throat conditions	...	...	64
Orthopaedic conditions	...	...	45
Disease of alimentary tract	...	...	44
Diseases of central nervous system	...	...	37
Septic conditions	...	...	31
Accidents	...	...	29
Tubercular conditions	...	...	21
Cardio-vascular conditions	...	...	8
Kidney conditions	...	...	4
Venereal disease	...	...	2
Other conditions	...	...	896
			<hr/> 5,682 <hr/>

## ANTE-NATAL CLINICS AT CHILD WELFARE CENTRES.

The average number of ante-natal clinics held weekly is 43 and the average attendance is 15 per clinic. 60 per cent. of the women seen by Health Visitors in 1935 attended these clinics. This is an increase of 2 per cent. on the previous year. The midwives are co-operating excellently and the great majority make every effort to secure their patients' attendance.

Year.	No. of Sessions.	No. of fresh expectant mothers attending ante-natal clinics.	Total attendances.	Births and Still-births.	Births and Still-births visited.	Percentage of mothers visited attending ante-natal clinics.
1916	No record	561	No record	21,347	8,143	7
1917	"	538	"	18,286	9,143	6
1918	"	1,603	3,275	17,430	12,044	13
1919	"	2,940	6,250	20,079	15,154	19
1920	857	3,939	8,812	25,980	21,006	19
1921	824	4,683	10,380	22,938	18,718	25
1922	800	4,095	8,450	20,510	16,254	25
1923	890	4,386	9,391	19,698	16,193	27
1924	981	4,043	10,395	18,934	15,969	25
1925	1,034	4,346	11,135	18,445	15,647	28
1926	1,117	4,630	12,043	18,517	15,626	30
1927	1,188	4,615	12,252	17,773	16,217	28
1928	1,304	6,098	15,803	17,817	16,186	38
1929	1,522	7,308	19,751	17,393	16,522	44
1930	2,071	9,466	28,323	18,105	17,828	53
1931	2,090	8,616	27,608	17,740	16,937	51
1932	1,892	8,174	25,983	17,219	16,190	50
1933	1,905	8,290	26,538	15,645	14,975	55
1934	1,953	8,867	28,719	16,261	15,161	58
1935	2,203	9,200	32,871	16,459	15,400	60

Ante-natal Clinics are also held at Dudley Road and Selly Oak Hospitals, at the Maternity Hospital and at the City Maternity Homes at Heathfield Road, and Wake Green Road. In 1935 the number of mothers attending numbered 5,186—probably a large number of these attended child welfare centres also.

## ULTRA VIOLET LIGHT CLINICS AT CHILD WELFARE CENTRES.

Condition.	Total No of Cases.	No. of New Cases.	No. of Attendances.
1. Rickets, prophylactic rickets and delayed dentition	2,272	833	11,405
2. Catarrhal	422	161	2,080
3. General debility	1,045	394	5,111
4. Nervous irritability	92	34	437
5. Chronic chest conditions and bronchitis	541	198	2,674
6. Asthma	49	12	263
7. Muscular weakness	266	90	1,400
8. Malnutrition	247	88	1,122
9. Skin conditions	14	6	83
10. Anorexia	94	35	378
11. Enlarged glands	19	11	94
12. Other conditions	453	176	2,619
	5,514	2,038	27,666

The clinics are situated at the following Centres:—

Bloomsbury Street, Carnegie Institute, Floodgate Street, Greet, Harborne, Hope Street, King-standing, Lancaster Street, Monument Road, Sutton Street, Selly Oak, Stirchley, Stratford Road, Wright Street.



Type of Deformity.	No. of cases of defect.	Percentage of Total cases of defect.
Knock knees	520	27.0%
Postural defects	452	23.5%
Flat feet	368	19.1%
Chest deformities	342	17.7%
Hypotonicity	153	7.9%
Constipation	25	1.3%
Postural defects	61	3.2%
Hemiplegia	2	.1%
Torticollis	2	.1%
Infantile paralysis	2	.1%
Spastic diplegia	1	.05%
Spastic paraplegia	1	.05%
	No. attending.	No. of attendances.
1933	564	4,997
1934	417	5,857
1935	637	6,136

	Stratford Road.	Carnegie Institute.	Lancaster St. Opened Sept. 9th, 1935.	Selly Oak Opened Sept. 2nd, 1935.	Total.
Number of clinics held .....	236	296	48	11	591
Mothers attending .....	3,086	4,082	471	100	7,739
Children attending .....	1,537	2,064	485	139	4,225
Average attendance (Mothers) .....	13	14	10	9	—
" " (Children) .....	7	7	10	12	—
Local anaesthetics .....	62	101	17	2	182
Gas .....	2,399	3,108	617	222	6,346
Dentures supplied .....	306	424	46	—	776

In addition, 4 inspection clinics were held at the child welfare centres, when the dentist examined 227 expectant or nursing mothers and children, and gave on each occasion a lecture on dental hygiene.

## TREATMENT OF EAR, NOSE, THROAT AND EYE CONDITIONS.

Cases referred from Child Welfare Centres and examined during 1935 at the Children's Hospital for the treatment of the above conditions were as follows:—

Eyes, ear and throat cases	...	...	...	...	...	...	378
Tonsils and adenoids (operation required)	...	...	...	...	...	...	511
Tonsils and adenoids (examination only)	...	...	...	...	...	...	348

THE PROVISION OF FOOD FOR NECESSITOUS MOTHERS AND CHILDREN.  
MUNICIPAL KITCHEN AND FEEDING CENTRES.

During 1935 the number of dinner centres increased from seven to thirteen and the attendances at all the centres were satisfactory and steady throughout the year.

The six new dinner centres were commenced in November and prior to this the necessary additional equipment had been installed at the central kitchen in Bacchus Road whence the cooked meals are transported daily to the welfare centres.

The re-planning of the kitchen has simplified the work for the staff and the provision of a refrigerator has been very helpful.

It has been found possible to arrange for the transport of extra dinners by employing daily two motor vans instead of one and the service has been found reliable.

One extra kitchen assistant was appointed in September and the staff of three (the cook and her two assistants) have proved capable of carrying out the work efficiently.

The meals provided are uniformly appreciated. The usual two course meal, consisting of meat two vegetables and pudding, is served for both mothers and toddlers and the latter are given a glass of milk and some fruit in addition.

*Attendances.*

						1935.	
Commenced 16/11/35 (6 weeks).	{	Newtown Row	.....	.....	.....	11,191	} 69,194
		Hope Street	.....	.....	.....	8,262	
		River Street	.....	.....	.....	8,516	
		Bloomsbury Street	.....	.....	.....	8,748	
		Carnegie Institute	.....	.....	.....	7,384	
		Sutton Street	.....	.....	.....	8,367	
		Monument Road	.....	.....	.....	11,949	
		Lancaster Street	.....	.....	.....	899	
		Handsworth	.....	.....	.....	509	
		Irving Street	.....	.....	.....	1,085	
		Kingstanding	.....	.....	.....	845	
		Lansdowne Street	.....	.....	.....	646	
		Wright Street	.....	.....	.....	793	
Total Attendances :— Mothers		.....	.....	.....	22,795	} 69,194	
Toddlers		.....	.....	.....	46,399		

Numbers of individual mothers and children who received dinners at some period during 1935.

	Mothers.					Toddlers.
Newtown Row	.....	.....	.....	.....	93	197
Hope Street	.....	.....	.....	.....	95	123
River Street	.....	.....	.....	.....	74	130
Bloomsbury Street	.....	.....	.....	.....	68	92
Carnegie Institute	.....	.....	.....	.....	68	107
Sutton Street	.....	.....	.....	.....	60	96
Monument Road	.....	.....	.....	.....	115	140
Lancaster Street	.....	.....	.....	.....	25	73
Handsworth	.....	.....	.....	.....	6	24
Irving Street	.....	.....	.....	.....	22	60
Kingstanding	.....	.....	.....	.....	9	35
Lansdowne Street	.....	.....	.....	.....	9	26
Wright Street	.....	.....	.....	.....	9	27
					653	1,130



*Cost.*

	£	s.	d.
Cost of food .....	989	5	10
Cost of transport .....	131	16	6
	<hr/>		
Receipts from Centres .....	1,121	2	4
	230	9	6
	<hr/>		
	£890	12	10

Net cost per meal, excluding wages and overhead charges=3.09d.

Approximate total cost per meal, including wages and overhead charges=6.05d.

## TODDLERS' "BREAKFAST" MEALS.

At 17 Centres, half a pint of milk and bread and butter were served to toddlers at 9 a.m. on five days during the week, and half a pint of milk was taken home to be given to the children later in the day. At 4 Centres, these meals were continued throughout the summer.

No. of individual children attending	...	...	...	...	...	...	...	1,013
Total attendances made	...	...	...	...	...	...	...	64,281

## CARNEGIE INFANT WELFARE INSTITUTE.

The attendance at the various clinics and consultations has been satisfactory.

The toddlers' class, held on four afternoons a week, is very much enjoyed by the children and appreciated by their parents.

The Parents' League of Health, which now has 112 members, has had a good year, with an average attendance of about 70 at the monthly evening meetings. The members of the affiliated branch of the League at Monument Road Centre attend the meetings at the Carnegie Institute.

The class, held once a week, of Restorative Exercises for women, particularly in the post-natal period, has been much enjoyed by its members, who derive great benefit from it.

During the week before the Christmas recess, an evening's entertainment was given by the Carnegie Dramatic Society, which produced three plays before a large and enthusiastic audience.

During the year, a special effort has been made to encourage breast-feeding in view of the too high proportion of bottle-fed babies in the City. Special propaganda is done at the ante-natal clinics, and at the weekly test-feeding clinic, as well as at the ordinary infant consultations.

The Parents' Guidance Clinic, started in 1934, has continued during 1935 to render encouragement and assistance to mothers troubled by behaviour problems on the part of pre-school children.

The attendances at the Carnegie Institute were as follows:—

	No. held.	Total attendances.
General infant consultations	244	13,562
Medical inspections (18 months to 5 years)	48	621
Ante-natal clinics	147	1,937
X-ray clinics	47	531
Dental clinics (treatment)	296	4,082 mothers
		2,064 children
Light clinics (treatment)	98	3,325
Remedial exercises (prescribing)	6	51
Sewing classes	45	573
Cookery classes	40	359
Mothercraft classes	23	251
Health talks	238	4,249
Parents' Guidance clinics	47	313

## THE OBSERVATION WARD CARNEGIE INSTITUTE.

During the year 1935, 144 children were admitted to the ward and the average length of stay was  $21\frac{1}{2}$  days.

Five mothers were also admitted because they were breast feeding ill children.

There was 1 case of re-admission and 4 deaths. Excluding 5 healthy children admitted for investigation prior to adoption, there were 139 ailing children. Of these:—

38 were discharged as cured.  
89 were discharged as improved.  
12 were discharged as in status quo.

During the year 21 children were transferred to Canwell Hall for further treatment—the majority of these being chronic chest cases. Three were transferred to the Children's Hospital for operation. Six children were sent to Little Bromwich Hospital—3 with whooping-cough, one with measles and 2 with dysentery.

Three cases were transferred to Yardley Green Road Sanatorium. The 4 deaths were due to:—

1. Congenital heart disease—Broncho pneumonia.
2. Congenital heart disease—Gastro-enteritis.
3. Broncho-pneumonia.
4. Acute otitis media—Broncho-pneumonia.

As in previous years, the reason for admission to the ward was chiefly for the investigation of children in a debilitated condition, or of those failing to make normal progress—mentally or physically.

Amongst the toddlers, chest conditions again headed the list and nutritional anaemia came second, whilst among the babies feeding difficulties and gastro-intestinal symptoms were the chief factors.

## THE PARENTS' GUIDANCE CLINIC.

The Parents' Guidance Clinic, opened in January, 1934 at the Carnegie Institute to assist parents in the management of difficult children, with Dr. J. Hammond, of Wolverhampton, as the medical psychologist, and Dr. Ursula Cox as his assistant, has proved a very helpful feature of the Child Welfare Scheme.

Altogether 116 children have attended with a total of 313 attendances.

The Medical Officers at the Child Welfare Centres recommend the mothers to attend and fill in an appropriate report form, which is supplemented by a report from the Superintendent of the Centre. The Clinic is held weekly. The reports from medical officers and health visitors show good results in a large proportion of cases.

The chief difficulties for which the mothers seek advice are fears of various kinds, e.g., night terrors, etc., unruly and aggressive behaviour, jealousy, enuresis, anorexia, and so forth.

Many mothers have expressed their appreciation of the help which they have received at this clinic.



## HOME HELPS.

Fifty Home Helps were employed during 1935. Owing to the high standard required it is difficult to increase the number, though more are needed.

The Home Helps attended 908 cases in 1935—i.e., 180 more than in the preceding year. Eighty-five were cases of non-infectious illness of mothers whose families included children under five years of age, and the remainder were maternity cases or illnesses directly attributable to a recent or an approaching confinement.

Their work has been carefully supervised, and they appear to have given great satisfaction. Numerous letters of thanks have been received from the women helped.

The Home Helps adapted themselves very well to each of the cases to which they were sent. The households attended have been very varied in type and have included:—

- (1) Modern houses with up-to-date apparatus, and old houses with communal wash-house and steep stairs, up and down which the Home Help was expected to carry trays of food, coal, and the ex-baby.
- (2) Small families where the house was well kept and much polishing expected, and large families where the Home Help's time was taken up with piles of washing, preparation of meals and washing up of crockery, as well as the care of toddlers.
- (3) Relatively well-to-do households where carefully cooked meals were expected, and poor families where the Home Help's ingenuity had to be exercised in making nourishing dishes at the least possible expense, and where washing and cleaning utensils were very limited or had to be borrowed.

However different in circumstances they might be, the families appeared to have one point in common: an unwillingness to part with the Home Helps at the end of their period of service.

In some cases of illness, this period was very protracted, being sometimes as long as three or four months, but the usual time for a normal confinement has been from two to three weeks.

## CITY BABIES' HOSPITAL.

## CANWELL HALL (84 beds).

A full statement of the work of the hospital was given in the 1933 report. There has been no material alteration in its scope and character. The demand for beds has been as great as ever, and the children on the whole have benefited markedly from their stay. The long period of treatment available for non-pulmonary lung infection has proved of great value.

Rickets continues to diminish. There were 13 cases in 1935 as against 22 cases in 1934, and 47 in 1933, 91 in 1932, and 71 in 1931. At the same time, a very high proportion of the children show evidence of malnutrition (see table). It would appear that the centres are dealing satisfactorily with the prevention of severe rickets through the sale of cod-liver oil and the ultra-violet light clips, but that malnutrition remains a major problem. Forty-three children admitted were found to be suffering from chronic pulmonary infections. There were 70 cases of well marked nutritional anaemia.

Infectious disease has been a source of anxiety during the year, and further steps have been taken to safeguard the children and nurses.

A hut has been placed near the laundry for sorting soiled linen, and no sluicing is now done in the house. It is hoped that diarrhoeal infections will be more easily controlled in these circumstances. The nurses are required to wear masks on duty during the winter and spring months to diminish the spread of respiratory infections.

Of the 481 children admitted during 1935, only 24 (5 per cent.) gave a positive Mantoux reaction, showing previous infection with tuberculosis. Of these, five were considered to require sanatorium treatment. In ten cases, there was a family history of tuberculosis and definite contact with infective cases.



The chief outbreaks of infection were as follows:—

#### *Measles.*

During the summer of this year, there were 34 cases of measles in the Hospital, concurrently with an exceptionally severe epidemic in the City.

The earliest cases were in the babies' ward, starting on April 4th. Eight infants were affected, and also one nurse—on April 22nd. There were no cases in this ward after the end of May.

Among the older children the epidemic started early in June, arising almost simultaneously among children recently admitted and children who had been in the hospital for several weeks, the latter presumably contracting the infection from visitors. Thereafter, there were 25 cases in the toddlers' and admission wards, the last case occurring on July 29th.

The majority of the cases were transferred to the City Fever Hospital, but owing to the pressure on the accommodation there, some cases had to be nursed for the whole or part of the illness at the Babies' Hospital. There were two deaths due to measles in the Hospital, and many of the cases were seriously ill. Immunising serum was used when possible. The Hospital was closed to further admissions and visiting days were suspended for several weeks. In the latter half of July, cases were accepted for admission if known to have had measles already.

#### (2) *Rubella (German Measles).*

Thirty-nine cases of rubella occurred at the same time as the cases of measles. Ten children were transferred to Little Bromwich Fever Hospital; the remainder were nursed in the Babies' Hospital. Nine nurses and one ward maid also contracted rubella and were nursed in Little Bromwich Fever Hospital.

#### (3) *Dysentery.*

The incidence of infection was high in autumn and early winter. The first cases occurred in an admission ward on September 16th and September 29th. Both these children were admitted incubating the disease. Within the next fortnight thirteen children had clinical symptoms of dysentery, but only two of the children yielded positive cultures of bacilli dysenteriae. The nurses attending these children were swabbed and one nurse gave a positive culture.

At the same time there were seven cases of severe enteritis in the Baby Ward. Three babies died. The infection appeared to be due to *Bacillus Morgani* No. 1.

At the end of October, another outbreak occurred in the Toddlers' Wards. Nine children had clinical symptoms, apparently due to *B. dysenteriae* Sonne. The nurses were again swabbed. One nurse gave a positive growth but had no clinical symptoms.

In December, a third outbreak occurred. Four children were admitted and on examination gave positive growths of bacilli dysenteriae Sonne, but had no clinical symptoms. Seven children developed clinical symptoms; three gave positive growths, on examination, of *B. dysenteriae* Sonne, and four were negative. Since December, the infection has given no further trouble.

In order to limit spread of infection in the admission wards, a faecal swab is taken from every child on admission and bed isolation is strictly maintained till reports are received.

#### *Staff.*

The amount of illness among the staff was not above the average. There were three cases of catarrhal jaundice, an infectious condition not infrequently occurring among the staffs of children's hospitals. Precautions are taken to obviate spread. One case of diphtheria occurred among the nursing staff in a nurse who had not been immunised.

#### *Admissions and Discharges.*

<i>Number of Admissions.</i>		<i>Number of Discharges.</i>	
0—1 years	127	Well.....	132
1—2 years	165	Improved .....	212
2—5 years	189	In status quo .....	8
	<hr/> 481		<hr/> 352
Number of children taken home by parents against advice	...	...	25
Number of children transferred to other hospitals and homes	...	...	92
Number of deaths	...	...	22
Number in hospital at end of year	...	...	72
Average length of stay	...	...	51 days



The diagnosed cases discharged home were classified as follows :—

	0—1 yrs	1—2 yrs.	2—6 yrs.	Total.
Anaemia	11	35	24	70
Acute chest conditions	8	6	9	23
Chronic chest conditions	4	15	24	43
Congenital heart disease	1	2	2	5
Ear conditions (acute)	3	3	4	10
Enteritis	—	4	3	7
Gastro-enteritis	12	2	1	15
General debility and malnutrition	7	24	39	70
Hostel babies	4	1	—	5
Hypertrophied and septic tonsils	—	5	3	8
Mismanaged	2	3	5	10
Mentally deficient	1	1	—	2
Nervous debility	—	—	6	6
Pink's disease	4	3	—	7
Rickets	1	8	4	13
Urinary diseases	4	1	7	12
Other conditions	6	2	13	21
	68	115	144	327

Cases transferred to Little Bromwich Fever Hospital :—

Chickenpox	...	...	...	2
Diphtheria	...	...	...	1
Nasal diphtheria	...	...	...	5
Dysentery	...	...	...	10
Measles	...	...	...	24
Rubella	...	...	...	10
Mumps	...	...	...	2
Enteritis	...	...	...	5
Whooping cough	...	...	...	4
Scarlet fever	...	...	...	4
				67

Cases transferred to other hospitals :—

*To the Children's Hospital.*

Congenital heart disease and jaundice	...	...	1	(for blood transfusion).
Empyema and otitis media	...	...	1	(for operation).
Acute gastro-enteritis	...	...	3	(for blood transfusion).
Mastoiditis	...	...	2	} (for operation)
Acute otitis media	...	...	5	

*To Yardley Road Sanatorium.*

Pulmonary tuberculosis	...	...	...	1
------------------------	-----	-----	-----	---

*To Selly Oak Hospital.*

Otorrhoea and septic cervical adenitis	...	...	1	} (for operation)
Mastoiditis	...	...	1	

*To Dudley Road Hospital.*

Empyema	...	...	...	1	(for operation).
---------	-----	-----	-----	---	------------------

*Causes of death.*

Broncho-pneumonia	...	...	...	...	10
Congenital heart disease	...	...	...	...	2
Dysentery	...	...	...	...	1
Gastro-enteritis	...	...	...	...	5
Measles and broncho-pneumonia	...	...	...	...	1
Measles and otitis media	...	...	...	...	1
Severe anaemia and pyelitis	...	...	...	...	1
Congenital malformation of kidneys and pyelitis	...	...	...	...	1
					22

*Classification of ages at death.*

0—2 months.	2—6 months.	6—12 months.	1—5 years.
2	8	8	4

### THE CONVALESCENT HOME FOR MOTHERS.

PYPE HAYES HALL, CHESTER ROAD, ERDINGTON.

(Beds—Mothers 22; Babies—20).

Total number of mothers admitted	... 394
Of these 32 were ante-natal cases	
Total number of babies admitted	... 375

The Home admits expectant mothers and mothers with babies under six months who require rest and care. During 1935 Pye Hayes Hall was in full and regular use, to the great satisfaction of the mothers, several of whom returned for a second visit.

There were no cases of diarrhoea and vomiting among the infants during the summer months. In October, one baby was sent home with whooping cough, and also nine mothers and their babies who were contacts. However, all of these returned to finish their stay after the lapse of the incubation period. There were no further cases of infection.

Breast feeding cases showed a steady increase of breast milk, and breast feeding was re-established in many cases of babies who had been bottle-fed for some weeks.

The mothers were definitely refreshed mentally and physically by their stay, and their knowledge of mothercraft was extended in accordance with the needs of the individual mother.

Admissions.				
Mothers	...	...	...	394
Babies	...	...	...	375
Expectant mothers	...	...	...	32
Babies without mothers	...	...	...	15
Total				816

### LORDSWOOD RESIDENT NURSERY.

(35 beds).

There were 123 admissions in 1935.

There were three outbreaks of infection during the year—whooping cough affecting nine children, scarlet fever affecting four children, and german measles affecting nine children. These infections again emphasised the need for isolation facilities. There was also a mild outbreak of enteritis in which 23 older children were affected. This was considered to be associated with a particular meal of fish, but unfortunately none of the fish remained for investigation.

On the whole, the children have done very well considering the type of child admitted.

One child died suddenly in the Home from congenital heart disease, and 25 were transferred to hospitals, other than Little Bromwich Hospital, suffering from conditions including pneumonia, middle ear disease, tuberculosis and osteomyelitis. Eight of these children died in hospital.

The children are frequently in a poor state of health when first admitted. Thus, 16 of the 25 cases sent to hospital required to be sent within four weeks of admission to Lordswood Nursery; and six of those who died were in this group.

### THE CITY MATERNITY HOMES.

THE WAKE GREEN ROAD MATERNITY HOME (SORRENTO).

There has been an increased demand for beds during 1935 and the number of patients admitted has been greater than in any previous year. This has been possible in the maternity wards because the length of stay has been reduced to 10 days from a fortnight. The change was considered desirable in the interest of the patients, with whom it has proved popular.

There was no case of puerperal septicaemia; two cases of mild sapraemia were notified, as well as four cases of mastitis, and one of tuberculosis. This gives seven cases of illness in 659 maternity cases. One maternal death occurred from intestinal obstruction from a Meckel's diverticulum (a congenital abnormality). The patient was operated on in the General Hospital, but did not survive.

One of the features to be noted is the low forceps rate, viz., 4.2 per cent. The number of complicated labours, in spite of intensive ante-natal care, is of considerable interest.



Patients are admitted to the Home on social rather than medical grounds, except when they have been admitted to the ante-natal ward for treatment. Only 20 of the total deliveries (unbooked cases) belonged to the latter group, 639 were booked cases, and of these, 342 were primiparae. This high proportion is accounted for by the number of young married persons living in lodgings.

Of the 639 booked cases, no less than 279 or 44 per cent. required admission to the ante-natal ward, in every case for a medical reason. The importance of a sufficiency of ante-natal beds in a maternity institution is again emphasised.

Of the 665 babies born, 2.25 per cent. (15) were stillborn, and 2.1 per cent. (14) died during the first two weeks of life.

The premature Baby Ward has been well used. One hundred and ninety-nine babies were admitted. Investigations have been made into various conditions affecting the premature infant.

The figures for the year's work are given below :—

*Maternity Wards.* (21 beds).

No. of cases admitted—primiparae	342	(52%)
multiparae	317	(48%)
Total	659	

Booked cases—639

Unbooked cases admitted from ante-natal ward—20

No. of babies born—665 (including three sets of twins).

#### I. *Complications of Pregnancy.*

See report of ante-natal ward.

#### II. *Complications of Labour.*

- (1) *Twins.* 3 cases.
- (2) *Breech presentations.* 17 cases.
- (3) *Transverse presentations.* 2 cases.
- (4) *Placenta praevia.* 1 case.
- (5) *Accidental haemorrhage.* 1 case.
- (6) *Retained placenta.* 2 cases.
- (7) *Post-partum haemorrhage.* 13 cases.
- (8) *Perineal lacerations.* 187=28.5% of cases.
- (9) *Prolapse of cord.* 1 case.

#### *Obstetric operations performed*

- (1) *External version at 36 weeks under anaesthetic.* 3 cases.
- (2) *Operative induction of labour.* 29 cases.
- (3) *Podalic version.* 1 case.
- (4) *Forceps applied in 28 cases*=4.25% of cases.

#### III. *Complications of the Puerperium.*

- (1) *Maternal Mortality.* 1 case.  
Case of intestinal obstruction by Meckel's diverticulum during labour. Transferred to General Hospital and laparotomy performed, but died shortly after operation.
- (2) *Maternal Morbidity.*  
Cases of pyrexia notified 7.  
Cases of puerperal sepsis Nil.

##### *Cases of Pyrexia :—*

Mastitis	...	...	...	...	4
Mild sapraemia	...	...	...	...	2
Tuberculosis	...	...	...	...	1
					7

#### *Babies.*

Number born—665

Number stillborn—15 or 2.25 per cent.

Died in first 2 weeks—14 or 2.1 per cent.

No. born before 36 weeks—24 or 3.6 per cent.

*Causes of Stillbirths.*

Cord round neck	...	...	...	3 cases
Accidental ante-partum haemorrhage	...	...	...	1 case
Placenta praevia	...	...	...	1 "
Transverse presentation	...	...	...	1 "
Toxaemia	...	...	...	2 "
Foetal abnormality	...	...	...	2 "
Long labour	...	...	...	2 "
Cause unknown	...	...	...	3 "
				—
				15
				—

*Causes of deaths in the first two weeks.*

Haemorrhagic disease	...	...	...	2 cases
Intra-cranial injury	...	...	...	2 "
Toxaemia	...	...	...	4 "
Atelectasis	...	...	...	1 "
Prematurity	...	...	...	5 "
				—
				14
				—

*Other abnormalities in babies, included—*

Ophthalmia neonatorum—2 cases notified  
 Congenital heart disease  
 Cleft palate  
 Congenital obliteration of bile ducts  
 Grave familial jaundice  
 Oedema of newborn  
 Depressed fracture of skull (operation successful)  
 Pyloric stenosis, etc..

*Investigation of methods of feeding of child at two months.*(1) *Of those sent out fully breast-feeding at 10 days—*

at two months—	{ still fully breast feeding in	...	...	67 per cent.
	{ Breast and bottle in	...	...	11 per cent.
	{ Bottle in	...	...	22 per cent.

(2) *Of those sent out breast and bottle at 10 days—*

at two months—	{ Fully breast in	...	...	12 per cent.
	{ Breast and bottle in	...	...	28 per cent.
	{ Bottle	...	...	60 per cent.

*At discharge (10 days).*

Breast-fed	...	...	...	80 per cent.
Breast and bottle	...	...	...	8 per cent.
Bottle	...	...	...	12 per cent.

Thus the percentage of figures for the total number of babies is as follows:—

	10 days.	2 months.
Breast fed	80%	55%
Breast and bottle	8%	11%
Bottle	12%	44%



*Ante-natal Ward.*

No. of cases admitted—booked...	279
No. of cases admitted—unbooked	59
	<hr/> 338 <hr/>

*Complications in booked cases.*

No. of cases—279 or 42.5 per cent. of cases.

*Reason for Admission.*

Toxaemia	...	...	...	...	74
Pyelitis	...	...	...	...	20
Tuberculosis	...	...	...	...	1
To prevent premature labour	...	...	...	...	8
Anaemia	...	...	...	...	2
For induction of labour	...	...	...	...	55
Ante-partum haemorrhage (all varieties)	...	...	...	...	28
To prevent abortion	...	...	...	...	3
Varicose veins	...	...	...	...	3
Chest conditions	...	...	...	...	2
Kidney case	...	...	...	...	1
Haematemesis	...	...	...	...	1
Vaginal discharge	...	...	...	...	6
Vomiting of pregnancy	...	...	...	...	3
Heart cases	...	...	...	...	9
Goitre	...	...	...	...	1
For external version	...	...	...	...	2
Shingles	...	...	...	...	1
In early labour	...	...	...	...	30
For observation	...	...	...	...	29
					<hr/> Total 279 <hr/>

*Unbooked Cases.* Total=59 cases.

Analysis of cause for admission and result :—

Cause for admission.	No. of Cases.	Results.	
		1 retained for delivery.	6 sent home.
Heart	7		
Toxaemia	16	12	4
Kidney disease	2	1	1
Pyelitis	8	3	5
To prevent prematurity	3	1	2
Chest	1	—	1
Anaemia	2	—	2
Vomiting	3	—	3
Ante-partum haemorrhage	4	—	4
Glycosuria	2	—	2
Chorea	1	1	—
Varicose veins	2	—	2
Observation	8	—	8
	<hr/> 59 <hr/>	<hr/> 19 <hr/>	<hr/> 40 <hr/>

*Ante-natal Clinics.*

	No held.	New Patients.	Total attendances.
<i>Doctors' Clinics</i>	157	729	3,241
<i>Midwives' Clinics</i>	51	—	765
	<hr/> 208 <hr/>	<hr/> 729 <hr/>	<hr/> 4,006 <hr/>

*Post-natal Clinics.*

No. of patients attending=452. (60%).

In 452 cases :

Everything normal in 434 cases.

Abnormality in 18 cases or 4% of cases examined.

*Analysis of abnormalities.*

- |   |   |                              |
|---|---|------------------------------|
| (a) Mastitis (Total 6 cases)  | { | 1—which subsided             |
|   |   | 3—2-3 weeks after discharge. |
|   |   | 1—5 weeks after discharge    |
|   |   | 1—6 weeks after discharge..  |
| (b) Pyelitis. 1 case.   |   |                              |
| (c) Albumin in urine (2 cases of toxæmia). 2 cases.                   |   |                              |
| (d) Retroversion of uterus. 5 cases.                                  |   |                              |
| (e) Anal fissure. 3 cases.  |   |                              |
| (f) Deficient perineum (sent to hospital for perineorrhaphy). 1 case. |   |                              |
| Total=18 cases.   |   |                              |

*Premature Baby Ward.*

No. of premature babies admitted=199.

No. of weakly babies admitted=30.

No. of mothers admitted with babies=86.

*Weakly Infants. Total 30 cases.*

Discharged well. 18 cases.

Died. 12 cases.

Causes of death were :—

Pneumonia .....	3
Intra-cranial injury .....	3
Marasmus .....	1
Congenital heart .....	1
Diarrhoea and vomiting .....	1
Mongolism .....	1
Spina bifida .....	1
Toxaemia .....	1
	<hr/> 12

*Premature Babies.*

Weight.	No.	Died.	Moribund on admission.	Death Rate.	Net death rate (i.e., omitting moribund).
0—2 lbs. ....	9	9	9	100%	—
2—3 lbs. ....	28	21	15	75%	46%
3—4 lbs. ....	74	53	24	71%	58%
4—5 lbs. ....	58	27	11	47%	34%
Over 5 lbs. ....	30	2	2	6%	Nil
Totals .....	<hr/> 199	<hr/> 112	<hr/> 61	<hr/> 56%	<hr/> 37%

*Causes of Death.*

Chest conditions ...	5
Diarrhoea and vomiting ...	3
Congenital heart ...	1
Intracranial injury ...	4
Parotitis ...	1
Haemorrhagic disease ...	13
Oedema of newborn ...	15
Jaundice ...	2
Prematurity only ...	68
	<hr/> 112



CITY MATERNITY HOME,  
HEATHFIELD ROAD, HANDSWORTH.

The Home has been fully booked up throughout the year. The work has reached a high standard, and the results have been uniformly good, except in relation to mastitis. The number of cases occurring in the Home was 19 in 488 deliveries.

The continuance of this unfortunate complication of the puerperium has caused the staff considerable anxiety. It has been found impossible, so far, to trace its source. Every precaution has been taken and full investigations carried out. Additional cases have been reported after the patients returned to their homes, as is frequently the case with this condition. Mastitis is a fairly common event in the puerperium; it is seldom fatal, and fortunately none of these cases have had such a termination. The condition is fairly prevalent at present in the larger cities and a considerable number of maternity hospitals and homes have been faced with the same difficulties.

*Maternity Wards.* (17 beds).

Number of mothers delivered—488

Primiparae—288=59 per cent.

Multiparae—200=41 per cent.

Booked cases—476

Unbooked cases admitted from ante-natal ward—12.

*Complications of Labour.*

Operative inductions	...	...	...	32 cases
Placenta praevia	...	...	...	5 "
Accidental haemorrhage	...	...	...	2 "
Prolapsed cord	...	...	...	2 "
Breech presentations	...	...	...	12 "
Twins	...	...	...	6 "
Instrumental deliveries	...	...	...	26 "
Episiotomy, followed by normal labour	...	...	...	11 "
Perineal lacerations	...	...	...	66 "
Post-partum haemorrhage (loss exceeded 20 ozs.)	...	...	...	16 "
Manual removal of placenta	...	...	...	1 "
Obstetric shock	...	...	...	1 "

*Complications of Puerperium.*

Notifiable pyrexia	...	...	...	4 "
Mastitis	...	...	...	19 "

*Infants.*

Number of infants born	...	...	...	494
Number of premature births	...	...	...	14
Number of stillbirths	...	...	...	19

*Causes of stillbirths.*

Inadequate placenta and infarcts	...	...	...	4 cases
Central placenta praevia	...	...	...	1 "
Toxaemia	...	...	...	2 "
Cord round neck	...	...	...	2 "
True knot in cord	...	...	...	1 "
Forceps delivery	...	...	...	1 "
Hydrocephalus, spina bifida	...	...	...	1 "
Anencephalus	...	...	...	1 "

Number of infants dying in first two weeks—11

*Causes.*

Prematurity	...	...	...	5
Congenital abnormalities	...	...	...	1
Cranial injury	...	...	...	1
Haemorrhagic disease	...	...	...	2
Tetany	...	...	...	1
Septicaemia	...	...	...	1

Number of cases of notified ophthalmia—2

*Ante-natal Ward.*

Number of individual cases admitted	... 227
Total admissions	... 260
Number of unbooked cases	... 74

*Reason for admission.*

	Booked.	Unbooked.
Toxaemia	42	25
Pyelitis	16	10
Cervicitis	14	12
Placenta praevia	6	—
Accidental haemorrhage	2	—
Hyperemesis	4	3
Anaemia	2	—
Epilepsy	2	—
Cardiac disease	—	3
Phlebitis and varicose veins	6	4
Investigation of glycosuria	3	2
" " albuminuria	4	2
" " abdominal pain	5	3
Versions	5	3
Inductions	14	—
Prevention premature labour	5	—
Rest	14	7
Observation	9	—
	<hr/> 153	<hr/> 74

31.4 per cent. of booked cases admitted to ante-natal ward.

One death from cerebral haemorrhage occurred in ante-natal ward.

*Ante-natal Clinics.*

	No. held.	New patients.	Total attendances.
Doctors' Clinics	126	577	2,400
Midwives' Clinics	51	—	312
Total	<hr/> 177	<hr/> 577	<hr/> 2,712

*Post-natal Clinics.*

Number held.	Total attendances.
50	253

52 per cent. of patients attended for post-natal examination.

**CARE OF THE UNMARRIED MOTHER.**

The method of dealing with the unmarried mother, and with married women and widows with illegitimate children, has been detailed in previous annual reports. The same procedure has been followed throughout 1935. A total of 377 unmarried mothers and 41 married women with illegitimate children were dealt with in 1935.

Of the total cases, 308 were first cases of illegitimacy.

The cases were dealt with as follows—

Dealt with at	First cases.	Un-married Mothers. Multiple cases.	Married Women
Hope Lodge	50	—	—
The Hawthorns (Salvation Army)	19	9	2
Woodville (Catholic)	15	—	—
Cleveland House (Venereal Disease cases)	9	—	—
The Hostel (Post-natal only)	12	1	—
Birmingham Infirmary	4	18	4
Greenhill Hostel	3	—	—
Own home, except for confinement	129	31	24
Own home entirely	67	10	11
	<hr/> 308	<hr/> 69	<hr/> 41



The number of cases with venereal disease was 27. All but two received systematic treatment.

The number of mentally defective women was 9 (first cases, 6; multiple cases, 3).

Of these, four have been certified and are in institutions. Three have been examined and are in an institution although not yet certified. The remainder have been reported to the appropriate department and remain under supervision at home.

The subsequent history of cases dealt with in previous years is given below :—

Cases dealt with,	Further pregnancies in 1935.			
	2nd,	3rd,	4th and 5th.	
1934 = 418	5	2	1	—
1933 = 451	14	5	—	—
1932 = 318	13	4	1	2
1931 = 239	4	2	—	—
1930 = 222	5	—	—	—

#### INFANT LIFE PROTECTION.

The supervision of foster mothers and children, extended under the Children and Young Persons' Act, 1932, applies to children up to the age of nine, and includes all children received for reward or promise of reward apart from their parents, even for limited periods.

The department receives many applications for recommendations of foster mothers as well as applications for foster children, but the former being much more numerous, advertisements for suitable foster mothers have proved necessary.

The department frequently assists suitable persons wishing to adopt children.

The foster mothers on the whole co-operate in the most friendly way with the health department and when difficulties arise they frequently call on the staff to assist in their settlement. Care is taken to maintain the mother's relationship with, and responsibility for, her child placed with a foster mother.

At the end of 1935, 320 foster mothers were on the register and 337 foster children under supervision.

During the year :—

244 homes were registered

236 applications were received for foster mothers

165 applications were received for foster children

318 visits were paid to ascertain the suitability of homes offered

373 foster mothers were interviewed at the Council House for advice and instruction

#### THE FOSTER MOTHER SERVICE.

The foster mother service which came into effect early in 1935, has proved to be of great benefit, especially to unmarried mothers who for economic reasons would be unable to choose for their children a home of reasonably good standing. Full details of the scheme were given in the report for 1934.

The following figures relate to the period since the inception of the scheme:—

During the period February 28th—December 31st—98 children have been placed with foster mothers registered under the scheme. Of these—

11 went back to parents  
 3 awaiting adoption  
 1 care of Dr. Barnardo's Homes  
 1 returned to Hawthorns  
 1 returned to Lordswood Nursery  
 1 transferred to Erdington  
 1 transferred to Summer Hill Homes  
 2 transferred to the Carnegie Observation Ward  
 2 died  
 8 removed to another foster mother

The remaining 67 have stayed with the foster mothers with whom they were originally placed.

The aim has been to select foster parents who are lovers of children, and are not taking them for monetary gain alone. Care has been taken to find homes where the income is of a reasonable standard, and where it is felt they would get good character training.

The majority of these special foster homes are in the suburbs where the children can benefit by better housing conditions and fresh air.

#### FOSTER MOTHERS ON REGISTER.

	All Foster Mothers.	Foster Mother's Service.	All Foster Children.	Foster Mother's Service.
December, 1935	320	79	337	82

#### SUPERVISION OF MIDWIVES.

During the year 1935, 215 midwives notified their intention to practise in the City. Of these 23 resided outside the City, and therefore do not come under routine inspections. Of the remainder, 7 were temporarily employed and 21 were attached to various institutions.

It is interesting to note that no less than 83 of the midwives have received recognised general training, in addition to their midwifery certificate, and that only 5 of the so-called bonafide midwives remain on the Roll, the rest having obtained their Central Midwives' Board Certificate.

During the year, 13 midwives gave up work owing to various reasons, such as old age, ill-health, or from having taken up work elsewhere.

There were 179 residing in the City and having private practices at the end of 1934 and 161 at the end of 1935.

The midwives sent for medical help in 2,607 cases, for the mother in 1,889 instances and for the child in 718.

Reasons for sending for medical help:—

For Mother—1,889.				For Child—718.			
Delayed labour	...	...	413	Ophthalmia	...	...	440
Laceration of perineum	...	...	580	Prematurity	...	...	78
Haemorrhage	...	...	179	Convulsions	...	...	5
Adherent placenta	...	...	55	Jaundice	...	...	12
Abnormal presentation	...	...	100	Deformity	...	...	41
Abortion or miscarriage	...	...	52	Skin eruptions	...	...	7
Rise of temperature	...	...	107	Other causes	...	...	135
Other causes	...	...	403				



Six midwives were suspended during the year; four with an infected throat, and two as scarlet fever contacts. There is a steady improvement in the work of practising midwives, and in only one instance was it found necessary to report a midwife to the Central Midwives' Board.

The following table shows the number of cases taken by individual midwives:

Midwives taking under	50 cases per annum	107
" " 50-100	" " "	46
" " 100-150	" " "	16
" " 150-200	" " "	9
" " over 200	" " "	6

The midwives attended 7,496 cases (46 per cent of the births and stillbirths), and in 2,513 cases they acted as maternity nurses (15 per cent. of the notified births); total, 61 per cent.

The following table is of interest:—

#### MIDWIVES' CASES—MEDICAL HELP CALLS.

	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.
Total cases attended	12,534	10,921	10,655	10,934	9,398	9,894	9,205	7,933	7,555	7,496
Total medical help calls	2,305	2,518	3,236	3,026	3,360	3,065	2,706	2,256	2,479	2,607
Percentage of calls	18	23	30	28	36	31	29	28	33	35
Reasons:—										
Delayed labour	575	628	902	806	913	758	592	432	500	413
Lacerated perineum	462	494	641	674	775	708	620	539	550	580
Haemorrhage	111	133	210	190	213	220	186	158	165	179
Adherent placenta	65	94	104	85	79	61	71	56	75	55
Abnormal presentation	103	83	91	102	131	114	106	141	93	100
Discharging eyes	287	313	374	380	461	427	379	318	354	440
Other causes	702	773	914	789	788	777	752	612	742	840

The following visits were paid during the year by the Midwives' Inspectors:—

Routine visits to midwives	...	...	...	...	...	...	...	...	357
Special visits to midwives	...	...	...	...	...	...	...	...	116
Visits to stillbirths	...	...	...	...	...	...	...	...	431
Visits to ophthalmia neonatorum cases	...	...	...	...	...	...	...	...	809
Visits to puerperal sepsis cases	...	...	...	...	...	...	...	...	189
Visits to nursing homes	...	...	...	...	...	...	...	...	94
Visits to handywomen	...	...	...	...	...	...	...	...	49
Other visits	...	...	...	...	...	...	...	...	202
Unsuccessful visits	...	...	...	...	...	...	...	...	425
The number of midwives interviewed was	...	...	...	...	...	...	...	...	396

#### ATTENDANCE AT CHILDBIRTH.

The births occurring in the City during the year were as follows:

Births notified	...	...	...	16,170
Stillbirths notified	...	...	...	622
Failed to notify	...	...	...	298
				<hr/>
				17,090*

\*This figure does not include Birmingham confinements occurring outside the City, but includes the confinements of a number of persons whose residence was outside the area.

Medical practitioners attended 22 per cent. in the patients' homes, medical students 1 per cent., and midwives 44 per cent., while 33 per cent. of births occurred in institutions. This is set out in detail as follows:—

*Cases at home attended by midwives:*

(a) As midwives.....	*7,496—44%	} 10,009—59%
(b) As nurses .....	2,513—15%	

\* This figure includes 1,896 cases attended by Maternity Hospital

Midwives, and also 662 cases where a Doctor was called in by a midwife.

*Cases at home by Queen's Hospital Students* ..... 222—1%

*Cases attended at home by doctors\* assisted by nurses, other than midwives, by relatives or handywomen* ..... 1,176—7%

\*As shown above doctors attended also 15% with midwives as nurses.

*Cases in Hospitals, Homes and Institutions:*

At Dudley Road Hospital .....	1,085	} 5,683—33%
At Selly Oak Hospital .....	671	
At Wake Green Road Home .....	660	
At Heathfield Road Home .....	488	
At Maternity Hospital .....	1,320	
At Queen's Hospital .....	213	
At St. Chad's Hospital .....	210	
At Women's Hospital .....	35	
At General Hospital .....	34	
At Hope Lodge .....	26	
At other institutions .....	5	
At private nursing homes .....	936	} 17,090
TOTAL .....	17,090	

*District Midwifery.*

Apart from admission to institutions, 11,407 women were delivered in private houses. The number of independent practising midwives is 174 and they attended 5,600 as midwives and 2,513 as nurses. There are also 10 midwives employed in 8 districts (2 acting as assistants and relief midwives) for the training of midwife pupils from the Maternity Hospital. These women attended 1,896 cases, out of which 310 were also attended by medical students. Under a special arrangement made by the Queen's Hospital medical students attended 222 cases at their homes. The balance of district midwifery (1,176 cases or 7 per cent.) was attended by doctors assisted by qualified monthly nurses, relatives or handywomen. In all private medical practitioners attended 4,351 confinements or 25 per cent. of the total.

The Public Health Committee pay the midwife's fee in certain cases of unemployment where the maternity benefit has lapsed, provided the home conditions are suitable for the confinement. The fee was paid in 62 cases during 1935.

**NURSING HOMES.**

There are now 44 nursing homes in Birmingham. One new home has been opened—a small maternity home. Three other homes have been given up; these were also small maternity homes, run by midwives in association with a district practice. Applications for registration of two further nursing homes are under consideration.

In the great majority of the Homes the standard of equipment and nursing is satisfactory.

Total number of Nursing Homes at the end of the year 1935—44.

Total number of beds in these homes .....	414
Number of Homes which are equipped for surgical work .....	15
Number of Homes which take chronic or senile cases only .....	10
Number of beds in these ten Homes .....	110
Number of Homes which take maternity cases only .....	12
Number of beds in these twelve Homes .....	35
Number of Homes which keep some beds for maternity cases .....	22
Approximate number of beds available for maternity cases in these 22 Homes .....	70
Approximate total maternity beds .....	105
Number of Homes run by a midwife in conjunction with a district practice .....	3



## BIRTH CONTROL CLINICS.

Birth Control Clinics were opened at Dudley Road Hospital in July and at Selly Oak Hospital in September, 1935, in accordance with the instructions of the City Council. The data up to the end of the year are necessarily of little value. The following figures, presented to the Public Health Committee in March, 1936, indicate the number of cases dealt with from the opening of these clinics up to March 2nd, 1936:—

	Dudley Road Hospital.	Selly Oak Hospital.
1. Number of women seeking advice :		
(a) Married women suffering from gynaecological conditions, making pregnancy detrimental to health .....	5	7
(b) Married women suffering from other forms of sickness detrimental to them as mothers, in that child-bearing is likely seriously to endanger life .....	38	21
(c) Other cases not coming within the categories authorized by the Ministry of Health .....	10	3
2. Number of women advised in Birth Control Methods .....	43	28
3. Number in which birth control advice was given, but pregnancy resulted .....	2 (Advice not followed).	1 (Uncertain whether pregnant before advice).



TABLE I. VITAL STATISTICS DURING 1935 AND PREVIOUS YEARS.

Year		Population Estimated to middle of each year.	Birth-rate	Death-rate	Infant Mortality Rate per 1,000 Births	DEATH-RATES PER 1,000 OF POPULATION FROM:—															DEATH-RATES PER 1,000 BIRTHS.					
						Enteric Fever	Smallpox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Tuberculosis		Cancer	Diseases of Nervous System	Diseases of Circulatory System	Diseases of Respiratory System	Diseases of Digestive System.	Diseases of Genito-Urinary System	Suicides	Other Violence	Congenital Debility, Premature Birth, Malformations, etc. (under 1)	Diarrhoea and Enteritis (under 2)	Puerperal Fever	Other Accidents of Child Birth.
1901		760,989	31.4	17.5	176	.18	—	.49	.23	.39	.16	.16	1.47	.52	.73	?	?	3.50	?	?	.11	.42	?	?	1.47	2.52
1902		768,757	31.2	16.3	144	.17	.01	.31	.43	.47	.24	.12	1.38	.37	.68	?	?	3.24	?	?	.08	.43	?	?	1.24	2.19
1903		776,604	30.9	15.8	147	.10	.02	.32	.25	.16	.23	.10	1.28	.48	.76	?	?	2.93	?	?	.11	.45	?	?	1.17	2.63
1904		784,532	31.0	17.7	179	.08	—	.31	.11	.75	.21	.13	1.30	.45	.74	?	?	3.36	?	?	.09	.49	?	?	1.40	1.98
1905		792,540	29.0	15.1	141	.06	.00	.38	.08	.26	.17	.14	1.26	.41	.81	?	?	2.92	?	?	.10	.44	?	?	1.31	2.22
Average		800,631	30.7	16.5	157	.12	.01	.36	.22	.41	.20	.13	1.34	.45	.74	?	?	3.19	?	?	.10	.45	?	?	1.32	2.31
1906		808,803	28.8	15.3	133	.09	—	.51	.15	.30	.20	.16	1.11	.43	.80	?	?	2.80	?	?	.10	.44	?	?	1.11	2.98
1907		808,803	29.1	15.3	130	.07	—	.08	.15	.49	.20	.31	1.24	.35	.85	?	?	2.82	?	?	.10	.44	?	?	1.51	1.85
1908		817,060	27.4	15.1	121	.04	—	.82	.18	.23	.20	.18	1.22	.30	.82	?	?	2.95	?	?	.10	.41	?	?	1.02	1.55
1909		825,400	26.8	13.2	115	.04	—	.05	.14	.34	.13	.11	1.08	.32	.89	?	?	2.48	?	?	.11	.45	?	?	1.48	2.11
1910		833,826	28.3	15.0	131	.06	—	.36	.14	.36	.18	.18	1.16	.35	.84	?	?	2.82	?	?	.10	.44	?	?	1.12	2.16
Average		842,337	26.1	15.0	150	.04	.00	.47	.10	.17	.13	.09	1.14	.32	.89	?	?	2.51	?	?	.12	.41	?	?	1.64	2.18
1911		850,947	26.1	14.1	111	.04	—	.67	.18	.39	.12	.12	1.28	.24	.93	1.36	1.33	2.68	.95	.50	.07	.45	48.4	10.8	1.22	2.03
1912		859,644	27.3	14.9	129	.02	—	.46	.20	.19	.19	.13	1.19	.34	1.02	1.37	1.53	2.48	1.68	.56	.11	.45	48.2	35.5	1.85	2.01
1913		882,534	26.4	14.8	122	.02	—	.35	.17	.35	.30	.16	1.20	.27	.88	1.35	1.74	2.69	1.49	.51	.09	.43	47.2	27.6	1.42	1.77
1914		891,234	23.8	14.4	118	.01	—	.47	.07	.14	.15	.16	1.28	.27	1.00	1.36	1.82	2.82	1.31	.48	.05	.45	42.8	27.3	1.65	1.79
1915		Average	25.9	14.6	126	.03	.00	.48	.14	.25	.18	.13	1.22	.29	.94	1.36	1.60	2.64	1.36	.51	.09	.44	46.6	25.3	1.56	1.96
1916		895,678	23.1	13.5	104	.01	—	.11	.03	.42	.13	.16	1.24	.24	1.00	1.29	1.88	2.60	1.07	.45	.05	.40	39.5	18.4	1.50	1.94
1917		900,000	19.7	12.6	101	.01	—	.37	.01	.14	.13	.11	1.30	.26	1.02	1.23	1.87	2.10	.88	.44	.06	.38	43.8	15.0	1.47	1.13
1918		870,000	19.4	15.2	99	.01	—	.08	.01	.32	.18	2.50	1.35	.25	1.02	1.18	1.76	2.85	.96	.40	.07	.35	38.7	18.5	1.72	1.31
1919		910,000	20.9	13.0	84	.01	—	.20	.05	.06	.14	1.15	1.10	.18	1.01	1.07	1.73	2.67	.66	.35	.11	.34	40.0	9.9	1.19	1.45
1920		910,000	27.6	12.6	83	—	—	.16	.12	.20	.22	.46	.93	.17	1.12	1.06	1.72	2.46	.82	.32	.11	.34	35.2	9.5	2.03	1.56
Average		919,683	22.1	13.4	94	.01	—	.18	.04	.23	.16	.88	1.18	.22	1.03	1.17	1.79	2.54	.88	.39	.08	.36	30.4	14.3	1.58	1.48
1921		919,683	24.1	11.3	83	.01	—	.17	.04	.10	.13	.15	.97	.16	1.12	0.98	1.64	2.02	.93	.38	.10	.26	36.6	16.6	1.17	1.67
1922		927,844	21.5	12.1	86	.00	—	.09	.04	.38	.10	.48	.97	.16	1.18	1.04	1.85	2.38	.66	.37	.12	.26	37.4	8.5	1.26	1.76
1923		936,079	20.4	11.0	72	.00	—	.20	.04	.05	.15	.28	.92	.16	1.17	1.00	1.71	1.98	.70	.39	.14	.35	31.3	10.9	1.78	1.73
1924		944,386	19.2	11.6	83	.01	—	.08	.02	.19	.10	.39	.97	.13	1.30	1.00	1.91	2.15	.70	.37	.10	.31	37.2	9.2	2.01	1.90
1925		952,766	18.8	11.7	78	.00	—	.11	.02	.23	.10	.39	.98	.16	1.27	0.98	2.12	1.97	.73	.37	.11	.33	34.0	11.3	1.96	2.19
Average		961,222	20.8	11.5	80	.00	—	.13	.03	.19	.12	.34	.96	.15	1.21	1.00	1.85	2.10	.74	.38	.11	.30	35.3	11.3	1.64	1.85
1926		961,222	18.7	11.3	73	.00	—	.08	.01	.13	.12	.27	.94	.12	1.26	1.07	2.12	1.88	.73	.40	.12	.32	32.2	11.2	2.29	1.84
1927		969,752	17.8	11.6	75	.00	—	.13	.01	.07	.06	.41	.89	.17	1.36	0.95	2.28	1.89	.70	.41	.15	.36	35.1	11.5	1.45	2.14
1928		976,500	17.6	10.9	65	.00	.00	.04	.01	.17	.07	.13	.86	.13	1.35	0.94	2.41	1.56	.67	.48	.16	.40	31.6	9.3	1.86	1.97
1929		981,000	17.1	13.5	79	.00	—	.20	.01	.13	.09	1.09	.94	.15	1.34	0.98	2.76	2.26	.76	.53	.16	.42	35.4	13.9	1.55	2.44
1930		982,000	17.7	10.8	60	.01	—	.06	.02	.11	.09	.13	.90	.13	1.43	0.88	2.57	1.32	.60	.44	.15	.40	30.6	7.6	1.55	1.84
Average		1,011,300	17.8	11.6	70	.00	.00	.10	.01	.12	.09	.41	.91	.13	1.35	0.96	2.43	1.78	.69	.45	.15	.38	33.0	10.7	1.74	2.05
1931		1,011,300	16.9	11.7	71	.00	—	.18	.01	.09	.06	.27	.92	.14	1.46	0.77*	2.90	1.61	.62	.45	.15	.38	34.6	8.7	1.64	2.17
1932		1,017,500	16.3	11.3	67	.00	—	.05	.01	.13	.03	.36	.83	.10	1.45	0.87*	2.73	1.47	.59	.45	.19	.35	33.6	7.7	1.68	2.05
1933		1,023,500	14.7	11.0	66	.00	—	.08	.02	.03	.03	.44	.85	.11	1.43	0.70*	2.94	1.32	.61	.40	.17	.39	33.7	7.8	1.66	2.06
1934		1,028,000	15.3	11.0	68	.01	—	.02	.01	.11	.08	.18	.71	.08	1.43	0.76*	3.04	1.26	.67	.44	.16	.38	35.0	8.7	1.85	1.98
1935		1,033,000	15.4	10.9	64	.00	—	.05	.01	.06	.08	.15	.71	.08	1.52	0.72*	3.14	1.09	.62	.46	.13	.40	36.3	7.7	1.45	2.07
Average		1,033,000	15.7	11.2	67	.00	—	.08	.01	.08	.06	.28	.80	.10	1.46	0.76	2.95	1.35	.62	.44	.16	.38	34.6	8.1	1.66	2.07

\* Exclusive of General Paralysis.



TABLE II.  
CAUSES OF DEATH AT DIFFERENT AGE PERIODS IN 1935.

No	Causes of Death.	Sex	AGES AT DEATH.									All Ages.
			0-	1-	2-	5-	15-	25-	45-	65-	75-	
1.	Typhoid and Paratyphoid Fevers ...	M.	—	—	—	—	1	—	—	—	—	1
		F.	—	—	—	—	1	—	—	—	—	1
1a.	Small Pox ...	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	—	—	—	—	—	—	—
2.	Measles ...	M.	7	14	5	3	—	—	—	—	—	29
		F.	4	8	8	3	—	—	—	—	—	23
3.	Scarlet Fever ...	M.	—	—	2	2	1	—	—	—	—	5
		F.	1	—	3	1	1	1	—	—	—	7
4.	Whooping Cough ...	M.	13	7	12	2	—	—	—	—	—	34
		F.	13	7	12	—	—	—	—	—	—	32
5.	Diphtheria ...	M.	3	1	7	27	2	—	—	—	—	40
		F.	1	2	12	27	2	—	—	—	—	44
6.	Influenza ...	M.	1	2	—	3	3	9	41	14	10	83
		F.	4	—	1	2	1	8	25	13	19	73
6a.	Poliomyelitis ...	M.	—	—	—	—	—	1	—	—	—	1
		F.	—	—	—	—	—	—	—	—	—	—
6b.	Polioencephalitis ...	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	—	1	—	—	—	—	—	—	1
7.	Encephalitis Lethargica	M.	—	—	—	—	—	5	5	4	—	14
		F.	—	—	—	—	—	5	6	—	—	11
8.	Cerebro-Spinal Fever	M.	5	2	1	—	1	—	—	—	—	9
		F.	1	2	3	1	—	—	1	—	—	8
9.	Tuberculosis of Respir. System ...	M.	1	3	1	6	65	172	161	30	2	441
		F.	3	—	—	8	83	125	60	9	3	291
10a.	Tubercular Meningitis	M.	2	—	8	3	1	1	1	—	—	16
		F.	1	3	3	12	1	—	—	—	—	20
10b.	Tuberculosis of the Abdomen ...	M.	—	—	—	—	—	1	1	—	—	2
		F.	—	—	2	—	—	3	1	—	—	6
10c.	Tuberculosis of Spinal Column ...	M.	—	—	—	1	—	—	1	—	—	2
		F.	—	—	—	—	—	1	—	1	—	2
10d.	Tuberculosis of Joints	M.	—	—	—	—	—	1	—	—	—	1
		F.	—	—	—	—	1	—	1	—	—	2
10e.	Disseminated Tuberculosis ...	M.	2	1	2	5	1	2	1	—	—	14
		F.	2	1	—	3	—	1	2	1	—	10
10f.	Tuberculosis of Glands and other parts ...	M.	1	—	—	1	—	1	2	—	1	6
		F.	—	—	—	—	—	2	2	—	—	4
11.	Syphilis ...	M.	1	1	—	—	1	10	34	8	3	58
		F.	2	—	—	1	1	4	14	2	—	24
12.	Gen. Paralysis of Insane	M.	—	—	—	—	—	4	12	3	1	20
	Tabes Dorsalis ...	F.	—	—	—	—	1	3	2	1	—	7
13a.	Cancer of Buccal Cavity and Pharynx ...	M.	—	—	—	—	—	1	39	22	14	76
		F.	—	—	—	—	—	2	2	2	3	9
13b.	Esop., Stomach, Liver, Pancreas	M.	1	—	—	—	1	18	121	80	28	249
		F.	—	—	—	—	1	10	62	71	45	189
13c.	Peritoneum and Intestines ...	M.	—	—	—	—	1	18	82	74	25	200
		F.	—	—	—	—	2	14	57	53	40	166
13d.	Female Organs ...	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	1	—	33	75	28	11	148
13e.	Breast ...	M.	—	—	—	—	—	—	—	1	1	2
		F.	—	—	—	—	—	25	106	37	29	197
13f.	Skin ...	M.	—	—	—	—	1	1	3	2	3	10
		F.	—	—	—	—	—	—	—	1	3	4
13g.	Other Organs ...	M.	—	—	1	—	2	18	122	74	32	249
		F.	—	—	1	1	—	12	32	15	11	72
14	Diabetes ...	M.	—	—	—	1	—	1	16	27	10	55
		F.	—	—	—	—	1	1	31	38	16	87

TABLE II.—*continued.*  
CAUSES OF DEATH AT DIFFERENT AGE PERIODS IN 1935.

No.	Causes of Death.	Sex.	AGES AT DEATH.									All Ages
			0-	1-	2-	5-	15-	25-	45-	65-	75-	
14a.	Rheumatic Fever ...	M.	—	—	1	10	13	13	3	2	—	42
		F.	—	—	1	11	12	13	6	2	—	45
14b.	Chronic Rheumatism Osteo-Arthritis ...	M.	—	—	—	—	1	2	14	8	10	35
		F.	—	—	—	—	—	3	18	18	16	55
15.	Cerebral Haemorrhage, etc. ...	M.	1	1	—	—	1	6	50	95	56	210
		F.	—	1	1	1	1	3	49	88	111	255
15a.	Other Nervous Diseases and Sense Organs ...	M.	26	6	6	11	12	21	34	23	14	153
		F.	17	5	5	13	5	22	22	23	17	129
16.	Heart Disease ...	M.	5	—	2	1	11	46	386	428	384	1263
		F.	4	1	1	1	11	56	312	427	557	1370
17.	Aneurysm ...	M.	—	—	—	—	—	3	15	7	4	29
		F.	—	—	—	1	1	4	10	—	—	16
18.	Arterio-Sclerosis and other Circ. Diseases	M.	—	—	—	—	—	6	74	92	95	267
		F.	—	—	—	—	1	4	68	105	119	297
19.	Bronchitis ...	M.	5	1	1	—	1	6	35	37	55	141
		F.	4	1	—	—	—	3	17	27	76	128
20.	Pneumonia (all forms)	M.	92	20	9	7	14	74	167	61	32	476
		F.	44	16	10	6	6	28	57	59	37	263
21.	Other Respir. Diseases	M.	2	1	—	1	1	12	29	17	6	69
		F.	1	1	2	1	2	3	15	14	9	48
22.	Peptic Ulcer ...	M.	—	—	—	—	2	18	50	8	4	82
		F.	1	—	—	—	2	4	12	13	4	36
23.	Diarrhoea and Enteritis	M.	68	4	2	—	—	7	5	2	—	88
		F.	47	4	3	—	1	13	11	1	3	83
24.	Appendicitis ...	M.	—	—	5	6	4	8	12	7	1	43
		F.	—	—	4	5	4	5	10	6	3	37
25.	Cirrhosis of Liver ...	M.	—	—	—	—	—	1	13	8	1	23
		F.	—	—	—	—	—	—	7	4	—	11
26.	Other Dis. of Liver, etc.	M.	—	—	—	1	—	4	7	5	2	19
		F.	—	—	—	—	1	5	18	12	11	47
27.	Other Digestive Diseases	M.	12	2	1	2	2	9	29	12	10	79
		F.	3	2	—	7	2	11	21	29	19	94
28.	Acute and Chronic Nephritis ...	M.	—	2	2	2	5	21	60	38	32	162
		F.	1	—	—	1	4	21	44	46	31	148
28a.	Other Genito-Urinary Diseases ...	M.	4	—	—	1	2	8	19	36	47	117
		F.	7	2	—	—	3	14	11	8	3	48
29.	Puerperal Sepsis ...	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	—	4	19	—	—	—	23
30.	Other Puerperal Causes	M.	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	—	5	28	—	—	—	33
31.	Congenital Debility, Premature Birth, Malformations, etc.	M.	297	2	2	1	—	3	—	—	—	305
		F.	280	—	2	—	—	—	—	—	—	282
32.	Senility ...	M.	—	—	—	—	—	—	1	6	50	57
		F.	—	—	—	—	—	—	—	21	113	134
33.	Suicide ...	M.	—	—	—	—	6	21	47	14	2	90
		F.	—	—	—	—	2	16	23	6	2	49
34.	Other Violence ...	M.	5	2	7	25	24	53	67	38	38	259
		F.	5	1	6	13	12	9	32	27	52	157
35.	Other Causes ...	M.	17	1	6	16	15	31	72	23	8	189
		F.	7	3	4	10	8	43	66	33	18	192
	All Causes ...	M.	571	73	83	138	195	637	1831	1306	981	5815
		F.	453	60	85	130	183	577	1308	1241	1381	5418











TABLE III. Continued.

CAUSES OF DEATH.	Sex.	Accot's Green.	All Saints'	Aston.	Beakall Heath.	Bromford.	Duddeston and Nechells.	Edgbaston.	Erdington.	Gravelly Hill.	Hall Green.	Handsworth.	Harborne.	King's Norton.	Ladywood.	Lozells.	Market Hall.	Moseley and King's Heath.	Northfield.	Perry Barr.	Rotton Park.	St. Bartholomew's.	St. Martin's and Deritend.	St. Mary's.	St. Paul's.	Salley.	Sandwell.	Selly Oak.	Small Heath.	Soho.	Sparkbrook.	Sparkhill.	Stechford.	Washwood Heath.	Yardley.	Not Located.	Total for City.	
Peptic Ulcer ...	M.	1	1	5	6	2	5	1	2	1	1	1	—	—	4	5	5	2	1	1	—	2	4	3	3	2	1	1	6	1	3	1	4	2	1	2	—	82
Diarrhoea and Enteritis ...	F.	2	—	2	1	—	—	2	1	1	3	1	3	—	—	1	—	1	2	2	2	1	1	3	9	8	1	—	—	2	3	4	5	—	1	2	—	36
Appendicitis ...	M.	—	1	2	6	2	7	2	1	1	2	—	2	2	4	3	4	1	2	3	5	1	6	7	3	1	—	—	—	5	2	3	3	3	1	—	83	
Cirrhosis of Liver ...	F.	2	1	2	1	1	1	1	1	3	1	1	1	—	1	—	4	2	3	1	—	3	4	—	1	1	—	—	2	2	3	2	2	2	1	1	43	
Other Dis. of Liver, etc. ...	M.	1	—	—	1	—	—	2	—	1	—	—	—	—	1	3	1	1	1	1	—	2	1	1	1	—	—	—	1	1	—	—	—	1	—	—	23	
Other Dis. of Liver, etc. ...	F.	2	—	—	3	1	1	1	1	—	1	6	1	—	1	2	2	4	1	—	—	3	2	1	—	—	2	—	2	2	—	—	—	1	1	—	11	
Other Digestive Diseases ...	M.	1	2	4	3	2	1	5	1	5	4	1	2	3	2	2	4	3	1	2	3	1	3	3	1	—	1	—	2	2	6	5	—	2	1	—	19	
Other Digestive Diseases ...	F.	3	2	2	3	1	5	4	3	2	4	3	2	2	3	—	3	7	4	3	3	2	2	3	3	3	2	2	5	2	1	3	4	1	3	1	79	
Acute and Chron. Nephritis ...	M.	4	9	2	8	1	3	8	3	2	4	7	1	4	3	8	1	6	6	3	8	2	6	7	3	3	4	4	2	4	8	10	4	4	4	1	162	
Other Genito-Urinary Dis. ...	F.	5	12	9	7	2	2	5	1	2	6	8	2	5	6	3	4	5	3	—	4	3	7	5	8	4	5	3	1	3	3	3	3	4	5	—	148	
Other Genito-Urinary Dis. ...	M.	2	2	1	5	4	4	5	1	2	3	6	4	4	2	4	6	7	3	1	3	4	4	1	1	1	3	7	2	3	7	5	2	3	3	1	117	
Puerperal Sepsis ...	F.	3	3	3	—	1	2	—	—	3	2	1	1	3	1	3	—	—	1	1	1	2	2	3	1	1	—	2	1	1	—	—	—	2	1	—	48	
Puerperal Sepsis ...	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23	
Other Puerperal Causes ...	F.	2	1	1	1	1	—	—	—	—	2	—	1	—	1	1	1	1	1	—	—	—	1	2	—	—	1	—	1	1	1	1	1	2	—	—	—	33
Other Puerperal Causes ...	F.	1	—	—	2	—	—	—	—	3	1	—	—	—	1	—	1	2	1	—	—	2	—	—	2	—	—	—	2	—	—	1	—	1	1	—	—	—
Con. Debility, Prem. Birth, Malformations, etc.	M.	16	13	11	6	9	9	2	5	6	5	11	10	8	6	13	8	8	14	17	8	8	24	7	14	1	4	5	12	5	5	4	10	9	11	1	305	
Senility ...	F.	13	8	7	5	3	13	4	5	8	10	2	4	7	13	11	6	12	11	13	9	9	12	13	13	7	3	3	4	5	11	9	9	11	4	7	1	282
Senility ...	M.	1	1	—	2	1	2	—	1	1	—	1	2	3	4	1	3	3	3	—	1	3	1	1	2	1	1	5	5	2	2	2	2	1	—	2	1	57
Suicide ...	F.	5	3	1	4	2	9	4	4	—	2	4	2	2	8	3	—	6	5	3	6	5	1	3	5	4	2	2	2	2	7	5	9	1	4	3	8	134
Suicide ...	M.	3	2	3	6	3	2	4	3	—	3	4	2	1	3	3	1	2	3	2	3	2	4	1	1	5	4	2	2	4	4	3	3	2	2	3	1	90
Suicide ...	F.	3	3	1	4	2	—	2	3	1	1	2	1	3	1	6	—	3	3	2	1	—	3	2	2	5	2	—	—	—	—	—	—	—	—	—	—	49
Other Violence ...	M.	9	6	5	8	6	7	8	8	3	8	8	7	5	12	9	4	15	4	8	4	13	15	8	9	5	—	6	6	5	11	6	3	6	7	2	259	
Other Violence ...	F.	4	4	4	5	3	7	4	2	5	5	7	3	6	7	5	3	6	3	3	3	9	5	7	5	1	4	3	1	2	3	7	4	8	5	1	157	
Other Causes ...	M.	5	5	3	5	5	5	3	5	2	8	3	5	5	11	4	—	8	7	3	9	9	6	6	10	3	3	3	9	7	4	7	6	5	4	2	189	
Other Causes ...	F.	4	6	6	7	3	9	10	3	3	6	12	2	2	7	6	4	9	8	—	7	5	2	3	3	6	7	7	9	4	6	5	8	6	2	192		
Deaths Under 1 Year Births ...		41	31	32	22	25	48	13	20	25	22	14	17	24	45	31	28	32	35	44	29	46	68	54	58	12	9	14	33	24	25	18	36	21	26	2	1024	
Deaths Under 1 Year Births ...		506	451	544	436	443	727	210	406	414	582	314	301	382	538	433	348	465	622	796	451	625	680	550	617	401	234	372	410	281	494	386	448	360	387	297	1591	



TABLE IV. DEATH-RATES FROM ALL CAUSES IN WARDS.

Old Wards	Central Wards										Outer Ring																										
	St. Paul's	St. Mary's	Duddleston and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington North	Erdington South	Yardley	Acoc's Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring			
1916	18.722	4.19	7.17	0.21	2.16	5.14	9.18	6.12	4.13	7.11	8.12	2.11	5.12	4.12	5.12	1.13	7.13	3.12	6.12	2.2	9.9	9.8	?	12.7	7.9	10.8	11.0	9.7	9.8	10.5	9.1	10.6	9.9	10.3			
1917	18.219	7.17	2.16	8.17	2.15	0.14	4.16	9.12	9.12	6.10	2.11	0.11	3.11	8.12	2.11	5.12	7.12	7.11	9.10	6.6	9.5	10.3	?	9.1	8.8	9.3	10.9	9.1	10.6	8.6	8.0	7.5	10.1	9.4			
1918	20.022	7.19	7.20	8.20	3.20	9.19	4.20	5.15	5.16	3.12	0.13	4.14	8.14	5.15	6.13	7.15	8.15	7.14	7.13	3.1	11.1	1.7	?	9.8	11.7	10.8	12.3	11.9	11.2	11.8	9.3	11.5	12.5	11.5			
1919	16.817	9.15	8.16	5.18	6.14	0.16	1.16	5.13	1.13	4.11	8.10	7.11	1.13	1.13	3.12	8.13	2.12	3.12	5.11	1.1	10.6	11.4	?	11.1	10.7	10.3	9.5	10.0	11.6	11.1	9.3	8.0	11.3	10.5			
1920	16.920	4.16	3.16	6.17	6.12	8.17	5.16	9.11	8.11	9.11	4.11	1.11	0.12	0.12	8.11	1.13	7.12	7.12	0.11	6.9	4.9	5.5	?	9.5	9.3	10.4	10.4	10.0	10.0	9.0	8.2	10.2	9.8				
Average	18.120	6.17	7.17	5.19	0.15	8.16	5.17	9.13	1.13	6.11	4.11	7.11	9.12	8.13	3.12	2.13	8.13	4.12	7.11	8.10	11.0	5.5	?	10.4	9.7	10.3	10.8	10.1	10.6	10.4	8.9	9.2	10.8	10.3			
1921	14.717	4.13	7.14	2.13	6.14	6.12	6.14	4.11	7.12	1.10	9.2	10.9	9.2	10.5	0.21	4.10	7.11	2.11	3.10	9.10	1.1	3.10	?	9.3	10.2	8.0	8.3	9.1	10.5	7.6	7.8	8.7	8.2	9.2			
1922	15.115	5.13	2.15	9.16	7.15	1.14	8.15	2.12	3.12	6.10	4.10	1.10	9.12	2.12	8.11	8.11	8.11	7.12	2.9	1.9	6.6	?	10.7	10.1	9.2	9.6	10.6	12.3	10.4	7.8	9.5	10.1	10.1				
1923	13.717	1.13	7.13	5.14	0.12	1.12	5.13	8.11	8.11	6.10	1.8	9.7	10.4	10.9	0.6	7.11	4.10	6.10	3.8	9.9	9.8	?	8.9	8.1	8.3	8.7	9.4	11.0	8.8	8.1	7.9	9.8	9.1				
1924	14.115	5.13	4.14	9.15	4.14	9.13	1.14	5.12	3.12	2.8	9.10	1.10	8.10	8.13	0.10	8.11	4.11	8.11	2.11	8.8	8.9	9.8	?	10.6	8.9	9.5	10.0	10.0	1.9	10.0	8.9	10.4	9.8				
1925	14.917	7.13	2.14	5.15	4.13	4.12	6.14	5.12	8.14	1.9	9.2	9.7	11.8	1.11	9.11	3.12	5.12	8.12	0.6	8.1	9.3	?	9.3	8.1	9.6	8.8	9.8	10.4	8.6	8.3	9.3	9.5	9.3				
Average	14.516	6.13	4.14	6.15	0.14	0.13	1.14	5.12	2.12	5.10	9.4	10.3	11.1	12.0	1.11	0.11	5.11	8.11	2.11	3.9	9.3	9.7	?	9.8	9.1	8.9	9.1	9.8	10.9	8.9	8.4	8.9	9.6	9.5			
1926	14.616	9.12	8.14	0.14	6.13	2.12	3.14	1.12	7.12	3.9	7.3	9.0	9.12	0.11	9.11	3.12	1.10	9.10	9.9	9.8	9.6	?	8.1	9.3	7.3	8.6	9.2	9.8	8.2	8.6	10.0	10.3	9.2				
1927	16.216	6.13	1.13	4.14	8.12	5.13	2.14	3.11	5.12	1.9	8.8	8.6	1.2	3.2	1.2	2.12	4.12	5.11	1.1	7.7	9.7	10.6	?	9.4	7.9	8.8	8.10	10.6	9.7	8.9	9.2	10.7	9.7				
1928	14.717	5.12	3.12	9.14	1.13	3.12	9.14	0.12	5.11	6.9	9.7	9.9	1.1	7.12	2.9	7.10	7.10	5.10	8.10	7.9	9.3	9.8	3.2	8.2	9.2	7.8	8.3	7.9	9.5	9.1	9.7	10.2	8.7	8.7			
1929	17.318	1.16	8.16	0.18	7.16	7.15	3.17	0.15	7.15	4.12	1.0	10.3	10.5	14.1	13.9	15.1	14.4	13.6	14.8	11.8	13.0	6.8	10.0	10.2	9.7	9.5	10.6	11.8	10.8	9.8	10.3	11.8	10.8				
1930	12.914	9.12	2.12	5.14	4.14	0.12	5.13	3.11	8.12	2.9	7.8	9.0	1.1	3.12	6.12	7.11	1.10	9.10	8.11	2.10	9.10	5.0	7.6	9.1	8.8	8.0	8.9	10.6	8.3	8.2	7.8	10.2	8.9				
Average	15.116	8.13	4.13	8.15	3.13	9.13	2.14	5.12	8.12	7.10	8.7	9.4	11.8	13.0	11.9	12.1	12.1	11.4	11.9	10.3	10.7	?	8.7	9.1	8.5	8.6	9.3	10.5	9.2	9.0	9.5	10.3	9.5				
1931	14.816	2.13	9.13	5.14	9.15	1.13	1.14	5.12	9.13	9.11	5.9	2.11	4.12	9.12	4.12	1.13	9.12	7.12	3.14	0.9	2.11	7.2	8.6	9.7	7.9	9.1	9.4	9.2	11.1	10.0	7.2	9.2	9.5				
1932	13.215	8.14	2.13	7.13	7.12	6.12	1.13	6.13	1.13	4.10	8.7	1.1	4.12	1.13	2.11	7.11	5.11	4.11	7.13	0.11	1.11	6.7	8.7	9.2	9.0	8.5	10.1	10.7	10.8	10.1	7.2	10.4	9.8				
1933	12.713	7.12	7.12	6.14	2.14	0.13	1.13	3.13	2.12	3.9	9.1	1.2	0.12	8.11	7.11	0.10	0.12	1.11	4.13	0.10	8.12	5.9	8.4	12.1	9.3	8.8	9.1	10.3	9.2	10.0	8.3	8.4	9.7				
1934	12.114	0.12	5.12	2.14	2.13	1.12	0.12	5.13	4.12	3.9	8.9	10.8	13.9	14.2	1.1	6.12	7.12	5.12	0.11	5.11	6.12	5.9	8.4	8.0	8.5	8.7	9.4	10.3	10.7	10.8	8.4	9.7	9.6				
Average	13.214	9.13	3.13	0.14	2.13	7.12	6.13	6.13	1.13	0.10	9.0	11.4	12.9	12.9	11.6	12.0	12.2	11.8	12.9	10.7	11.9	6.4	8.5	9.7	8.7	8.8	9.5	10.1	10.4	10.2	7.8	9.4	9.6				
New Wards	12.613	3.11	4.12	8.13	3.13	2.13	5.12	9.12	2.5	1.8	9.4	9.7	10.0	13.4	12.8	12.1	12.2	12.1	11.6	13.1	10.3	13.7	5.2	8.7	8.1	9.0	8.5	8.7	9.0	6.9	11.8	11.5	11.0	10.3	7.1	8.5	9.5

**NOTE.**—Figures for individual Wards for 1935 cannot be compared with those for preceding years, owing to many alterations in the boundaries of the Wards in November, 1934. The averages for the Groups of Wards (Central, Middle Ring, Outer Ring) may, however, be considered as roughly comparable.



TABLE V. DEATHS UNDER 1 PER 1,000 BIRTHS IN WARDS.

Old Wards	1916	160	159	164	139	150	139	121	147	82	114	93	79	69	70	62	98	96	96	86	94	68	91	?	80	39	83	76	55	76	83	61	59	59	69	72
	1917	115	168	136	132	112	89	112	123	93	105	96	97	94	110	83	73	93	122	97	74	37	71	?	74	80	95	75	90	41	66	77	50	44	69	
	1918	156	148	104	137	120	152	104	132	111	113	70	100	69	99	86	80	101	88	92	83	64	72	?	57	57	67	82	66	66	58	70	89	69	69	
	1919	109	103	105	102	95	120	100	105	79	93	90	64	67	60	64	61	97	88	76	97	71	63	?	39	79	83	47	36	44	76	69	43	79	69	
	1920	112	121	93	111	102	85	105	104	80	78	83	72	80	80	98	64	79	78	79	55	75	51	?	61	47	54	64	73	53	64	43	28	50	55	
	Average	130	140	120	124	116	117	108	122	89	101	86	82	76	84	79	75	93	94	86	81	63	70	?	62	60	76	69	64	56	69	62	50	66	65	
	1921	106	116	104	113	85	117	96	105	87	82	91	75	57	60	62	75	78	104	77	57	72	69	?	44	68	43	62	67	69	47	60	97	42	61	
	1922	105	117	102	115	107	113	102	109	58	84	69	82	68	92	81	75	101	90	80	66	68	51	?	54	69	55	79	56	81	69	41	58	58	62	
	1923	104	103	99	81	93	80	79	91	60	85	68	59	62	59	54	51	67	79	64	54	57	45	?	48	58	73	49	34	49	53	76	21	46	51	
	1924	87	123	103	119	110	81	86	101	68	87	62	95	85	64	83	67	85	80	77	63	67	49	?	70	52	62	50	58	69	74	59	54	57	60	57
1925	120	100	101	106	107	119	73	104	87	104	69	65	58	77	64	70	53	92	74	66	39	64	?	54	32	45	53	55	39	51	66	39	42	50	42	50
Average	104	112	102	107	100	102	87	102	72	88	72	75	66	70	69	68	77	89	74	61	61	56	?	54	56	56	59	54	61	59	60	54	49	57	57	
1926	106	122	79	98	86	106	81	97	52	77	66	43	48	70	52	59	63	65	59	76	98	53	?	46	52	56	48	70	54	69	65	68	90	65	65	
1927	115	115	104	81	89	85	78	95	78	80	73	64	34	73	87	66	89	82	73	81	44	47	?	59	49	66	36	71	42	61	44	45	78	56	56	
1928	71	101	73	89	84	100	69	84	63	57	62	71	59	56	62	46	75	46	60	74	68	34	0	62	40	43	49	47	41	82	54	46	65	50	50	
1929	120	111	125	98	108	73	108	106	80	86	92	69	50	45	51	84	82	72	71	92	46	43	0	56	49	65	68	74	38	76	54	60	58	56	56	
1930	89	75	67	74	91	88	74	80	53	61	37	54	42	55	69	77	63	67	58	65	38	47	63	54	51	55	41	51	49	49	36	38	53	49	53	
Average	100	105	90	88	92	90	82	92	65	72	66	60	47	60	64	66	74	66	64	78	59	45	?	55	48	57	48	63	45	67	51	51	69	55	55	
1931	85	107	87	86	99	103	105	96	86	87	76	59	48	61	70	83	100	80	75	83	33	60	57	55	59	55	63	45	49	66	60	44	37	55	55	
1932	92	105	98	77	87	76	69	86	52	97	48	61	73	87	46	63	62	74	66	95	37	63	72	56	56	58	59	53	45	47	76	43	43	57	57	
1933	82	73	72	100	85	79	75	81	56	59	70	54	99	65	44	72	69	74	66	60	75	49	67	58	45	66	64	60	65	37	38	76	68	59	59	
1934	66	85	87	101	81	106	84	87	77	70	56	42	48	112	68	72	60	83	69	68	55	63	48	87	52	34	62	64	66	44	49	67	50	58	58	
Average	81	92	86	91	88	91	83	87	68	78	62	54	67	81	57	72	73	78	69	76	50	59	61	64	53	53	62	55	56	48	56	57	49	57	57	
New Wards	1935	94	98	66	74	100	84	85	72	59	58	30	80	51	50	62	64	69	59	85	38	45	55	49	60	56	80	67	81	38	47	69	38	63	56	56
	St. Paul's	160	159	164	139	150	139	121	147	82	114	93	79	69	70	62	98	96	96	86	94	68	91	?	80	39	83	76	55	76	83	61	59	59	69	72
	St. Mary's	156	148	104	137	120	152	104	132	111	113	70	100	69	99	86	80	101	88	92	83	64	72	?	57	57	67	82	66	66	58	70	89	69	69	
	Duddeston and Neebells	109	103	105	102	95	120	100	105	79	93	90	64	67	60	64	61	97	88	76	97	71	63	?	39	79	83	47	36	44	76	69	43	79	69	
	St. Bartholomew's	112	121	93	111	102	85	105	104	80	78	83	72	80	80	98	64	79	78	79	55	75	51	?	61	47	54	64	73	53	64	43	28	50	55	
	St. Martin's	130	140	120	124	116	117	108	122	89	101	86	82	76	84	79	75	93	94	86	81	63	70	?	62	60	76	69	64	56	69	62	50	66	65	
	Market Hall	139	139	139	139	150	139	121	147	82	114	93	79	69	70	62	98	96	96	86	94	68	91	?	80	39	83	76	55	76	83	61	59	59	69	
	Ladywood	121	121	121	121	150	139	121	147	82	114	93	79	69	70	62	98	96	96	86	94	68	91	?	80	39	83	76	55	76	83	61	59	59	69	
	Central Wards	147	147	147	147	150	139	121	147	82	114	93	79	69	70	62	98	96	96	86	94	68	91	?	80	39	83	76	55	76	83	61	59	59	69	
	King's Norton	63	38	47	69	38	63	56	58	56	58	56	58	56	58	56	58	56	58	56	58	56	58	56	58	56	58	56	58	56	58	56	58	56	58	56

NOTE.—Figures for individual Wards for 1935 cannot be compared with those for preceding years, owing to many alterations in the boundaries of the Wards in November, 1934. The averages for the Groups of Wards (Central, Middle Ring, Outer Ring) may, however, be considered as roughly comparable.



TABLE VI. BIRTH-RATES IN WARDS.

Old Wards	St. Paul's	St. Mary's	Duddeston and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington North	Erdington South	Yardley	Acceck's Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring				
1916	28.9	29.3	30.9	28.8	28.0	19.8	25.8	27.4	20.8	28.8	23.8	26.0	21.8	23.0	19.5	32.3	8.26	8.22	9.19	3.18	0.0	?	?	19.4	419.8	19.4	22.7	717.6	15.7	24.0	21.3	19.0	019.6					
1917	26.7	23.3	27.5	28.5	24.5	18.8	23.2	24.6	19.4	23.1	20.4	20.2	19.9	19.2	18.1	13.4	20.7	22.1	19.7	13.2	16.5	15.0	?	?	14.9	419.9	19.7	712.8	13.4	19.2	14.5	16.2	16.4	16.1				
1918	24.7	24.1	29.2	27.3	24.3	21.6	23.9	25.0	19.2	21.3	20.0	20.1	18.6	18.0	18.2	13.8	21.3	22.2	19.3	14.7	12.5	14.4	?	?	16.2	415.9	18.8	713.0	13.5	18.1	11.6	320.9	14.0	15.9				
1919	29.1	28.6	29.0	29.1	21.5	26.6	27.6	27.6	24.8	24.4	21.2	21.9	17.9	19.8	18.5	15.0	22.0	23.3	20.0	17.3	14.7	16.0	?	?	17.2	419.2	18.1	714.5	14.8	21.1	11.5	017.2	15.3	16.8				
1920	37.6	37.2	39.9	35.9	34.9	30.0	23.3	35.3	25.2	23.2	27.9	28.6	23.4	25.5	18.8	30.2	23.1	32.6	8.23	8.21	7.21	4.0	?	?	24.7	22.8	26.4	419.3	19.9	26.7	21.3	22.9	19.6	22.7				
Average	29.4	28.5	31.3	29.9	28.2	22.4	26.6	28.0	20.6	25.9	22.7	22.2	20.3	21.2	19.9	32.3	8.25	8.21	9.17	7.17	16.9	17.0	?	?	18.5	419.0	20.5	715.4	15.5	21.8	17.7	19.3	16.9	18.2				
1921	31.8	35.7	32.9	32.3	30.0	28.0	30.8	31.8	28.1	28.7	23.8	23.9	20.5	23.3	22.5	15.2	22.4	25.0	20.3	20.1	16.4	17.7	?	?	21.1	20.0	20.5	019.3	14.8	20.8	18.0	19.6	20.2	19.2				
1922	29.7	30.8	27.5	28.6	28.0	25.4	27.3	28.1	25.4	25.4	21.9	20.6	18.3	20.2	21.5	14.1	22.6	23.6	20.7	18.7	15.0	15.4	?	?	20.7	18.9	18.0	017.4	13.7	17.6	17.5	15.3	17.1					
1923	28.2	30.3	32.7	32.9	27.0	20.7	25.8	26.9	18.4	23.1	22.1	21.6	15.8	18.3	18.3	13.5	21.7	21.9	19.9	16.0	14.1	14.2	?	?	18.1	16.8	17.4	017.1	13.2	17.7	120.8	13.0	16.3					
1924	28.0	28.1	27.0	26.8	24.1	20.7	21.9	25.2	17.4	23.1	20.6	18.4	14.1	16.9	18.4	13.3	19.3	20.6	18.2	15.1	12.7	12.8	?	?	17.1	17.7	15.0	016.7	12.8	15.7	14.5	19.8	14.5	15.4				
1925	23.5	28.3	32.5	32.5	12.4	619.5	22.2	22.4	11.6	722.5	19.7	19.7	14.6	16.4	17.0	12.0	19.9	20.1	17.9	16.3	12.4	12.6	?	?	20.3	14.9	16.3	16.7	17.1	11.5	16.0	217.7	11.0	15.2				
Average	28.2	30.6	32.8	32.7	20.1	25.2	27.1	28.1	18.5	24.6	21.6	20.8	16.6	19.2	19.6	13.6	21.7	22.2	19.9	17.2	14.1	14.5	?	?	19.5	417.0	17.6	17.9	17.4	13.3	17.6	16.3	19.1	14.8	16.6			
1926	25.4	27.8	24.8	24.8	23.8	18.9	22.9	24.1	17.6	20.0	18.8	19.8	15.3	15.4	17.0	12.1	18.0	19.4	17.4	14.2	12.6	11.0	?	?	20.8	14.8	16.5	14.3	17.1	12.5	14.1	11.6	511.5	14.6				
1927	25.4	25.8	23.1	23.2	019.2	20.4	22.7	16.4	19.9	17.7	17.7	17.7	15.2	15.3	16.0	11.6	16.5	17.6	16.4	14.1	12.2	11.7	?	?	20.3	14.8	19.4	13.6	21.5	13.6	13.6	18.3	11.2	15.0				
1928	24.0	27.3	32.2	42.1	5.22	21.8	418.9	22.1	11.6	11.9	8.7	5.17	7.15	2.15	3.16	0.11	6.16	5.17	6.16	5.13	1.11	5.10	2.0	8.4	18.5	15.2	19.9	18.8	712.6	13.2	13.3	315.3	12.5	14.3				
1929	23.8	25.6	20.4	21.5	22.2	319.1	119.8	21.8	8.15	3.17	8.16	4.17	4.14	9.14	4.14	2.11	0.15	8.17	0.15	4.11	5.10	9.12	0.16	16.8	18.6	16.8	1.20	0.16	0.12	8.13	0.13	4.16	0.12	6.14	9.0			
1930	22.5	25.3	32.1	620.9	21.8	17.6	619.5	21.3	16.4	18.5	6.14	4.15	6.15	4.15	2.12	3.18	4.18	4.16	0.11	8.10	5.11	7.27	?	?	27.7	18.9	18.1	17.5	21.1	16.7	13.1	12.6	21.3	12.5	16.2			
Average	24.2	26.4	32.2	42.2	4.18	620.3	22.4	16.4	19.3	17.2	17.4	15.2	15.2	15.2	15.8	11.7	2.18	1.16	3.12	9.11	5.11	3.0	?	?	19.4	15.9	18.2	17.7	16.7	13.3	13.3	4.13	4.17	5.12	1.15	0.0		
1931	21.4	22.2	20.5	21.9	917.6	17.7	20.1	11.5	719.4	15.9	14.3	14.7	15.2	14.4	9.7	14.3	16.4	15.0	10.7	10.1	12.6	11.0	?	?	21.6	34.8	17.4	15.9	15.2	18.7	13.4	13.6	12.2	22.9	12.4	16.1		
1932	21.5	20.6	21.5	20.6	18.5	19.4	19.6	16.3	17.8	14.6	14.6	14.6	13.7	14.7	13.3	10.7	16.0	16.6	14.8	10.7	11.7	10.4	?	?	22.7	13.6	15.5	17.8	15.3	13.4	13.4	21.1	9.21	1.12	4.4	9.9		
1933	18.9	19.3	18.1	18.7	18.4	17.7	16.2	18.2	13.1	11.5	0.13	1.12	7.12	4.14	7.13	4.8	6.13	9.13	8.13	1.10	5.10	2.10	4.22	2.13	8.13	5.14	2.14	9.13	2.10	8.12	8.11	3.20	1.10	4.13	4.4			
1934	18.5	20.2	19.8	17.5	19.2	15.7	16.8	21.4	7.16	5.14	1.12	2.12	6.15	2.13	5.9	0.14	2.14	0.13	6.10	0.11	4.11	0.23	8.13	2.15	1.16	0.15	1.13	8.11	8.12	6.11	4.20	9.11	2.14	1.1	2.14	1.1		
Average	20.1	20.6	20.9	4.19	0.16	617.5	19.0	14.9	17.2	14.4	13.4	13.4	13.4	13.6	9.5	14.6	15.2	14.1	10.5	10.8	11.1	127.1	14.5	14.5	14.5	15.2	16.6	14.5	12.3	13.0	11.7	21.1	2.11	6.14	6.6			
New Wards	St. Paul's	St. Mary's	Duddeston and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington	Gravelly Hill	Bromford	Stechford	Vardley	Acceck's Green	Hall Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring	
1935	18.4	18.5	20.0	19.2	18.4	15.9	18.4	18.4	14.8	16.1	11.1	8.13	7.13	9.16	2.13	3.7	14.4	4.14	5.13	6.11	5.11	5.12	2.20	9.14	4.13	6.16	3.19	1.15	0.14	5.15	5.11	8.12	3.12	8.12	7.16	9.12	0.14	4.3

NOTE.—Figures for individual Wards for 1935 cannot be compared with those for preceding years, owing to many alterations in the boundaries of the Wards in November, 1934. The averages for the Groups of Wards (Central, Middle Ring, Outer Ring) may, however, be considered as roughly comparable.



TABLE VII.

*Cases of Infectious Disease notified during the Year 1935. Classified according to sex and ages.*

DISEASE.	Sex.	AGES.												TOTALS.	
		0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-	65-		75 up.
Enteric Fever	M.	—	—	2	2	1	1	1	2	2	2	—	—	—	11
	F.	1	—	4	4	2	3	2	2	1	1	—	—	—	17
Scarlet Fever	M.	5	32	328	777	309	112	51	45	24	4	1	1	—	1,689
	F.	5	42	308	761	469	125	86	76	21	7	2	—	—	1,902
Diphtheria	M.	7	27	149	220	67	25	7	14	3	4	1	—	—	524
	F.	4	11	114	252	113	45	23	26	9	5	2	1	—	605
Erysipelas	M.	11	4	8	10	12	4	17	25	41	66	49	19	16	282
	F.	8	4	3	13	9	23	15	36	46	85	47	45	16	350
Pulmonary Tuberculosis	M.	2	4	17	24	16	52	76	102	92	97	74	18	4	578
	F.	3	3	7	23	12	63	106	102	55	41	23	6	1	445
Tubercular Meningitis	M.	2	1	4	1	—	—	—	—	—	—	—	—	—	8
	F.	—	2	2	2	3	—	—	—	—	—	—	—	—	9
Tuberculosis of Peritoneum and Intestines	M.	—	—	1	1	1	1	3	3	1	2	1	—	—	14
	F.	—	—	—	2	1	2	3	2	2	—	—	—	—	12
Other forms of Tuberculosis	M.	2	3	11	14	6	6	10	7	4	4	1	—	—	68
	F.	1	2	5	18	13	2	9	13	6	4	4	2	—	79
Encephalitis Lethargica	M.	—	—	—	—	—	—	—	3	2	3	2	3	—	13
	F.	—	—	—	—	—	1	—	2	4	3	5	—	—	15
Cerebro-Spinal Fever	M.	5	3	1	1	—	—	1	—	—	—	—	—	—	11
	F.	2	1	2	—	1	—	—	—	—	—	—	—	—	6
Pneumonia	M.	103	85	138	144	50	54	78	129	174	152	111	52	19	1,289
	F.	67	60	129	93	33	28	39	76	65	55	63	61	20	789
Puerperal Fever	M.	—	—	—	—	—	—	21	59	20	—	—	—	—	104
	F.	—	—	—	—	—	4	—	—	—	—	—	—	—	—
Puerperal Pyrexia	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	9	43	90	29	1	—	—	—	172
Ophthalmia Neonatorum	M.	658	—	—	—	—	—	—	—	—	—	—	—	—	658
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL		886	284	1,230	2,362	1,118	560	591	814	601	534	386	208	76	9,650

Smallpox—0 ; Malaria—3 Males, 0 Females ; Dysentery—37 Males, 36 Females ; Poliomyelitis—5 Males, 4 Females ; Polio-encephalitis—1 Male, 1 Female ; Continued Fever—Male 1.





TABLE IX. PULMONARY TUBERCULOSIS. CASE-RATES IN WARDS.

Old Wards	St. Paul's	St. Mary's	Duddon and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington North	Erdington South	Yardley	Acoc's Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring			
1916	5.11	6.75	6.64	6.66	5.66	4.33	4.30	5.64	3.87	3.53	3.99	4.19	4.44	3.67	3.15	2.81	4.05	3.94	3.76	2.86	2.35	2.78	?	1.66	2.17	2.50	2.65	2.53	1.64	2.27	2.14	1.87	1.19	2.20			
1917	5.26	5.67	4.52	6.32	4.36	1.34	1.25	2.03	3.47	3.03	4.22	2.93	3.42	2.85	3.12	1.63	6.23	7.73	1.12	1.72	6.12	5.9	?	2.25	2.21	2.31	3.58	2.81	1.33	2.79	1.97	1.82	1.85	2.33			
1918	5.46	4.42	4.34	5.33	5.32	5.66	8.05	3.33	1.33	0.92	7.22	0.83	4.03	5.62	9.72	2.81	4.04	3.35	1.21	3.81	9.83	4.8	?	2.24	2.46	2.15	2.66	2.49	2.12	2.53	1.35	3.33	1.80	2.31			
1919	4.30	4.94	4.13	4.00	4.45	3.99	4.14	2.83	3.30	3.22	0.51	0.99	2.30	2.62	2.79	2.24	0.22	8.92	7.42	5.51	3.52	8.9	?	2.14	2.36	1.90	2.70	2.23	1.22	2.34	1.66	1.90	1.81	2.08			
1920	3.63	4.91	4.09	4.23	4.13	2.62	4.12	3.96	2.56	2.95	2.39	2.48	2.11	2.61	2.75	1.50	4.16	3.20	2.67	2.81	4.82	8.4	?	2.41	2.19	2.18	2.13	2.03	1.83	2.43	1.65	2.04	1.78	2.14			
Average	4.755	3.44	4.74	5.314	7.84	5.54	7.04	8.83	2.73	1.62	9.12	6.13	1.23	0.62	9.62	3.03	9.83	4.33	0.82	3.51	9.52	9.2	?	2.142	2.282	2.12	7.42	2.421	6.32	4.71	7.52	1.19	6.92	2.21			
1921	3.13	4.93	4.41	2.51	3.01	2.80	2.55	2.99	2.20	2.65	2.11	1.76	1.58	2.21	2.00	1.28	2.33	2.62	0.41	5.41	0.82	0.9	?	1.44	1.46	1.81	1.47	2.05	1.62	1.41	0.77	0.83	1.39	1.46			
1922	2.23	2.02	2.80	2.47	3.42	2.40	2.21	2.68	1.59	1.74	1.81	1.17	1.41	1.21	1.71	1.21	1.63	1.81	1.60	1.50	0.62	1.17	?	1.71	1.40	1.45	2.01	2.80	0.84	1.74	0.67	1.81	1.44	1.31			
1923	2.13	1.14	3.29	2.51	3.88	2.46	1.97	2.76	1.90	1.95	1.79	1.41	1.69	1.88	2.22	1.40	2.28	1.60	1.81	1.40	0.61	1.31	?	1.52	1.39	1.39	1.35	1.57	1.31	1.04	1.09	1.22	1.08	1.25			
1924	2.16	3.02	2.69	2.40	4.39	2.11	2.10	2.70	1.65	2.43	1.88	1.62	1.54	1.32	2.09	1.01	2.20	1.62	1.74	1.38	0.76	1.31	?	0.92	1.52	1.27	1.34	1.25	1.11	0.93	1.34	1.28	1.53	1.23			
1925	1.54	2.37	2.22	2.44	3.41	1.90	1.85	2.25	1.59	2.05	1.37	1.34	1.44	1.09	1.58	1.09	1.62	1.10	1.43	1.90	0.97	1.47	?	1.49	0.92	0.99	1.06	1.34	0.75	1.14	0.11	1.47	0.81	1.12			
Average	2.243	0.42	2.86	2.473	6.22	3.32	1.42	6.81	7.92	1.61	7.91	4.61	1.54	1.58	2.01	2.02	0.11	1.68	1.72	1.33	0.81	1.47	?	1.421	1.341	1.381	2.81	1.62	1.13	2.50	0.98	3.21	2.51	2.27			
1926	2.28	2.50	2.21	1.89	2.52	1.46	1.62	2.07	1.62	1.98	1.86	1.30	0.83	1.22	1.85	0.97	1.33	1.13	1.41	0.64	0.96	1.27	?	0.95	1.03	0.78	0.88	1.02	0.67	1.21	0.83	2.06	1.32	1.05			
1927	2.01	2.87	2.14	1.97	2.24	1.90	1.90	2.15	1.36	1.69	1.05	1.45	0.95	1.14	1.53	1.02	1.52	1.35	1.30	1.43	0.80	0.61	?	0.63	0.72	0.87	0.53	0.91	0.87	1.33	1.16	1.30	0.70	0.92			
1928	1.90	2.52	2.28	1.80	2.52	1.55	1.89	2.07	1.48	1.82	0.60	0.98	1.12	1.29	1.10	0.92	1.34	1.56	1.27	1.23	0.81	0.25	0.00	0.92	1.17	1.25	0.73	0.93	0.71	1.32	1.00	1.33	0.81	0.98			
1929	2.08	1.90	2.45	1.50	1.98	2.07	1.46	1.92	1.27	1.92	0.95	0.97	0.92	1.17	1.27	0.75	1.54	1.55	1.23	1.09	0.90	0.97	2.50	1.09	0.83	1.47	1.00	0.78	0.60	0.70	0.56	1.30	0.96	1.05			
1930	2.05	1.66	1.74	1.41	1.76	1.55	2.06	1.75	1.72	1.89	1.16	0.93	1.15	0.87	1.53	0.65	1.30	1.39	1.26	0.92	1.03	1.01	0.49	1.24	1.10	1.19	1.70	0.80	0.58	1.01	0.58	0.91	0.46	0.89			
Average	2.062	2.29	2.16	1.712	2.201	1.71	1.791	1.991	1.491	1.861	2.21	1.30	0.991	1.14	1.46	0.861	1.41	1.401	1.291	1.060	0.971	1.02	?	0.970	0.971	1.10	0.860	0.890	0.691	1.10	0.831	1.380	0.850	0.98			
1931	1.71	2.49	2.38	1.68	1.94	2.26	1.90	2.05	1.55	1.59	1.18	1.20	1.48	1.35	1.40	0.92	1.38	1.12	1.42	1.19	0.82	0.65	1.30	1.29	1.15	0.78	1.00	0.94	0.74	0.87	0.56	1.20	0.82	0.96			
1932	1.69	1.76	2.97	1.74	1.54	1.45	2.21	1.91	1.19	1.75	1.11	1.33	1.03	1.19	1.39	0.79	1.43	1.58	1.28	1.02	0.87	0.77	0.82	0.95	0.80	1.11	0.84	0.45	0.66	1.09	0.73	1.15	0.49	0.84			
1933	1.36	1.86	2.21	1.81	1.59	1.54	1.71	1.73	1.56	1.67	1.10	0.98	1.01	1.11	1.03	1.25	1.04	1.31	1.21	1.19	1.05	1.31	1.18	0.99	0.95	1.09	0.93	0.85	0.65	1.13	0.69	1.15	0.62	0.98			
1934	1.74	1.79	1.73	1.50	2.19	1.73	1.33	1.71	1.34	0.98	1.18	1.23	1.12	1.03	1.27	0.96	1.37	1.16	1.16	1.57	0.96	1.33	0.79	0.85	0.78	1.01	0.85	0.47	0.63	1.08	0.77	0.90	0.73	0.91			
Average	1.621	1.972	3.2	1.681	1.811	1.741	1.791	1.851	1.411	1.501	1.141	1.181	1.161	1.171	1.270	0.981	1.301	1.541	2.71	2.40	9.21	0.1	1.021	0.020	0.921	0.000	0.930	0.680	0.671	0.040	0.691	1.100	0.660	0.92			
New Wards	St. Paul's	St. Mary's	Duddon and Nechells	St. Bartholomew's	St. Martin's	Market Hall	Ladywood	Central Wards	Lozells	Aston	Washwood Heath	Saltley	Small Heath	Sparkbrook	Balsall Heath	Edgbaston	Rotton Park	All Saints'	Middle Ring	Soho	Sandwell	Handsworth	Perry Barr	Erdington	Gravelly Hill	Bromford	Stechford	Yardley	Acoc's Green	Hall Green	Sparkhill	Moseley and King's Heath	Selly Oak	King's Norton	Northfield	Harborne	Outer Ring
1935	1.07	1.72	1.65	1.66	1.54	0.82	1.16	1.37	0.96	1.01	0.86	0.78	0.75	1.18	1.43	0.48	1.15	1.32	0.99	1.47	0.44	0.85	0.74	0.82	0.85	1.07	0.85	0.54	0.86	0.77	0.64	0.42	0.93	0.93	0.57	0.72	0.79

NOTE.—Figures for individual Wards for 1935 cannot be given.

NOTE.—Figures for individual Wards for 1935 cannot be compared with those for preceding years, owing to many alterations in the boundaries of the Wards in November, 1934. The averages for the Groups of Wards (Central, Middle Ring, Outer Ring) may, however, be considered as roughly comparable.



TABLE X.

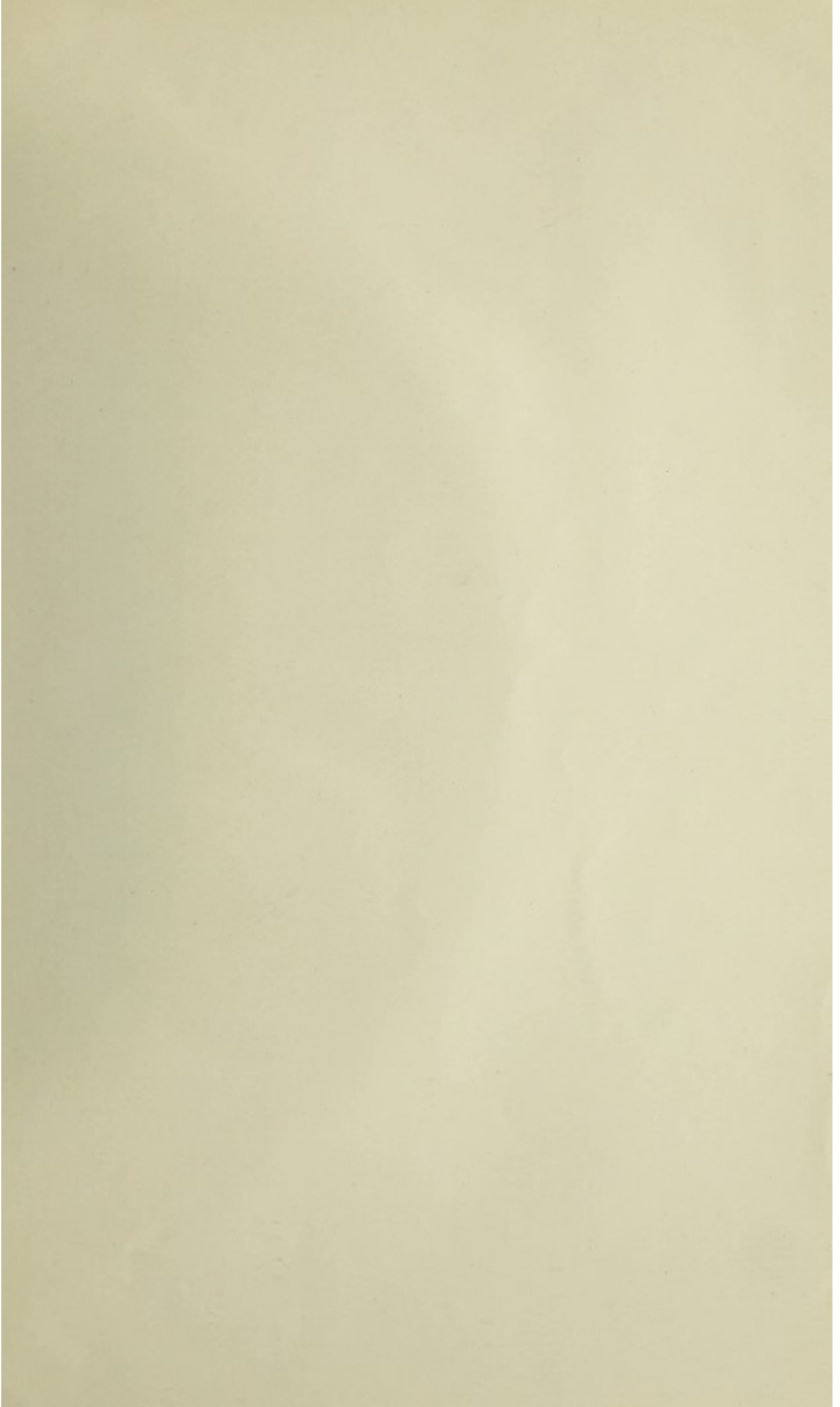
*Meteorology and Mortality in each week of the year 1935.*

WEEK.			Total Deaths.	Deaths under 1 year.	DEATHS FROM						TEMPERATURE of the Air.				Horizontal Movement of Air in Miles.	Hours of Sunshine	Rainfall in Inches
No.	Ending.	1935.			Measles.	Whooping Cough.	Diarrhoea and Enteritis under 2.	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.	Respiratory Diseases.	Highest in Shade.	Lowest in Shade.	Mean of Daily Maxima and Minima.	of			
														Ground			
1	Jan. 5	230	18	—	—	2	11	—	32	53	36	46.6	48.3	2065	8.3	0.44	
2	" 12	226	14	—	—	—	14	1	24	46	29	35.1	48.4	1544	10.1	0.39	
3	" 19	254	28	—	2	1	17	1	23	49	34	41.6	47.0	1449	4.0	0.17	
4	" 26	226	13	—	2	1	15	1	29	50	33	40.8	46.9	2245	9.3	0.40	
5	Feb. 2	255	19	—	1	4	25	3	28	54	27	39.2	46.3	2096	13.2	0.12	
6	" 9	241	14	—	—	—	17	1	21	53	30	39.1	46.0	1735	10.2	0.80	
7	" 16	230	12	1	—	2	14	2	19	55	34	45.5	45.6	2458	14.5	0.15	
8	" 23	247	22	1	1	1	12	4	32	52	33	43.7	46.1	2362	9.2	0.80	
9	Mar. 2	222	23	—	2	—	13	—	25	46	28	39.2	46.0	1550	18.6	0.77	
10	" 9	252	24	—	—	—	21	—	27	49	27	39.9	45.0	1507	21.1	0.25	
11	" 16	231	23	—	1	3	11	3	28	49	29	38.0	44.8	2013	19.0	0.13	
12	" 23	257	29	2	2	2	15	2	40	60	40	49.3	45.2	1493	35.9	0.18	
13	" 30	242	25	1	5	1	20	4	29	58	37	48.3	46.0	1614	30.5	0.06	
14	April 6	216	20	2	—	1	12	—	32	54	32	41.4	46.2	2574	30.4	0.61	
15	" 13	274	32	1	1	4	22	2	37	58	37	47.4	45.7	2224	40.5	0.98	
16	" 20	255	21	3	1	1	20	2	30	58	35	47.2	46.2	1571	30.3	1.60	
17	" 27	246	23	5	1	2	16	2	27	59	37	48.6	46.7	1610	26.7	0.21	
18	May 4	230	28	—	2	1	12	—	31	68	38	51.0	47.1	1298	28.5	0.09	
19	" 11	211	20	2	4	2	16	3	26	72	40	53.5	48.0	1817	53.2	0.01	
20	" 18	175	15	—	1	2	16	1	23	53	30	42.4	48.1	1834	37.2	0.32	
21	" 25	226	11	5	1	—	15	1	18	65	35	48.8	47.7	2295	50.1	0.81	
22	June 1	200	19	—	1	1	11	1	26	68	42	52.1	48.4	1639	29.9	0.69	
23	" 8	225	23	3	2	4	14	2	15	65	44	54.8	49.2	1820	37.2	0.72	
24	" 15	188	16	7	—	2	17	3	12	66	43	55.6	50.0	1803	45.3	0.54	
25	" 22	190	25	2	1	—	11	4	18	84	46	59.6	50.8	1510	35.7	0.58	
26	" 29	189	24	3	—	2	19	2	12	83	50	66.8	52.8	1434	65.1	0.43	
27	July 6	187	11	—	1	—	8	—	12	77	54	64.0	53.5	1744	47.5	0.08	
28	" 13	193	21	4	1	2	11	2	9	86	50	67.0	54.8	1122	73.9	0.00	
29	" 20	182	19	—	—	3	15	1	12	79	50	62.6	55.7	1495	38.6	0.33	
30	" 27	187	17	—	—	4	9	2	11	76	48	63.9	55.6	1349	42.7	0.00	
31	Aug. 3	153	20	1	2	7	10	2	13	75	47	61.9	56.1	1518	51.5	0.00	
32	" 10	178	20	—	2	6	11	1	11	83	52	67.4	56.8	1012	72.8	0.34	
33	" 17	184	21	2	2	8	11	1	21	76	47	61.1	57.0	1225	25.0	0.07	
34	" 24	191	16	—	3	1	14	3	11	81	55	66.4	57.3	1032	54.9	0.56	
35	" 31	152	10	—	4	1	9	1	7	76	44	58.1	57.3	1155	28.1	1.18	
36	Sept 7	185	17	2	1	5	11	1	9	68	45	57.4	56.4	1451	34.3	0.33	
37	" 14	176	17	1	—	6	15	—	11	67	44	57.8	55.8	1375	28.6	0.11	
38	" 21	180	15	1	—	1	12	1	11	66	47	55.9	55.3	2431	26.2	1.77	
39	" 28	199	28	1	1	6	10	—	14	69	41	54.4	54.9	1701	25.9	1.46	
40	Oct. 5	185	19	—	—	2	17	3	20	62	41	51.5	54.3	1508	22.7	0.86	
41	" 12	205	19	—	2	4	11	1	9	60	40	50.1	53.9	1797	42.2	0.68	
42	" 19	163	12	—	1	1	8	1	8	62	43	52.0	53.0	2120	15.4	0.49	
43	" 26	213	22	—	—	6	10	2	15	53	32	41.9	52.7	1160	16.0	0.58	
44	Nov. 2	204	26	1	1	4	18	2	20	59	40	50.9	51.3	2333	5.5	1.08	
45	" 9	187	18	—	—	3	17	1	15	60	37	46.1	51.1	1375	12.5	0.95	
46	" 16	203	10	—	—	1	14	2	15	51	33	43.1	50.8	1679	19.9	1.90	
47	" 23	203	18	—	—	7	16	1	17	48	36	42.8	49.5	2098	5.0	1.87	
48	" 30	208	18	—	3	4	12	1	17	55	30	42.0	49.1	2146	13.2	0.84	
49	Dec. 7	236	19	—	2	2	10	3	25	44	32	37.6	48.2	2027	16.5	0.52	
50	" 14	234	17	—	2	—	23	1	26	46	33	37.8	47.2	2298	4.7	0.19	
51	" 21	296	21	—	2	—	14	1	34	43	26	33.4	46.6	1563	7.9	0.21	
52	" 28	314	20	—	2	—	10	1	51	47	22	37.0	45.4	1551	6.6	2.05	



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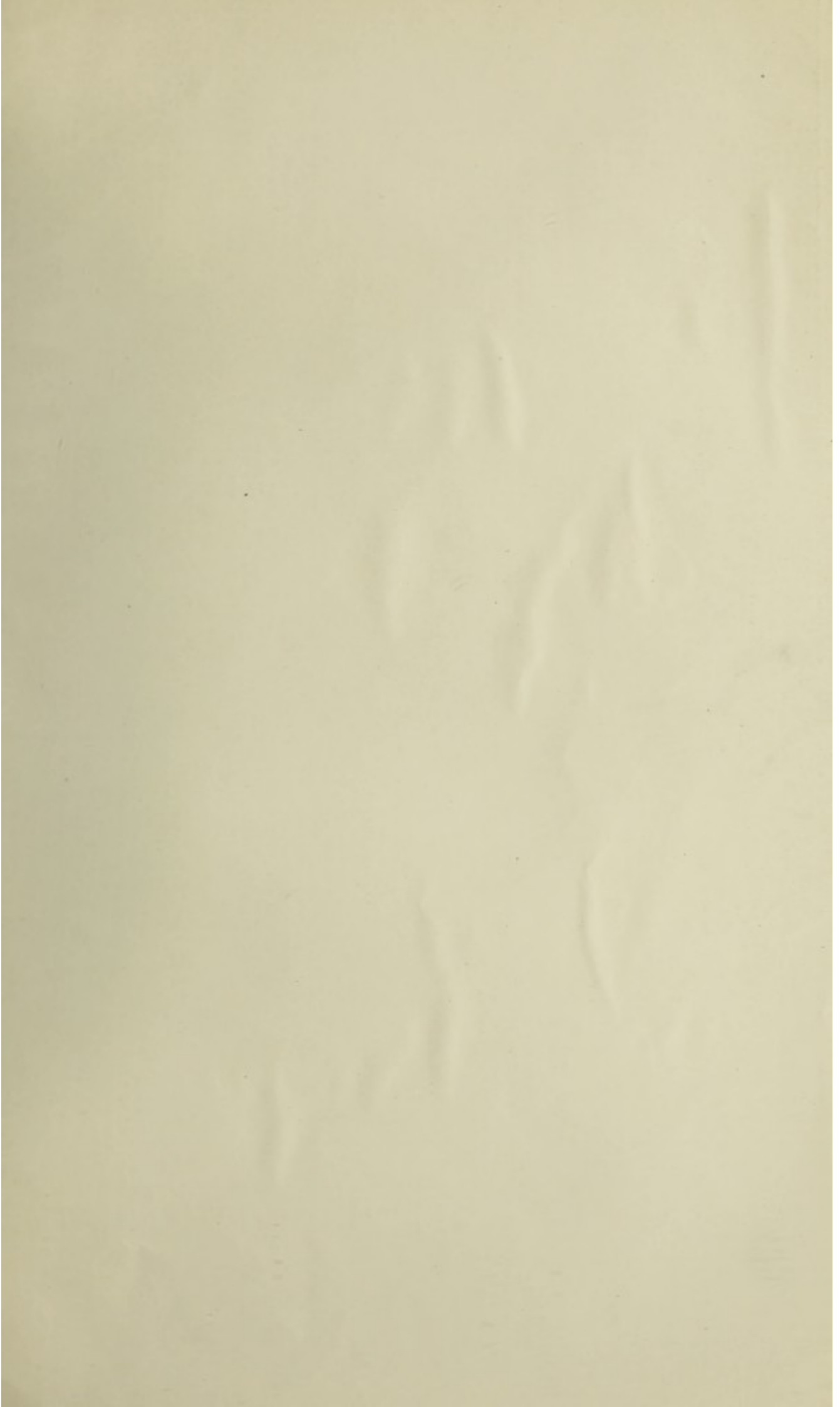
The first part of the book is devoted to a general survey of the history of the English language, from its origin to the present time. The author discusses the influence of various factors on the development of the language, such as the contact with other languages, the social and political changes, and the literary movements. He also examines the changes in the pronunciation, grammar, and vocabulary of the language over the centuries.

The second part of the book is a detailed study of the English language in the Middle Ages. The author discusses the influence of Old English, Middle English, and Modern English on the development of the language. He also examines the changes in the pronunciation, grammar, and vocabulary of the language during this period.

The third part of the book is a study of the English language in the Renaissance. The author discusses the influence of Latin, French, and Italian on the development of the language. He also examines the changes in the pronunciation, grammar, and vocabulary of the language during this period.

The fourth part of the book is a study of the English language in the 17th and 18th centuries. The author discusses the influence of Latin, French, and Italian on the development of the language. He also examines the changes in the pronunciation, grammar, and vocabulary of the language during this period.

The fifth part of the book is a study of the English language in the 19th and 20th centuries. The author discusses the influence of Latin, French, and Italian on the development of the language. He also examines the changes in the pronunciation, grammar, and vocabulary of the language during this period.





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