

**[Report 1941] / Medical Officer of Health, Birmingham.**

**Contributors**

Birmingham (England). Council.

**Publication/Creation**

1941

**Persistent URL**

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CITY OF BIRMINGHAM

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REPORT OF THE  
MEDICAL OFFICER  
OF HEALTH

FOR THE YEAR

1941



BIRMINGHAM :

The Birmingham Printers, Ltd.,  
Hill Street and Station Street.

CITY OF BIRMINGHAM

REPORT OF THE  
MEDICAL OFFICER  
OF HEALTH

FOR THE YEAR

1911

BIRMINGHAM  
The Birmingham City Council  
and Health Officer

PUBLIC HEALTH DEPARTMENT,  
THE COUNCIL HOUSE,  
BIRMINGHAM.

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

As in my report for 1940, and for the same reasons of general policy, figures as to population and certain other particulars of numbers, as distinct from rates, have been omitted from the abridged report for 1941 here presented.

Taking the population as a whole, and ignoring direct air raid casualties, the circumstances of war have not had any noticeable influence, adverse or otherwise, on the civic health, except in the directions particularised below. Apart from these, it can be claimed that in 1941 Birmingham maintained in a conspicuous degree its standard of health in the face of all the stress which war has imposed. The exceptions were in relation to the continued relatively heavy infant mortality, which brought us back to the position attained some ten years ago; the prevalence, though in a lower degree than in 1940, of cerebro-spinal fever; a relatively slight increase in tuberculosis of the lungs; a rise in a comparatively grave type of diphtheria, which the City shared with other parts of the country; the widespread occurrence of scabies as an unpleasant skin contagion, accentuated in a measure by the movement of persons incidental to the war; and some rise in the illegitimate birth-rate.

The year saw two fairly large outbreaks of food-borne infection: one of para-typhoid B fever, spread by infected synthetic cream in fancy pastry; the other of trichiniasis, a disease due to the invasion of muscles and other tissues by a minute worm-like parasite derived from "measled" pork, on this occasion in sausages, consumed in an insufficiently cooked condition. With the co-operation of the trade and the public, both outbreaks were brought to a comparatively rapid close.

The general death-rate was slightly lower than that for 1940, and the birth-rate was almost identical in the two years, and higher than any birth-rate since 1931.

The maternal mortality, while somewhat higher than the very low figure for 1941, was nevertheless a relatively low one and reflects great credit on the doctors, midwives, nurses, institutional staff and health visitors who have played their several parts in attaining such a result, despite the acute shortage of personnel and the limitation of accommodation available.

For our hospitals—both for general and for infectious diseases—our sanatoria, maternity homes and children's institutions the year was uniformly one of activity, under conditions usually of considerable strain. Shortage of nursing and domestic staff, and in the maternity and children's institutions shortage of bed accommodation, have made the work often most difficult.

Much attention has been given to medical work for mother and child through our child welfare centres, and through personal advice by health visitors linking up with the work of many other agents to the same end.

Throughout the year, overcrowding continued to be one of our major problems and one with which, under present circumstances, it is most difficult to cope.

I should like to place on record my grateful appreciation of faithful service rendered by all ranks and sections of the Public Health Department, and of the considerate and generous support which has been received, Mr. Chairman, from yourself and from members of the Public Health and Maternity and Child Welfare Committee throughout the year

I am,

Your obedient Servant,

H. P. NEWSHOLME,

*Medical Officer of Health.*

## SECTION A

### SUMMARY OF STATISTICS

For the Year 1941

Area (in acres) .. .. .	51,147
Population (Census, 1931) .. .. .	1,002,603
Pre-war population, estimated by Medical Officer (1938) ..	1,048,000
Pre-war population, estimated by Registrar-General (1938)..	1,041,000

Extracts from Vital Statistics of the year 1941 :

Birth-rate per 1,000 population .. .. .	16·8
Stillbirth-rate per 1,000 total live and still births .. ..	29
Crude Death-rate per 1,000 population .. .. .	13·2

*Maternal Mortality* :—

From sepsis :	Rate per 1,000 live and still births	0·79
From other causes :	Rate per 1,000 live and still births	1·70
Total Maternal Mortality .. .. .		2·49

*Infant Mortality* :—

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

Legitimate .. .. .		69
Illegitimate .. .. .		75
Legitimate and Illegitimate .. .. .		69

### POPULATION AND MORTALITY STATISTICS

#### Population

As last year, no estimate of the City's war-time population is being published. It can, however, be said that after consultation with the Ministry of Labour and the Ministry of Food, as well as with the more usual sources of information, an estimate of population has been made on which the various rates in the report are based.

**Births** (see page 15).

## Deaths

The death-rate for 1941 was 13·2. The average for the ten years prior to 1941 was 11·5, while that for 1940 was 14·3. These death-rates have, in some degree, been swollen by air raid deaths, but there have been other factors, including in particular a heavy incidence of fatal respiratory illness in relation to severe spells of winter weather in both 1940 and 1941.

The changes in the death-rate in England and Wales and in Birmingham during the past forty-one years can be seen from the figures below, although the figures for 1940 and 1941 obviously cannot fairly be compared with others.

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

			<i>Birmingham.</i>	<i>England and Wales.</i>
1901-1905	..	..	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	12·1
1926-1930	..	..	11·6	12·1
1931-1935	..	..	11·2	12·0
1936	..	..	11·3	12·1
1937	..	..	11·7	12·4
1938	..	..	10·9	11·6
1939	..	..	11·4	12·1
1940	..	..	14·3	14·3
1941	..	..	13·2	12·9

The death-rate in Birmingham and in England and Wales from the more prominent causes of death over a series of years is shown in the table below :

## Cancer

		<i>England</i>		<i>England</i>			
		<i>Birmingham. and Wales.</i>		<i>Birmingham. and Wales.</i>			
1932	..	1·45	1·51	1937	..	1·62	1·63
1933	..	1·43	1·53	1938	..	1·59	1·66
1934	..	1·43	1·56	1939	..	1·55	—
1935	..	1·52	1·59	1940	..	1·61	—
1936	..	1·57	1·62	1941	..	1·70	—

There was no notable variation as to site of disease from the usual distribution of the cases of cancer.

## Diseases of the Heart and Blood Vessels

The death-rates during the past ten years have been as follows :

	<i>England</i>		<i>England</i>	
	<i>Birmingham.</i>	<i>and Wales.</i>	<i>Birmingham.</i>	<i>and Wales.</i>
1932 ..	2.73	3.18	1937 ..	3.40 3.83
1933 ..	2.94	3.30	1938 ..	3.45 3.79
1934 ..	3.04	3.33	1939 ..	3.65 —
1935 ..	3.14	3.46	1940 ..	3.31 —
1936 ..	3.43	3.78	1941 ..	3.10 —

The reduction this year, as in 1940, is more apparent than real, for it is related essentially to a change in the Registrar-General's system of coding deaths.

## Bronchitis, Pneumonia and other Respiratory Diseases

The mortality in 1941 and in recent years has been as follows :

	<i>England</i>		<i>England</i>	
	<i>Birmingham.</i>	<i>and Wales.</i>	<i>Birmingham.</i>	<i>and Wales.</i>
1932 ..	1.47	1.36	1937 ..	1.40 1.27
1933 ..	1.32	1.39	1938 ..	1.18 1.05
1934 ..	1.26	1.24	1939 ..	1.16 —
1935 ..	1.09	1.16	1940 ..	2.21 —
1936 ..	1.22	1.23	1941 ..	1.94 —



## SECTION B

### GENERAL PROVISION OF HEALTH SERVICES

#### 1. General Services

##### (a) Laboratory Facilities

##### I—City Bacteriological Laboratory

The work done in the City Bacteriological Laboratory is set out in detail below :

(a) GENERAL LABORATORY	<i>No. of Specimens.</i>
Diphtheria swabs :	
(a) For practitioners .. .. .	4,286
(b) For fever hospitals .. .. .	4,083
(c) For virulence test .. .. .	1,186
Swabs for staphylococci .. .. .	1,087
Swabs for streptococci .. .. .	393
Fæces .. .. .	2,291
Milks .. .. .	582
Milk for tuberculosis .. .. .	2,453
Precipitin tests .. .. .	300
Sputum for tuberculosis .. .. .	1,765
Shell-fish .. .. .	22
Water samples .. .. .	697
Vaccines prepared .. .. .	2
Widal's reaction .. .. .	3,214
Miscellaneous .. .. .	9,032
TOTAL .. .. .	31,393
(b) VENEREAL DISEASES LABORATORY	
Blood for Wassermann reaction .. .. .	25,071
Cerebro-spinal fluid :	
(a) For Wassermann reaction .. .. .	779
(b) For cell count .. .. .	160
Serum for spirochætes .. .. .	11
Films for gonorrhœa .. .. .	13,003
Urine examinations :	
(a) Microscopic .. .. .	1
(b) Chemical .. .. .	155
Gonococcal fixation tests .. .. .	3,245
Vaccines prepared .. .. .	392
Cultures prepared .. .. .	12,242
Van den Bergh's tests .. .. .	73
Sigma tests .. .. .	410
Kahn tests .. .. .	17,700
TOTAL .. .. .	73,242

## II—City Analytical Laboratory

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

### *Samples Analysed :*

Food and drug samples .. .. .	6,137
Soot gauge samples .. .. .	24
Fertilisers and feeding stuffs .. .. .	22
Miscellaneous samples .. .. .	766
<b>TOTAL .. .. .</b>	<b>6,949</b>

### *Samples Adulterated, etc. :*

Samples adulterated .. .. .	347
False labels .. .. .	32
Number of vendors of incorrect samples ..	201
Number of prosecutions.. .. .	10
Number of fines .. .. .	10
Amount of fines and costs .. .. .	£154/15/6
Number of cautions .. .. .	190

Details of this work are given in the Report of the City Analyst, printed separately.

## III—Hospital Laboratories

Laboratories are provided at :

Dudley Road Hospital : General and Biochemical.

Selly Oak Hospital : General and Biochemical.

Little Bromwich Hospital : Bacteriological, Infectious Diseases.

Yardley Green Road Sanatorium : Bacteriological, etc., Tuberculosis.

Carnegie Institute : General and Biochemical.

### (b) Ambulance Services

The Public Health Committee have four ambulances for acute infectious diseases (Little Bromwich Hospital) and two for tuberculosis. The ambulance services for the general hospitals are supplied through the Birmingham Hospitals Contributory Association in conjunction with the St. John Ambulance Brigade.

The Watch Committee have eight police ambulances for accidents and other casualties.

There are also ambulances at certain of the large voluntary hospitals and at certain works.

### (c) Nursing in the Home

Arrangements have been in force, over a period of years, for the home nursing of a number of conditions by the district nurses of the Birmingham District Nursing Association, and 709 cases were thus nursed during 1941. This figure includes 557 cases of pneumonia and 102 of puerperal pyrexia, and 159 children under five years old are included in the total of 709 cases.

Apart from hospital treatment, cases of ophthalmia neonatorum and of other forms of ophthalmia or eye injury capable of leading to blindness are visited in their homes, as far as necessary, by nurses from the Eye Hospital, an annual grant being paid to the hospital in respect of this service.

#### *Removal of Aged and Infirm*

During 1941 forty cases were investigated with a view to possible removal to an institution under either Section 38 of the Birmingham Corporation (General Powers) Act, 1929, or Section 48 of the 1935 Act.

Nine of the cases were voluntarily admitted to institutions or otherwise relieved and twenty-nine failed to fulfil the requirements of either section. In two cases it was found necessary to obtain a Magistrate's Order under Section 38 for removal to an institution.

#### (d) Treatment Centres and Clinics

*Anti-Tuberculosis Centre.* (See page 77).

*Maternity and Child Welfare Centres.* (See page 20.)

*Public Dispensaries (Voluntary)*

Dispensaries for the treatment of the sick poor are provided by five different voluntary societies in the City, chief among which is the Birmingham General Dispensary. This latter with different branches treated some 24,000 patients during the year, while the others provided treatment in a lesser proportion.

#### (e) Hospitals

### PUBLIC GENERAL HOSPITALS

#### General Statistics

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

#### (a) IN-PATIENTS

	<i>Acute Sick.</i>		<i>Chronic Sick.</i>
	<i>Dudley Road Hospital.</i>	<i>Selly Oak Hospital.</i>	<i>Selly Oak Infirmary.</i>
Total number of admissions (including infants born in hospital) ..	11,994	9,545	2,070
Number of women confined in hospital	938	743	—
Number of live births .. .. .	890	720	—
Number of stillbirths .. .. .	71	39	—
Number of deaths among the newly-born (under four weeks, born in hospital) .. .. .	71	35	—
Number of maternal deaths .. ..	13	3	—
Total number of deaths .. .. .	1,125	542	935
Total number of discharges (including infants born in hospital) ..	10,794	8,932	1,267

The situation of Dudley Road Hospital, and the general type of patient received, accounts for the higher rate of stillbirths and of deaths in infants under four weeks of age, as well as of general deaths, compared with Selly Oak Hospital.

(b) OUT-PATIENTS

	<i>Acute Sick.</i>		<i>Chronic Sick.</i>
	<i>Dudley Road Hospital.</i>	<i>Selly Oak Hospital.</i>	<i>Selly Oak Infirmary.</i>
Number of persons seen in out-patient department .. .. .	18,788	14,859	<i>Run in conjunction with</i>
Total number of attendances ..	101,914	75,716	
Number of women seen at ante-natal clinic .. .. .	1,116	865	<i>Selly Oak Hospital.</i>
Total attendances at ante-natal clinic .. .. .	2,866	4,622	

**Dudley Road Hospital**

This is a municipal general hospital for the acute sick, and is situated in the north-western portion of the City.

Dr. T. M. ANDERSON, Medical Superintendent of the Hospital, reports as follows :

Our general activities have fortunately been little interfered with during the past year. We have had some difficulty at times in maintaining an efficient medical staff, as junior medical officers have to be replaced at short notice when called up to the Services. We have met this difficulty as far as we could by appointing lady doctors, and we have also a few alien doctors who have so far served us well. We believe that the standard of treatment has been well maintained, and credit is due to all members of the medical and nursing staffs, who, in spite of the extra stress and strain they have had to undergo, have helped to maintain the general efficiency of this hospital.

*Duration of Stay*

Under four weeks.....	10,400
Four weeks and under thirteen weeks .....	1,315
Thirteen weeks or more .....	204
Average number of beds occupied .....	570
Highest number on 12th December, 1941 ....	729
Lowest number on 6th April, 1941.....	518

*Operations*

Number of major operations .....	4,075
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### *Casualty Clearing Station*

During the year a considerable number of air raid casualties have been treated.

### *Nursing Staff*

Recruitment of nurses is quite good, the average being fourteen new probationers monthly.

A new scheme has commenced to meet the shortage of domestic help. Girls leaving school at about fifteen years or so are sent by the Education Committee, and they work voluntarily for about three hours on several evenings in the week. They do domestic work on the wards, washing up, etc., and are known as Junior Hospital Service Corps.

### *Stretcher Bearers*

We have recently had some help from the Youth Service Corps who provide volunteer stretcher bearers at night for our Casualty Clearing Station. In return for these services we arrange to give the lads first aid lectures, etc., in the hospital. This should be of mutual benefit. The Rev. H. Arrowsmith is in charge of the stretcher bearer squads, and has already devoted considerable time and care to this important work.

## **Selly Oak Hospital**

This is a municipal general hospital for the acute sick, and is situated on the border of Bournville, in the southern sector of the City.

Mr. H. CARSON, Acting Medical Superintendent, reports as follows :

During the year the hospital has worked to full capacity, and there has been steady pressure on the bed accommodation, reduced owing to war conditions, resulting at times in considerable overcrowding. The statistics for the year show an increase of over 750 admissions on the preceding year.

The facilities for dealing with out-patients are very inadequate, but it is hoped that temporary arrangements may be made to improve the present conditions, pending the provision of a new out-patient block. Over 1,300 more out-patients have been dealt with in the past year, as compared with 1940, resulting in greater strain on the staff and the accommodation of the department.

### *Duration of Stay*

Under four weeks.....	8,560
Four weeks and under thirteen weeks .....	1,078
Thirteen weeks or more .....	87
Average number of beds occupied.....	389

### *Operations*

Number of major operations .....	4,033
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## Selly Oak Infirmary

This institution adjoins Selly Oak Hospital and is for the accommodation of the chronic sick of both sexes of all ages.

Mr. H. CARSON, Acting Medical Superintendent, reports as follows :

There has been steady pressure on the bed accommodation throughout the year. The following figures give an indication of the work done :

Total admissions .....	2,084
Number of discharges .....	1,275
Number of deaths .....	939

### *Duration of Stay*

Under four weeks .....	1,185
Four weeks and under thirteen weeks .....	625
Thirteen weeks or more .....	404
Average number of beds occupied .....	644

# REPORT ON MATERNITY AND CHILD WELFARE

By DR. ETHEL CASSIE, O.B.E.,

*Senior Assistant Medical Officer of Health for Maternity and Child Welfare*

## CHIEF STATISTICS, 1941

Birth-rate, 16·8 per 1,000.

Illegitimate Birth-rate, 4·8 per cent. of total live births.

Infant Mortality Rate, 69 per 1,000 live births.

Stillbirths, 29 per 1,000 live and still births.

Neo-natal Mortality, 29·1 per 1,000 births. (Infant deaths in the first four weeks of life.)

Maternal Mortality in Childbirth, 2·49 per 1,000 live and still births.

Excluding deaths from abortions, 1·95 per 1,000 total births.

## GENERAL COMMENTS

### Births

There was a slight fall in the birth-rate from 16·9 in 1940 to 16·8 in 1941. In the illegitimate birth-rate the movement was in the opposite direction, with an increase from 3·7 per cent. of the total in 1940 to 4·8 in 1941, which is the highest figure since 1918.

### Infant and Child Mortality

The *infant mortality* has fallen from 70 in 1940 to 69 per 1,000 births in 1941.

The *neo-natal death-rate* (29·1 per 1,000 live births) is slightly higher than the rate for 1940 (28·8).

The *stillbirth* rate has dropped from 33 per 1,000 of the live and still births in 1940 to 29 per 1,000 in 1941.

The *death-rate among illegitimate infants* is higher (75 per 1,000 illegitimate live births) than in the previous year (69).

### Maternal Mortality in Childbirth

In Birmingham the maternal mortality for the year shows a slight increase as compared with 1940. Since 1940 the maternal mortality figure for England and Wales has excluded deaths following abortions.

The rates per 1,000 total births, excluding deaths following abortions, are set out below :

	<i>England and Wales.</i>	<i>Bir- mingham.</i>		<i>England and Wales.</i>	<i>Bir- mingham.</i>
1940	2·16	1·74	1941	2·23	1·95

## Puerperal Sepsis and Puerperal Pyrexia

Each case notified has been investigated in detail and any necessary action taken.

### Births

During 1941 the live births were equal to a birth-rate of 16·8, against one of 16·9 in 1940.

### Illegitimate Births

During 1941 the illegitimate births were in the proportion of 48·2 per 1,000 of the total live births, as against 36·8 for 1940.

The figures for recent years were as follows :

<i>Illegitimate Births</i> <i>per 1,000 live births.</i>			<i>Illegitimate Births</i> <i>per 1,000 live births.</i>		
1928	..	33·6	1935	..	33·3
1929	..	36·6	1936	..	33·7
1930	..	35·8	1937	..	37·0
1931	..	33·8	1938	..	40·0
1932	..	32·9	1939	..	36·1
1933	..	36·8	1940	..	36·8
1934	..	36·6	1941	..	48·2

### Infant Mortality

The deaths of infants under one year of age were equal to an infant mortality rate of 69 per 1,000 births.

The infant mortality rates for a number of years are shown in the table below :

INFANT MORTALITY RATE							
	<i>Bir-</i>	<i>England</i>		<i>Bir-</i>	<i>England</i>		
	<i>mingham.</i>	<i>and Wales.</i>		<i>mingham.</i>	<i>and Wales.</i>		
1901-05	..	157	138	1935	..	64	57
1906-10	..	131	117	1936	..	62	59
1911-15	..	126	110	1937	..	60	58
1916-20	..	94	90	1938	..	61	53
1921-25	..	80	76	1939	..	60	50
1926-30	..	70	68	1940	..	70	55
1931-35	..	67	62	1941	..	69	59

The rise in the infant mortality rate in 1940 and 1941, when compared with 1939, was associated with a large increase in deaths from bronchitis and pneumonia.

### Infant Mortality and Illegitimacy

The following figures show the relative mortality among legitimate and illegitimate infants for the past year :

	<i>Infant Mortality</i> <i>per 1,000.</i>
Legitimate.....	69
Illegitimate .....	75



The infant mortality rates during recent years were as follows :

	<i>Infant Mortality Rates per 1,000 Births.</i>	
	<i>Legitimate.</i>	<i>Illegitimate.</i>
1921-25 (average) .....	78	149
1926-30    " .....	68	128
1931-35    " .....	66	113
1936-40    " .....	61	88
1941 .....	69	75

### Neo-natal Mortality

The following table shows that over a sequence of years there has been a decline in the mortality rate amongst children under four weeks of age, though the rates for 1940 and 1941 rose somewhat above those for 1938 and 1939.

	<i>Rate per 1,000 Live Births.</i>	
	<i>Birmingham.</i>	<i>England and Wales.</i>
1912-15 (average) .. ..	40.6	38
1916-20    " .. ..	36.3	37
1921-25    " .. ..	33.5	33
1926-30    " .. ..	31.0	33
1931-35    " .. ..	32.3	31
1936 .. ..	29.8	30
1937 .. ..	31.0	30
1938 .. ..	26.6	28
1939 .. ..	26.3	—
1940 .. ..	28.8	—
1941 .. ..	29.1	—

### Stillbirths

The net number of stillbirths for the year represented a rate of 29 per 1,000 of the live and still births, which is the lowest rate recorded in the City since 1927.

The following table shows the proportion of stillbirths over a period of years :

	<i>Proportion</i>	
	<i>per 1,000 Total Births.</i>	
1912-15 (average) .. ..	..	32
1916-20    " .. ..	..	35
1921-25    " .. ..	..	33
1926-30    " .. ..	..	35
1931-35    " .. ..	..	37
1936 .. ..	..	36
1937 .. ..	..	35
1938 .. ..	..	36
1939 .. ..	..	36
1940 .. ..	..	33
1941 .. ..	..	29

## Stillbirths and Neo-natal Deaths

The stillbirth rate is lower this year (29 per 1,000 compared with 33 in 1940 and 36 in 1939).

The causes of stillbirths show very little alteration from previous years, with two exceptions. Toxæmia of pregnancy, although still the greatest ante-natal cause, has been reduced from 22 per cent. to 18 per cent. of all causes, and breech presentation, still the greatest intra-natal cause, has been reduced from 15 per cent. to 10 per cent. of all causes.

As regards neo-natal deaths, slightly less than one-third of the deaths occurred within twenty-four hours of birth, slightly more than one-third between two and six days, and one-third at seven days or over. Ante-natal causes (toxæmia accounting for half of these) remain the same (11 per cent.); while intra-natal causes have risen from 13 per cent. to 19 per cent.; and post-natal causes fallen from 22 per cent. to 18 per cent. Deaths due to foetal abnormality and prematurity remain constant—i.e., 16 per cent. and 36 per cent. respectively.

## Maternal Mortality in Childbirth

The deaths of women classed to pregnancy and child-bearing in Birmingham during 1941 gave a maternal mortality rate per 1,000 live births of 2·57. If the deaths following abortions are excluded, the rate falls to 2·00.

The maternal mortality in previous years is shown in the table below :

		<i>Rate per 1,000 LIVE Births.</i>	
		<i>Birmingham. England and Wales.</i>	
Average 1911-15	.. ..	3·51	4·03
Average 1916-20	.. ..	3·06	4·10
Average 1921-25	.. ..	3·49	3·91
Average 1926-30	.. ..	3·79	4·28
Average 1931-35	.. ..	3·72	4·31
1936	.. ..	3·67	3·81
1937	.. ..	3·07	3·23
1938	.. ..	2·81	3·08
1939	.. ..	2·58	—
1940	.. ..	2·21	—
1941	.. ..	2·57	—

The rates calculated on live and still births, but excluding deaths from abortion, for 1941 were :

Birmingham	.. ..	1·95
England and Wales	.. ..	2·23

## 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 so obtained, direct from doctors, midwives and hospitals, makes it possible to classify the deaths more accurately than from the consideration of the death certificates alone, but only a very curtailed summary can here be given.

The maternal deaths in 1941 were such that the proportion :

(a) *Due to Pregnancy and Childbirth :*

(i) Not associated with a notifiable birth was ..	25.5 per cent.
(ii) Associated with a notifiable birth was.. ..	50.0 ..

(b) <i>Due to Associated Conditions was</i> .. .. .	75.5 per cent.
	24.5 per cent.

### **Puerperal Sepsis and Puerperal Pyrexia**

The following table shows the number of cases of puerperal pyrexia during 1941 and the preceding four years :

The out-of-City cases are those not normally resident in Birmingham, but coming into the City for confinement.

	1937.	1938.	1939.	1940.	1941.
Total puerperal pyrexia..	315	408	331	292	290
Out-of-City cases ..	37	56	31	17	20
Birmingham cases ..	278	352	300	275	270

The 270 Birmingham cases have been investigated with a view to discovering the cause of the pyrexia. The pyrexia was due to infection of the genital tract in 142 cases, and due to extra-genital causes in 102 cases. In 21 cases the cause was unknown.

The ante-natal care appears to have been sufficient in 179 cases and insufficient in 15 cases, while in the remainder it was not known.

In 24 cases pyrexia followed an abortion.

There have been 14 deaths from sepsis, 4 following childbirth and 10 following abortion.

### **Ophthalmia Neonatorum**

There were 928 cases of discharging eyes notified to this Department during 1941. The great majority of these were not cases of ophthalmia neonatorum due to gonococci but were reactions following prophylactic treatment or mild catarrhs.

Fourteen cases were admitted to the Eye Hospital. There was no impairment of vision among cases notified during 1941.

One case notified in July, 1940, is now found to have some impairment of vision. This was not known until recently, owing to the child leaving Birmingham in October 1940, while still under treatment.

### **Pemphigus Neonatorum**

Nine cases of pemphigus neonatorum were reported during 1941. Four were removed to hospital, three were attended by district nurses, and two by their own mothers. There were no deaths.

## MATERNITY AND CHILD WELFARE SERVICE

### Health Visitors' Training Course

The nineteenth course of training for the Health Visitors' Certificate was held from September 1st, 1941, until April 1st, 1942, with a total of thirty-four students in attendance, of whom twenty-three were assisted pupils, training within the Public Health Department scheme, and eleven were independent students.

Thirty-four candidates sat for the examination in April, 1942, and of these twenty-seven, or 79 per cent., were successful.

### Health Visiting in the Home

The Health Visitors carry out systematic home visiting to children under the age of five, ante-natal visits and visits in certain infectious diseases, including ophthalmia neonatorum.

Visits to children are made as soon as possible after the fourteenth day, then monthly up to one year of age, quarterly from 1-2 years, and half-yearly from 2-5 years, although in this latter group it is often necessary to pay more frequent visits, to ensure the child receiving treatment which may have been advised at the centre, or to follow up cases where the home conditions are very unsatisfactory.

The Health Visitors also paid visits to Rest Centres and Hostels after air raids during the earlier part of the year.

Total visits to children under 5 years .. ..	261,696
Total visits to expectant mothers .. ..	18,686
Other visits .. .. .	30,392
	<hr/>
ALL VISITS .. .. .	310,774
	<hr/>

### CHILDREN VISITED DURING 1941

Number of individual children visited .. ..	65,259
Number of individual children visited who attended centres .. .. .	35,466
Percentage of children visited attending centres	54%

### VISITED CHILDREN GROUPED ACCORDING TO AGE

<i>Age.</i>	<i>Year of Birth.</i>	<i>Per cent. Visited</i>	<i>Per cent. Attended Centre during 1941.</i>
Under 12 months.. ..	1941.	89	78
1-2 years .. .. .	1940	74	75
2-3 years .. .. .	1939	75	42
3-4 years .. .. .	1938	75	32
4-5 years .. .. .	1937	75	27

## Child Welfare Centres

Number of Centres provided and maintained by the City Council ..	32
Total number of attendances at infant and children's consultations at all Centres during the year :	
(1) By children under 1 year of age .. .. .	137,768
(2) By children between 1 and 5 years .. .. .	42,304
Total number of children who attended post-natal and ordinary consultations for the first time during the year :	
(1) By children under 1 year of age .. .. .	14,112
(2) By children between 1 and 5 years .. .. .	2,919
Total number of children who were in attendance at the Centres throughout the year :	
(1) Children under 1 year of age .. .. .	11,196
(2) Children between 1 and 5 years .. .. .	24,250
Number of fresh children attending special medical inspection clinics for children between 2 and 5 years (with 16,625 attendances) .. ..	5,090

### *Infants and Children*

Primary visits .. .. .	14,478
Re-visits (infants and children) .. .. .	247,218
Total visits and re-visits .. .. .	261,696

### *Mothers*

Primary visits .. .. .	4,729
Re-visits .. .. .	13,957
Total visits and re-visits .. .. .	18,686

## ATTENDANCES AT CHILD WELFARE CENTRES DURING 1941

### *Children's Consultations :*

Number held (excluding Post-natal Clinics) .. .. .	3,387
Fresh children attending (including those at Post-natal Clinics) ..	*17,031
Total attendances .. .. .	185,530
Number of these seen by doctor .. .. .	87,144

### *Special Medical Inspections (1-5 years) :*

Number held .. .. .	1,105
Total attendances .. .. .	16,625

### *Mothers' Consultations :*

Number held .. .. .	3,063
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### *Ante-Natal :*

Fresh mothers attending .. .. .	12,186
Total attendances .. .. .	59,992

### *Post-Natal :*

Number held .. .. .	1,278
Number of individual mothers attending .. .. .	2,388
Total attendances of mothers .. .. .	2,554
Total attendances of infants (see above) .. .. .	*29,667

### *Attendances at :*

Sewing classes .. .. .	11,656
Cookery classes .. .. .	370
Health talks .. .. .	39,554

MATERNITY AND CHILD WELFARE CENTRES, 1941

CENTRES.	INFANTS AND CHILDREN		CHILDREN'S CONSULTATIONS					SPECIAL MEDICAL INSPECTIONS			MOTHERS' CONSULTATIONS (Ante-Natal)					POST-NATAL CLINICS						
	Primary Visits.	Re-visits.	Total Visits.	Mothers (Ante-natal Visits).	Number Held.	Fresh Children Attending.	Total Attendances.	Average per Consultation.	Number seen by Doctor.	Number Held.	Total Attendances.	Average per Consultation.	Number Held.	Fresh Mothers Attending.	Total Attendances.	Average per Consultation.	Number of Mothers Examined.	Average per Consultation.	Number of Infants Attending.	Average per Consultation.	Number of Infants seen by Doctor.	Average per Consultation.
ACOCK'S GREEN	508	1,320	11,828	635	100	368	5,003	56	2,217	51	904	18	98	438	2,222	23	151	3	1,294	25	573	11
BROMFORD	411	5,517	6,928	521	152	450	5,556	37	2,896	—	—	—	89	301	1,784	20	—	2	1,319	27	652	13
CARNEGIE INSTITUTE	605	9,591	10,197	834	149	561	7,698	52	3,444	50	776	16	166	634	2,888	17	118	2	1,280	26	416	19
ERDINGTON	565	6,953	7,518	572	150	400	7,572	50	2,762	47	731	15	92	447	2,096	23	75	2	—	—	—	—
FLOODGATE STREET	133	4,057	4,200	407	48	191	1,679	35	1,043	—	—	—	51	148	791	15	84	2	934	19	745	15
GREET	494	9,221	9,715	982	84	347	4,676	56	2,020	2	36	18	96	375	1,777	19	49	2	1,238	25	742	15
HANDSWORTH	409	4,731	5,140	351	100	231	4,704	47	1,919	47	601	12	99	296	1,779	18	49	2	—	—	—	—
HARBORNE	115	1,593	1,708	58	47	148	2,036	43	911	—	—	—	24	87	378	16	75	2	—	—	—	—
HAY MILLS	402	7,479	7,881	469	143	565	7,975	56	3,488	41	901	22	125	461	2,502	26	131	3	1,379	28	819	16
HOPE STREET	484	9,194	9,678	671	98	280	5,441	35	1,642	—	—	—	98	419	2,142	17	51	3	1,099	22	632	12
HORRELL ROAD	490	5,441	5,931	287	100	278	5,382	54	2,250	51	627	12	68	256	1,301	19	61	1	1,194	24	691	14
IRVING STREET	298	4,453	4,751	341	97	315	3,418	35	2,212	9	132	14	147	120	636	14	—	—	—	—	—	—
KETTLEHOUSE	553	8,050	8,603	481	147	339	5,587	38	2,836	46	684	14	147	581	3,094	21	127	3	1,349	28	960	20
KING'S HEATH	394	5,056	5,450	497	81	274	3,646	45	1,465	51	622	12	63	253	1,186	19	57	1	1,115	22	733	15
KINGSTANDING	470	9,849	10,319	644	99	289	4,659	47	1,838	49	745	15	146	612	2,236	23	112	2	1,053	22	689	13
LANCASTER STREET	503	12,188	12,691	1,136	98	466	4,518	46	1,815	17	264	15	99	488	2,390	16	49	2	997	20	725	15
LANSDOWNE STREET	507	9,908	10,415	877	99	254	5,267	57	2,966	51	843	16	97	360	1,866	19	44	2	1,187	27	540	12
LEA HALL	586	10,384	10,970	646	80	263	3,335	42	1,642	47	829	17	97	454	2,070	21	50	1	1,461	28	702	14
MONUMENT ROAD	726	10,057	10,783	579	149	361	6,898	46	2,828	53	626	11	143	540	2,471	17	117	2	1,354	28	702	14
NORTHFIELD	639	9,034	9,673	498	134	332	6,073	45	2,757	50	520	10	99	383	2,017	20	50	2	962	19	584	12
SELLY OAK	265	3,795	4,060	240	93	320	4,123	44	1,768	47	748	16	50	234	1,200	24	6	2	198	49	49	12
STICHFORD	490	7,226	7,716	580	149	415	6,474	43	3,112	13	206	15	99	393	1,915	19	50	3	933	19	602	12
STIRCHLEY	588	8,479	9,067	593	100	253	3,697	37	1,867	51	904	18	61	331	1,470	24	48	1	949	20	743	15
STRATFORD ROAD	358	7,328	7,686	734	97	400	3,974	41	1,861	—	—	—	99	370	1,755	18	—	—	—	—	—	—
SUTTON STREET	538	11,422	11,960	985	99	484	6,298	63	2,697	48	865	18	149	712	3,049	20	50	2	858	17	670	13
TENNAL ROAD	313	5,693	5,916	238	103	201	2,852	28	1,631	50	591	11	48	177	907	19	43	1	1,244	26	808	17
TRINITY HILL	670	8,598	9,268	467	150	421	7,800	52	2,981	50	788	15	97	389	2,123	22	49	2	1,274	26	756	15
TOWER ROAD	471	6,611	7,062	663	99	296	5,105	51	2,106	47	696	14	106	437	2,220	22	129	3	1,480	30	1,000	20
WASHWOOD HEATH	478	9,036	9,514	697	100	349	3,950	39	1,968	—	—	—	151	432	2,490	17	49	1	1,005	20	651	13
WEOLLEY CASTLE	280	5,545	5,825	391	49	165	2,336	47	1,039	49	734	15	55	242	1,273	23	112	2	720	15	639	13
WRIGHT STREET	509	9,187	9,696	984	95	474	3,805	40	2,107	39	400	10	142	493	2,436	17	77	2	497	10	405	8
YARDLEY WOOD	525	9,002	9,527	618	98	398	5,484	55	1,998	49	852	17	62	323	1,528	25	77	2	1,294	27	671	14
TOTALS	14,778	246,918	261,696	18,686	3,387	10,888	155,863	46	65,216	1,105	16,625	15	3,063	12,186	59,992	20	2,440	2	29,667	23	17,928	14

The work of the Child Welfare Centres has proceeded on the established lines.

The number of attendances at children's clinics has fallen somewhat, due, no doubt, to the increase in the number of mothers who are engaged on war-time work. The actual fall in attendances at all clinics for children under five years has been 29,083, while the number of sessions has decreased by 734.

The Centres have been used for the distribution of vitamin supplies and national dried milk, also for the issue of the quarterly application forms for milk under the National Scheme.

### **Medical Inspection of Children from 2 to 5 Years**

Special sessions are devoted to the medical inspection of children from two to five years at child welfare centres. The number of such sessions during the year was 1,105, and the total attendances were 16,625, giving an average attendance of fifteen.

The total number of individual children attending during the year was 7,851. Children are asked to return every quarter for this special examination, but they also attend the ordinary children's consultations at the child welfare centres and are regularly visited at home.

The "defects" noted at the special medical examinations have been classified as shown in the table. Of the 7,851 children examined, 5,532 were suffering from one or more "defects"—i.e., 70 per cent., a high proportion which emphasizes the need for such special examinations. No less than 23 per cent. of the children examined suffered from acute illness during the year. The large number of children having insufficient rest is indicated.

## TODDLERS' MEDICAL INSPECTION, 1941

Number of children who attended Medical Inspection	
Clinics during 1941 .. .. .	7,851
Total number of attendances .. .. .	16,625
Fresh children attending .. .. .	5,090
Number of children noted as suffering from one or more of the defects or diseases in the attached list. (N.B.— <i>Not</i> number of <i>defects</i> ) .. .. .	
	5,532
Number of children suffering from environmental conditions .. .. .	
	2,984
Number of children noted as having had an acute illness during 1941—e.g., pneumonia, infectious diseases, etc. .. .. .	
	1,808
Eye conditions (defect or disease) .. .. .	427
Skin conditions .. .. .	374
Ear, nose and throat conditions .. .. .	2,490
Defective teeth .. .. .	1,775
Gland conditions .. .. .	922
Heart conditions .. .. .	104
Anæmia .. .. .	125
Lung conditions .. .. .	149
Active rickets .. .. .	176
Deformities .. .. .	1,554
Poor mentality .. .. .	120
Speech defects .. .. .	155
Unsuitable or inadequate clothing .. .. .	420
<i>Rest :</i>	
Bed-time later than 7-0 p.m. .. .. .	3,540
No day-time rest .. .. .	4,562

### Ante-natal Clinics at Child Welfare Centres

The average number of ante-natal clinics held weekly is 61, and the average attendance is 19 per clinic. The number of women attending has increased by 1,116 and the total attendances by 2,483.

Ante-natal clinics are held at Dudley Road and Selly Oak Hospitals, at the Maternity Hospital, and at the City Maternity Homes, to all of which cases can be sent for consultation.

### Post-natal Clinics

Mothers are asked to bring their babies to these clinics until they are three months old, and each mother is advised to have an examination herself 6-8 weeks after the confinement.

The number of mothers examined at post-natal clinics in 1941 was 2,170. This figure is not as inadequate as it appears, as a number of cases confined in institutions or attended by private doctors attend the centres for ante-natal care, but are examined post-natally at the institution or by the private doctor.



The importance of the examination is shown by the fact that 71 per cent. of cases examined show abnormality, as follows :

Number of cases showing no abnormality .. ..	616
Number of cases showing abnormality .. ..	1,554

*Abnormal Conditions Found in Mothers :*

Breasts—mastitis .. .. .	45
Genital tract .. .. .	1,411
Urinary tract .. .. .	127
White leg .. .. .	9
General conditions .. .. .	1,524

*Note.*—More than one abnormality may be found in the same mother.

Total attendances of infants .. .. .	29,667
Average attendance of infants per clinic .. ..	23
Number of infants attending these clinics .. ..	6,143

A Consultation Clinic for post-natal cases was started in September, 1940, the consultant attending every first and third week at the Heathfield Road Maternity Home, and every second and fourth week at the Wake Green Road Maternity Home. Medical officers can send cases from child welfare centres for advice and treatment.

Number of clinics held .. .. .	26
Number of attendances .. .. .	350

### Ultra-violet Light Clinics at Child Welfare Centres

These clinics were held at seventeen centres. In addition to the usual clinical conditions dealt with, treatment was also given as a prophylactic measure to prevent the harmful results of blacked-out homes and other detrimental factors. Attendances were well maintained and the children responded well to treatment.

#### ATTENDANCES

Number of new cases .. .. .	3,958
Total attendances .. .. .	36,636

### Remedial Exercise Clinics

Remedial Exercise Clinics have been held at nine child welfare centres and at five day nurseries.

Much good work has been done, and attendances have been well maintained. The mother attends these classes with her child, watches the routine, and is encouraged to put the child daily through the same exercises at home.

In addition the remedial gymnasts attend at Canwell Hall for eight sessions weekly. They have also given post-natal exercises to mothers in the Maternity Homes during the puerperium.

The number of children treated at Maternity and Child Welfare Centres during the year was :

Individual children attending	..	..	..	653
Total attendances	..	..	..	4,849
Number of sessions held	..	..	..	327
Average per session	..	..	..	15

### Dental Treatment

	<i>Carnegie.</i>	<i>Stratford Road.</i>	<i>Lancaster Street.</i>	<i>Selly Oak.</i>	<i>Total.</i>
Number of clinics held ..	246	199	121	47	613
Total attendances (mothers) ..	3,683	2,357	1,633	434	8,107
Total attendances (children) ..	874	667	472	396	2,409
Dentures supplied ..	503	282	204	—	989
Number of inspection clinics held ..	..	..	..	32	
Number inspected ..	..	..	..	1,199	

### Treatment of Ear, Nose, Throat and Eye Conditions

Cases referred from Child Welfare Centres and examined during 1941 at the Children's Hospital for the treatment of the above conditions were as follows :

Eye, ear and throat cases	..	..	..	..	342
Tonsils and adenoids (operation required)	..	..	..	..	386
Tonsils and adenoids (examination only)	..	..	..	..	134
					—
					862
					—

### The Provision of Food for Necessitous Mothers and Children *Municipal Kitchen and Feeding Centres*

The standard of food has been well maintained in meals supplied to centres, despite rationing conditions. The kitchen has cooked for nine Child Welfare Centres, and in addition for the War-time Nurseries.

Cost per meal, including wages and overhead charges, 8d.

At Child Welfare Centres the number attending during the year 1941 was :

Individual children	..	..	..	..	..	983
Individual mothers	..	..	..	..	..	625
Total attendances	..	..	..	..	..	70,694

### Carnegie Infant Welfare Institute

During the year the work of the Centre has proceeded normally.

An average attendance of fifty at the infant consultations has been maintained, while the attendance at the ante-natal clinics has greatly increased, necessitating an additional clinic, making four weekly. The women attend very regularly, and there are few defaulters.

During one raid the Institute was hit by incendiary bombs, and some damage was done to the roof, the observation ward, and some of the upstairs rooms, whilst the whole building suffered from the effects of the water used to overcome the fire. The children in the observation ward were all safely evacuated. Thanks to the energetic work of the staff, the day nursery was closed for one day only, and no clinics were cancelled.

The observation ward had to be closed for repairs, and since re-opening has been used as part of the day nursery.

### Carnegie Observation Ward

This ward was only used for a portion of the year as an observation ward until damaged in an air raid.

Number of babies admitted .. .. .	65
Number of babies re-admitted .. .. .	1
Average length of stay in days .. .. .	12
Cases transferred to other institutions .. .. .	14
Infectious cases .. .. .	2
Deaths .. .. .	3

### Parents' Guidance Clinic, Lancaster Street Child Welfare Centre

During the year 39 sessions were held, the medical psychologist being assisted by a special health visitor.

Forty-one new cases were referred to the clinic during the year.

#### ATTENDANCES

Girls .. .. .	52
Boys .. .. .	36
Mothers .. .. .	48
Fathers .. .. .	3

One hundred and twenty-three home visits were paid during 1941.

### Home Helps

Number of cases attended .. .. .	742
(Number of cases attended in 1940—1,002.)	

During the winter months the Home Helps have been allowed, on account of transport difficulties, and the early closing of shops, to leave their work at 4-30 instead of 6-0 p.m.

Satisfactory reports have been received as to their efficiency and acceptability.

Owing to the resignation of eleven Home Helps, who have been absorbed into factory work, and the certainty of losing more in the near future, together with the extreme unlikelihood of filling their places, the Service is in a very difficult position, and is unavoidably restricted in scope.

### Canwell Hall Babies' Hospital, near Sutton Coldfield. 84 Beds.

This Institution admits chronic ailing children from infancy to five years, referred mainly from the Welfare Centres.

#### *Infectious Disease*

There were 69 cases of infectious disease during the year, including cases developing whilst in hospital.

<i>Number of Admissions.</i>		<i>Number of Discharges.</i>	
0-1 years .. .. .	181	Well.. .. .	112
1-2 years .. .. .	168	Greatly improved .. .. .	150
2-5 years .. .. .	149	Improved .. .. .	146
	—	Unchanged .. .. .	73
	498		481
	—		—
Number of cases in hospital, 1st		Number of cases in hospital at end	
January, 1941 .. .. .	80	of year 1941 .. .. .	71
	—	Number of deaths .. .. .	26
	—		—
TOTAL .. .. .	578	TOTAL .. .. .	578
	—		—

Of the total discharges, 12 were removed by the parents against medical advice.

The cases admitted during 1941 have again been more acute in type, and the average duration of stay shorter. There have been 26 deaths during the year.

The cases admitted included 86 chest conditions ; 76 ear, nose and throat conditions ; 50 cases of gastro-enteritis ; 18 cases of anæmia ; and 87 cases of malnutrition or marasmus. There were only 7 cases of active rickets. Ten children were found to be suffering from tuberculosis ; 5 of these were transferred for sanatorium treatment, while 5 were taken home against advice.

### Residential Nursery, Red House, Overbury, near Tewkesbury. Number of Beds, 48.

*(Evacuated from Lordswood Nursery, Harborne)*

This Institution admits children under the age of 2 years who are in need of care under the Public Assistance Committee regulations.

The Nursery was evacuated from Birmingham shortly after the outbreak of war. During 1941, 57 children have been admitted and 52 discharged.

There was an outbreak of German measles in January, and in February and March about 20 children had influenza. Six of these developed pneumonia, and were seriously ill, but all recovered. Five sick children were transferred to Dudley Road Hospital for various reasons.

Two children have died at Red House during 1941. On the whole the children have done well.

Ten of the nursing staff sat for the Nursery Nurses' Diploma, and four for the advanced examination of the National Society of Day Nurseries, and all passed.

### **War-Time Nurseries**

The position in regard to the provision of war-time nurseries during 1941 was a difficult one owing to the lack of premises convenient for the purpose and rightly situated, and to the difficulty, even where they have been found, of acquiring them. The position was materially eased by the successive circulars of the Ministry of Health, in the first place accepting responsibility for the approved expenditure on war-time nurseries, then defining their equipment, and finally in September, 1941, granting powers to requisition sites and buildings. This meant that schemes would no longer be held up pending the completion of negotiations for the acquisition of land or houses, quite apart from the fact that such negotiations all too frequently broke down where there was no power of compulsion behind them. In December, 1941, a joint circular by the Ministry of Health and Board of Education dealt in detail with the question of war-time nurseries and made it clear that their establishment was a matter of most urgent and vital importance. From the beginning of the war until the end of 1941 a total of 9 war-time nurseries had been opened, 2 being in private houses, 4 occupying in part or as a whole Child Welfare premises, 1 being established in nursery school premises attached to the Birmingham Settlement, 1 at the Salvation Army Home and 1 at Pye Hayes Hall, re-opened as a day nursery.

The accommodation for most of these was between 40 and 60, and the average attendance after an initial lag was consistently high.

It may be added that the number of day nurseries was rapidly increased in 1942, so that by the end of August, 1942, the total opened, or ready to be opened as soon as staff became available, was 57.

### **Children's Home Service**

The Ministry of Labour "Daily Minding" Scheme commenced on June 23rd, 1941, and was replaced by the Children's Home Service on December 1st, 1941. The former scheme from the commencement was found unsatisfactory. The dual control by the Ministry of Labour and the Public Health Department did not make for easy working. The method of claiming payment, with the numerous and complicated forms, was too much trouble for many minders and mothers, and the maximum payment of 6s. less than the usual amount paid for minding here.

The new scheme, directly supervised by the Public Health Department, has met with a much greater response. During the first month (December, 1941) :

233 homes were inspected and registered.

69 of these being taken over from the Ministry of Labour scheme.

342 children could be accommodated in these homes.

138 children were accepted by the members and notification cards sent into the office.

31 homes were found unsuitable for registration.

The service increased rapidly in 1942, and at the present time includes 1,796 registered homes and 1,500 children actually in residence.

Many applications for registration have been received from relatives and friends already minding the children, and wishing to claim the grant. These arrangements are usually very satisfactory, as the children are in the same type of home as their own, and with people known to them, so that difficulties of adjustment to altered conditions do not occur. All registered minders are advised to find a child of a neighbour or friend, if possible.

#### **Residential Nursery, Wassell Grove, near Stourbridge. Number of Beds, 50.**

This Institution admits children under 5 years of age whose mothers are taking part in the national effort.

The Institution was formerly a convalescent home for women and girls, and was adapted and opened as a residential nursery in December, 1940. Since then the hot water supply has been improved and better sanitary and bathing accommodation for both children and staff provided.

During 1941 181 children were admitted and 158 discharged. There was an epidemic of influenza in March affecting most of the children, and 2 died.

Ninety-six children were transferred to hospital (45 to general hospitals and 51 to fever hospitals) during the year.

Five of the nursing staff sat for the examination of the National Society of Day Nurseries, and 3 passed.

#### **Oaklands Residential Nursery, Droitwich. Number of Beds, 52.**

This Institution was formerly a convalescent home for men and boys, and after necessary alterations was opened in April, 1941, as a residential nursery for children under 5 years of age whose mothers are taking part in the national effort.

During 1941 100 children were admitted and 45 discharged.

There was an outbreak of infective jaundice during the autumn. Many of the staff were severely affected.

Sixty-six children were transferred to hospital (55 to general hospitals and 11 to fever hospitals) during the year.

#### **City Maternity Home, Wake Green Road, Moseley. 47 Beds.**

This Institution admits maternity cases, ante-natal cases and premature infants, and is a training school for pupil midwives (first period of training).

During 1941 the institution has worked in conjunction with Lordswood Post-Delivery Home, 947 cases having been transferred on or about the fifth day of the puerperium. Any abnormality arising in these mothers and babies during their stay at the Post-Delivery Home has been included in the report of this maternity home.

During 1941 the number of deliveries in the home was 1,171; of these, 1,052 were booked and 119 unbooked cases.

There was no case of puerperal septicæmia, but 9 cases of pyrexia were notified. There were 4 cases of breast abscess during the year.

Three maternal deaths occurred, and of these 2 were unbooked cases. The causes of death were heart failure in an undelivered woman suffering from valvular disease of the heart; pulmonary embolism eight days after a normal delivery; and heart failure in a case of valvular heart disease after delivery.

The Premature Baby Ward has been full throughout the year. In order to accommodate the number of babies requiring admission a certain number of the older and larger infants were transferred to Lordswood Post-Delivery Home until fit for discharge to their own homes.

In May there was an outbreak of infection in the Premature Baby Ward and 6 infants died. In each case death was due to septicæmia with a terminal broncho-pneumonia. No definite source of infection could be traced, but it was felt that the use of the four single rooms in the block for isolation cases may have played a part. These wards have been used for isolation purposes since the onset of air raids in 1940, when the isolation unit on the top floor of the main block had to be evacuated. Owing to the cessation of the post-certificate refresher courses for midwives the first floor of the Premature Baby Block had been empty since the onset of hostilities, and it was decided to convert this floor into an ante-natal clinic and use the existing clinic for isolation purposes. This change over was completed by August, and has proved a most satisfactory arrangement.

## City Maternity Home, Heathfield Road, Handsworth. 30 Beds.

This Institution admits maternity and ante-natal cases, and is a training school for pupil midwives (second period of training).

During 1941 it has worked in conjunction with Bourne House Annexe (with 10 ante-natal beds and 4 post-delivery beds), and other post-delivery homes, 301 cases having been transferred on or about the fifth day of the puerperium. Any abnormality arising in these mothers and babies during their stay at the Post-Delivery Homes has been included in the report of this maternity home.

Cases were transferred as follows :

Pype Hayes Hall Home .. .. .	164
Lordswood Home .. .. .	82
Bourne House Annexe .. .. .	55

During 1941 there were 778 deliveries in the home ; of these, 713 were booked cases and 65 unbooked cases.

There was no case of puerperal septicæmia, but 17 cases of pyrexia were notified. There were 3 cases of breast abscess during the year.

One maternal death occurred. This was due to pneumonia following repeated anæsthetics for an obstructed labour due to a brow presentation.

The Home suffered on one occasion from enemy action. Several incendiary bombs fell on the maids' bedrooms, but the fires were quickly extinguished and the damage was not extensive.

### Bourne House Annexe

This Home has been used as an annexe to Heathfield Road Maternity Home throughout the year.

Ten beds are used for ante-natal cases, and four for post-delivery cases, patients being transferred by ambulance.

#### ADMISSIONS

Ante-natal patients.. .. .	214
Mothers with babies .. .. .	50
Mothers without babies .. .. .	4

These patients are included in the report of the Heathfield Road Maternity Home.



# The City Maternity Homes

## Maternity Wards

### MOTHERS

	<i>Wake Green Road Home.</i>	<i>Heathfield Road Home.</i>
Number of confinements .. ..	1,171	778
Booked cases .. ..	1,052	713
Unbooked cases .. ..	119	65
Primiparæ .. ..	697	467
Multiparæ .. ..	474	311
Puerperal sepsis .. ..	0	0
Puerperal pyrexia .. ..	9=0.7%	17=2.2%
Maternal deaths .. ..	3=0.2%	1=0.1%
Forceps deliveries .. ..	32=2.7%	18=2.3%

### INFANTS

	<i>Wake Green Road Home.</i>	<i>Heathfield Road Home.</i>
Number of births .. ..	1,189	788
Stillbirths .. ..	32=2.7%	28=3.5%
Deaths in first ten days .. ..	27=2.3%	17=2.1%
Premature births (before 36th week)... ..	56=4.7%	26=3.3%
Ophthalmia neonatorum .. ..	5	4

## Ante-Natal Ward

	<i>Wake Green Road Home</i>	<i>Heathfield Road Home</i>
Admissions .. ..	711	317
Booked cases .. ..	548	242
Unbooked cases .. ..	163	75

## Clinics

### ANTE-NATAL

	<i>Wake Green Road Home (5 sessions weekly)</i>	<i>Heathfield Road Home (4 sessions weekly)</i>
<i>Doctors' Clinics :</i>		
New patients .. ..	1,835	996
Re-visits .. ..	4,945	3,028
Consultation cases .. ..	432	214
<i>Midwives' Clinics :</i>	<i>(1 session weekly)</i>	<i>(1 session weekly)</i>
Attendances .. ..	620	473
	<hr/> 7,832	<hr/> 4,711

### POST-NATAL

	<i>Wake Green Road Home (1 session weekly)</i>	<i>Heathfield Road Home (1 session weekly)</i>
Total attendances .. ..	559	343
Attendance rate .. ..	47.7%	44.1%

### *Post-Natal Consultation Clinic*

This was started in September, 1940. The Consultant attends every first and third week at Heathfield Road Maternity Home, and every second and fourth week at Wake Green Road Maternity Home. Cases are sent from the child welfare centres for advice and treatment.

Number of clinics held .. .. .	26
Number of attendances .. .. .	350

### *Premature Babies' Ward, Wake Green Road.*

Admissions .. .. .	238
Premature babies .. .. .	226
Feeble, but full-term babies .. .. .	12
Survival rate of premature babies for 1941 .. .. .	56%

### **Lordswood Post-Delivery Home**

This Home has been used in conjunction with the City Maternity Homes, patients being transferred by ambulance four or five days after delivery.

One ward has been reserved for the reception of premature babies, these babies being transferred from the City Premature Baby Ward to be cared for until fit for discharge to their homes.

During the year structural alterations were made so that this home might be used as a delivery home in case of emergency.

In 1942 the Home became wholly a maternity (delivery) institution.

#### ADMISSIONS

Mothers with babies .. .. .	1,005
Mothers without babies .. .. .	30
Premature babies .. .. .	16
<b>TOTAL .. .. .</b>	<b>1,051</b>

Any abnormalities arising in either mother or baby while in this institution are included in the report of the maternity home in which the delivery took place.

## Pype Hayes Hall Convalescent Home, Erdington

This Home has functioned partly as a post-delivery home and partly as a convalescent home for mothers and babies during most of the year.

Towards the end of the year, however, the home was converted into a war-time nursery with accommodation for 60 children, 30 of whom can be resident. It opened in this capacity on November 10th, 1941 :

### ADMISSIONS

(1) <i>Convalescent Cases :</i>					
Mothers with babies	..	..	..	..	99
Babies	..	..	..	..	37
Mothers (post-natal)	..	..	..	..	15
Mothers (ante-natal)	..	..	..	..	30
TOTAL					181
(2) <i>Post-delivery Cases :</i>					
* Mothers with babies	..	..	..	..	198
(3) <i>Day Nursery Attendances :</i>					
Resident children	..	..	..	..	29
Daily children	..	..	..	..	24

## Care of the Unmarried Mother

During the year 621 unmarried mothers and 129 married women with illegitimate children came under the care of the Department ; 519 were first cases of illegitimacy. The total number of cases was 750, compared with 527 in 1940 ; an increase of 223 cases during the year.

<i>Dealt with at:—</i>	<i>First Cases.</i>	<i>Multiple Cases.</i>	<i>Married Women.</i>
Hope Lodge .. .. .	71	1	—
The Hawthorns .. .. .	9	3	—
Woodville .. .. .	*29	—	—
Cleveland House .. .. .	3	1	—
The Hostel .. .. .	14	5	—
Birmingham Infirmary .. .. .	2	9	2
Homes out of City .. .. .	5	—	—
Left City before confinement..	9	1	1
Own home, except for confinement .. .. .	300	64	101
Own home entirely .. .. .	77	18	25
	—	—	—
	519	102	129
	—	—	—

\*7 cases " out of city."

Of the 750 cases dealt with, 147 were not Birmingham cases ; 91 were transferred by the Ministry of Labour, and 56 other cases came to Birmingham during the year. One hundred and nine of these were first cases, 24 multiparæ cases, and 14 married women with illegitimate children.

REPORT ON TOTAL 750 CASES AT END OF THE YEAR

	<i>Percentage.</i>
62 mothers and babies still in the homes .. .. .	8·2
59 babies have died .. .. .	7·8
101 babies have been adopted .. .. .	13·4
14 babies are in homes (without the mother) ..	1·9
27 babies are with foster mothers .. .. .	3·6
22 girls have married the babies' fathers.. ..	3·0
73 mothers and babies have left the city .. ..	9·7
392 mothers at home with their babies .. .. .	52·2
—	
750	
—	

GIRLS UNDER AGE OF CONSENT

13 years old .. .. .	1
14 years old .. .. .	1
15 years old .. .. .	6
16 years old at delivery, 15 at conception .. ..	10
	—
	18
	—

During the year 1,914 home visits were paid, and 573 cases were visited in hospital. There were 3,212 interviews at the Council House, including 604 first applications.

Owing to the increased number of cases it has been difficult to find suitable accommodation, and the use of Pype Hayes Hall, for short periods, has been very helpful. During the year they admitted 34 mothers with their babies and 15 babies without their mothers, until adoption or other suitable arrangements could be made.

There have been 21 cases of venereal disease ; 6 attended at the General Hospital and 4 at Lancaster Street for treatment. Four cases were sent to Cleveland House. The other 7 cases were admitted to Birmingham Infirmary.

### *Lodging Money Grant*

The grant of £5 per month made by the Committee to assist in paying for lodgings for the unmarried mother has been of great help to the work. Of the 750 cases dealt with 192 were living in lodgings, 50 of these were found more suitable lodgings where their babies could be "minded daily," and 24 were helped financially under this new scheme.

During the year £62 14s. 0d. was spent on lodgings, but £11 6s. 6d. has been refunded. Therefore the actual cost to the Department was £51 7s. 6d., an average of £4 5s. 7½d. per month.

### **Infant Life Protection and Scheme for Foster Mothers**

The standard of foster homes offered, and the care given to children, has again been satisfactory.

Inquiries have been made from other parts of the country about our Foster Mother Scheme, because it is felt that it gives stability to infant life protection work. These inquiries indicate that there has been great difficulty elsewhere in obtaining suitable foster homes.

Here, rather fewer new homes have been dealt with, but those approved have given continuous care, and there have been fewer removals of children.

The decline in the number of new homes has been brought about by war conditions.

### *The Foster Mothers' Scheme*

Under this scheme the special workers paid 2,233 visits and gave 3,582 interviews.

*Total foster children dealt with during 1941* .. .. 483

#### *Illegitimate Children :*

Placed with foster mothers under Birmingham Scheme .. .. .	170	35%
Placed with foster mothers otherwise .. .. .	170	35%

#### *Legitimate Children :*

Placed with foster mothers under Birmingham Scheme .. .. .	25	5%
Placed with foster mothers otherwise .. .. .	118	25%

Nine foster children have reached the age of 5 years and 15 the age of 9 years, but all are remaining in the care of their foster mothers.

An inquest was held on a child that died of neglect and starvation while in the care of an unnotified foster mother. The woman was prosecuted for failure to notify that she had undertaken the care of the

child apart from its parents by day and night for payment. She was bound over for six months.

#### COST OF FOSTER MOTHER SCHEME

Amount paid to foster mothers ..	£3,647 14s. 5d.
Amount contributed by mothers ..	£1,581 9s. 5d.
	i.e., 43% of total.
Net cost to Public Health Department	£2,066 5s. 0d.
Average cost per child per week ..	6s. 3d.

#### Adoptions of Children in Birmingham

There has been nothing outstanding to report about this year's work. One feature has been the increase in the number of adopting parents applying to take an additional child into their home. The reports from many adopting parents who have had children for a long period have been most satisfactory.

The number of applications to adopt children received was 224, of which 31 were rejected. One hundred and six children were placed in homes and 55 foster children were adopted by their foster parents. Medical examination at the Carnegie Institute revealed serious defects in two cases, and these children were suitably dealt with. The number of applications to adopt accepted by the Court was 127.

The work has involved 1,335 office interviews and 446 home visits.

#### District Midwifery

At the end of 1941, 95 city midwives were in practice, together with 24 independent midwives (6 residing outside the city), and 6 midwives working on the Maternity Hospital and Queen's Hospital districts. Eight retired midwives have also been used as temporary relief midwives under the Emergency Powers Defence Act, 1939.

#### *City Midwives*

During the year city midwives have attended 7,943 cases, acting as maternity nurses in 1,488 of these. The average number of deliveries per month, per midwife, was 6.5 or 78 cases per year. This makes no allowance for 75 weeks lost by sick leave and 105 weeks by temporary evacuation of midwives, and shows a decrease on the averages of 86 for 1939 and 88 for 1940. Four midwives were lent to other authorities under the evacuation scheme for varying periods. There have been 17 resignations and 12 appointments made during the year.

#### *Supervision of Midwives*

During the year 1941, 262 midwives notified their intention to practise in the City. Of these, 8 resided outside the City, and therefore did not come under routine inspections.

Midwives sent for medical help in 2,369 cases ; for the mothers in 1,553 ; and for the child in 816.

*Reasons for Sending for Medical Help*

<i>Mothers.</i>		<i>Children.</i>	
Delayed labour ..	....301	Ophthalmia .. ..	503
Laceration of perineum ..	706	Prematurity .. ..	54
Hæmorrhage .. ..	129	Convulsions.. ..	2
Adherent placenta .. ..	30	Jaundice .. ..	17
Abnormal presentation ..	101	Deformity .. ..	28
Abortion or miscarriage ..	34	Skin eruptions .. ..	10
Rise of temperature ..	83	Other causes ... ..	202
Other causes .. ..	169		
<b>TOTAL .. ..</b>	<b>1,553</b>	<b>TOTAL .. ..</b>	<b>816</b>

Midwives were temporarily suspended for the following reasons : influenza, 6 ; bronchitis, 4 ; accident, 10 ; head cold, 8 ; other causes, 10.

The following visits were paid during the year by the supervisors of midwives :

Routine visits to midwives .. ..	507
Special visits to midwives .. ..	209
Visits to stillbirths .. ..	99
Visits after neo-natal deaths .. ..	133
Visits to ophthalmia neonatorum cases .. ..	1,292
Visits to puerperal sepsis cases .. ..	116
Other visits .. ..	414
Unsuccessful visits .. ..	683
Number of interviews with midwives.. ..	1,366

**Emergency Maternity Service**

This Service, whereby a consultant, a nurse with equipment, and an ambulance proceed to the patient's home in an emergency, was used for the domiciliary treatment of 10 confinements in 1941. The Emergency Service was of great value in these cases, in only one of which the outcome was unfavourable. This patient was a known case of cardiac disease who had refused hospital treatment. She developed heart failure during labour and died before arrival of the Emergency Service.

**Training of Midwives**

First Certificate of the Central Midwives' Board—The City Hospitals (Dudley Road and Selly Oak) and the City Maternity Home, 15, Wake Green Road, together with the Birmingham Maternity Hospital, are recognised for the first period of training ; while the City Maternity Home, Heathfield Road, is recognised for the second period of training.

*District Training*

Fifteen midwives were recognised as teachers for the second period of training, and during the year 44 pupils were dealt with by these midwives for part of their training.

### *Recognised Refresher Course*

The City Maternity Home, Wake Green Road, is recognised for this purpose in the West Midland area, and although these courses have, to a very great extent, been in abeyance since the outbreak of hostilities, an abbreviated Refresher Course was given to 36 City midwives, at the same time enabling them to obtain their Obstetric Analgesic Certificate.

### **The Inspection and Registration of Nursing Homes**

At the end of 1941 there were 32 registered nursing homes in the City.

During the year 2 nursing homes were closed for reasons associated with war conditions.

One new nursing home has opened during the year for 14 chronic medical patients. This was one of the homes closed during 1940, and is now under new management.

Two homes temporarily registered during 1940 were given final registration in 1941.

One home was re-registered for 13 chronic medical patients instead of 6.

The total number of visits paid to nursing homes during the year 1941 was 76.

Total number of beds in the Homes .. .. .	340
Number of Homes which are equipped for surgical work	7
Number of Homes which take chronic or senile cases only .. .. .	15
Number of Homes which take maternity cases only ..	3*
Number of Homes which keep some beds for maternity cases .. .. .	13†

\*With 14 beds. †With 59 beds.

### **Residential Schools**

There were 14 residential schools on the register at the end of 1941. These are schools which take boarders under nine years of age, and which therefore come within the provision of Section 219 of the Public Health Act, 1936.

One school closed down owing to the war. Four schools were evacuated.

### **Voluntary Homes**

These are Homes which receive young children under nine years of age, apart from their parents, for maintenance and care.

There were 15 such homes on the register at the end of the year. Six homes were evacuated for the whole of the year.



### *Middlemore Homes*

In May, 1941, the Ministry of Aircraft Production requisitioned and took over part of this home—mainly the boys' wing and part of the babies' home.

The children under five years of age were evacuated during the whole year.

### *Maryvale Convent*

During the year it was decided (owing to staffing difficulties) to admit only children over one year of age for the time being. A few of those under the age of one year were accommodated at Father Hudson's Homes, Coleshill.

### **Evacuation of Expectant Mothers, 1941**

These mothers are sent by special transport to hostels in reception areas two to three weeks before their confinement is due. They are then admitted to local maternity homes or hospitals, from which, after the birth of the child, they return home.

#### *Total Number Evacuated during the Year :*

Worcestershire .. .. .	442
Warwickshire .. .. .	390
	—
TOTAL .. .. .	832
	—

We are indebted to the two county authorities for the very careful and considerate treatment afforded to these mothers, many of whom have sent most appreciative messages.

### **Birth Control Clinics. Year ended 31st December, 1941**

	<i>Dudley Road Hospital.</i>	<i>Selly Oak Hospital.</i>
(1) Number of women seeking advice :		
(a) Married women suffering from gynaecological conditions, making pregnancy detrimental to health..	14	34
(b) Married women suffering from other forms of sickness detrimental to them as mothers in that child-bearing is likely seriously to endanger life .. .. .	6	34
(c) Other cases not coming within the categories authorised by the Ministry of Health .. .. .	3	7
(2) Number of women advised in birth control methods .. .. .	20	68
(3) Number in which birth control advice was given but pregnancy resulted ..	10	1

## SECTION C

### SANITARY CIRCUMSTANCES

#### Water Supply

No changes have occurred in the general water supply of the City during the year.

#### Routine Sampling of Corporation Water Supply

Routine weekly visits are paid to the waterworks at Frankley and Whitacre, and to the deep wells at Longbridge, Aston and Shortheath, and appropriate samples are submitted to bacteriological investigation and chemical analysis. In addition, routine monthly samples are taken from the three levels of supply in the City.

Close co-operation with the Water Department is maintained, particularly when it is necessary to carry out structural alterations, so as to ensure that no unwholesome water passes into supply.

The number of samples of Corporation water taken for examination during 1941 were :

Chemical .. .. .	166
Bacteriological .. .. .	496

#### Sampling of Well Waters

There are rather more than 300 wells in the City, serving about 400 premises. Bacteriological and chemical investigation of samples has been continued, 60 visits being paid to 49 premises during the year. These included private dwellings, farms, factories, and three institutions outside the City but under the control of the Public Health Committee. The number of visits remains small, owing partly to staff and transport difficulties, but mainly to the fact that the present survey is nearing completion.

Under Section 41 of the Factories Act, 1937, ten requests have been received for certificates of approval of factory drinking water from wells and other sources, the requests relating as a rule to the possibility of providing an emergency drinking water supply in the event of air raid damage to the City mains.

## Sanitary Inspection

Upwards of 75,000 visits were made during the year by the depleted staff of sanitary inspectors, despite the many calls made on their services in other capacities, both national and local.

Of this total, 35,279 house inspections were made for various reasons, and investigation of infectious diseases and miscellaneous complaints caused 11,368 visits.

The summonses taken out during the year were as follows :

General nuisances .. .. .	22
Common lodging houses .. .. .	7
Disobeying magistrates' orders .. .. .	2
TOTAL .. .. .	31

Magistrates' order obtained in 16 instances.

## Offensive Trades

Premises registered for the carrying on of offensive trades in the City were visited on 42 occasions, of which 27 were made to tripe boilers.

## Common Lodging Houses

At the end of the year there were fourteen registered common lodging houses in the City, affording accommodation for 870 males and 46 females. These premises have continued under regular supervision during the year.

Number of houses on register (for males only) ..	13
Number of houses on register (for females only) ..	1
Number of lodgers allowed .. .. .	916
Number of visits .. .. .	1,421

## Houses Let in Lodgings

At the end of the year there were 369 houses let in lodgings on the register, containing 2,461 rooms. They were let as follows :

Number of lets of single rooms .. .. .	934
Number of lets of two or more rooms together ..	582
Certified accommodation (persons) .. .. .	4,877

The visits and re-visits paid during the year numbered 108.

## Tents, Vans and Sheds

No complaints were received during the year with respect to tents, vans and sheds, and the powers delegated to the City Surveyor under the Birmingham Corporation (General Powers) Act, 1929, have been of value as regards the indiscriminate drawing of caravans on to land.

## Canal Boats

The number of boats inspected on the canals within the City area was 1,263.

These boats were registered for the accommodation of 3,886 persons, and when inspected were found to be carrying persons represented in terms of adults to the number of 2,688.

Of the 1,263 boats inspected during the year it was found that 1,153, or 91 per cent., were in good condition and conforming with the Act and Regulations, while in 110, or 9 per cent. of the total, various contraventions were found.

Complaint Notes were duly served on the owners in all cases. There were 60 contraventions outstanding at the end of 1940, and a further 253 were found during 1941. Of these, 235 were remedied during the year, leaving 78 still outstanding at the end of December last.

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

## Factories Act, 1937

The visits paid under the Factories Act, 1937, numbered 2,914. As a result of these visits notices were served to remedy unsuitable or defective sanitary accommodation, want of cleanliness, inadequate ventilation, etc.

The survey of all premises within the scope of the Factories Act, 1937, has been continued, and the classification of those premises so far inspected is as follows :

Factories with mechanical power .. .. .	3,809
Factories with no mechanical power .. .. .	894

Additional inspectorial work became necessary owing to enemy action, and to the fact that numerous firms changed their sites or added extensions to their premises. The change over from male to female labour also resulted in additional advisory visits, involving co-operation between the manufacturers, the architects and inspectors of this department, with particular reference to the problem of utilising and improving the existing sanitary accommodation to suit the new conditions.

## Rats

The usual activities towards rat extermination were carried out throughout the year, and close co-operation with the Ministry of Food was maintained. Eight hundred and thirty-nine visits were paid to premises with 552 subsequent re-inspections.

The number of complaints received as to rat infestation of premises damaged by enemy action was higher than previously, and in each

case appropriate measures were taken. The Department has worked in close co-operation with the City Engineer and Surveyor's Department with respect to the clearance of sites of properties damaged by enemy action which were found to be rat infested.

### Supervision of Shops

There are some 27,000 shops in the City area, and three inspectors were employed to carry out the work of inspection in relation to the Shops Acts and other legislation.

The Defence Regulation 60A, amending the Shops (Hours of Closing) Act, 1928, was in operation from November 17th, 1940, until March 2nd, 1941, and again from November 2nd, 1941, until February 28th, 1942, the closing hours being fixed at 6-0 p.m. during the week and 7-30 p.m. on Saturday, according to the terms of the Regulation. Exceptions were, however, allowed in the case of newspapers and tobacco and smokers' requisites.

In November the Regional Commissioner introduced the Shops (Winter Closing) (Birmingham) Order, 1941, under Defence Regulation 60AC. This Order, which was in force from the 16th November, 1941, to the 28th February, 1942, applied only to a defined area in the City centre, and required closure at 4-0 p.m. (7-30 p.m. on Saturdays).

As a result of the earlier closing of shops the inspectors have had fewer complaints concerning the hours worked in excess of the statutory number by juvenile employees.

For various reasons, but particularly because of the shortage of goods for sale, offences under these Acts were very infrequent, and no summonses were issued during the year. Various contraventions were recorded, and special warning letters were sent where necessary, which had the desired effect of obtaining compliance without further action being taken.

The work of the inspectors during the year is summarised as follows :

NUMBER OF VISITS PAID	
General inspection visits .. .. .	4,335
General inspection re-visits.. .. .	1,512
<i>Special Visits regarding :</i>	
Sunday Trading Restrictions Act, 1936 .. .. .	811
Night closing of shops (1928 Act and Young Persons Employment Act, 1938) .. .. .	536
Half-day closing of shops (1912 Act) .. .. .	337
Appointments (various Acts) .. .. .	213
Number of streets patrolled by day (1912 Act) .. .. .	973
Number of streets patrolled by night (1928 Act and Defence Regulations) .. .. .	606
Sunday patrol (Sunday Trading Restriction Act, 1936).. .. .	98
Patrol (Butchers' Closing Order, 1921) .. .. .	27

## SUMMARY OF OFFENCES REPORTED

Failure to exhibit statutory forms and notices .. .. .	1,221
Contraventions of closing hours .. .. .	159
Other offences .. .. .	44
	—
TOTAL .. .. .	1,424
	—
Warning letters sent .. .. .	89

### Noise

Very few complaints have been received and these related mainly to new premises adjacent to dwelling houses. Several complaints came from night workers unable to obtain rest during the day, whilst others resulted from work carried out at night by fire watchers during non-alert periods.

### Fumes

Industrial fumes have been the cause of a number of complaints, and co-operation between H.M. Inspector of Factories and this Department has been valuable in dealing with these.

### Swimming Baths and Pools

Close supervision of the following baths has been continued :

Corporation indoor swimming baths .. .. .	9
Education Department .. .. .	3
Home Office schools .. .. .	1
Business firms .. .. .	1
Private open-air baths .. .. .	1
	—
	15
	—

### Public Baths

All Corporation swimming baths have now had mechanical filtration and sterilisation plant installed, but all cylinders of chlorine have been withdrawn owing to the danger of liberation of the gas as a result of enemy action, and the less easily controlled method of hand spraying with chlorine liquid was in use throughout the year.

The quantitative test for free chlorine has been continued, and while the adopted standard of 0·2-0·5 parts per million has not been attained consistently in all baths, in only two of the 108 samples was there an entire absence of free chlorine.

### Private Baths and Swimming Baths in Institutions

In accordance with the Bye Laws issued under the Public Health Act, 1936, Section 233, the local authority continues to supervise private baths. Two such baths were in use in 1941 (one during the summer

season only) and monthly samples were taken. Samples from four baths in Institutions (three under the control of the Education Department and one under the Home Office) were taken monthly throughout the season. In all these baths the water, as judged by bacteriological findings, was, as a rule, satisfactory, though the adopted chlorine standard was frequently not attained.

### **Verminous Conditions and Scabies**

There is no reliable means of assessing the incidence of either head or body-lice infestation in the adult population. Reports received from various sources have suggested that an increase has occurred in the case of head lice, and to a smaller extent as regards body lice, the latter condition appearing to be related largely to imported labour.

Inspectors have visited regularly premises where persons were reported to be verminous by reason of lice, and action has been taken under Section 84 of the Public Health Act, 1936, for the disinfection of clothing and bedding at the Corporation Cleansing Station, Bacchus Road. In a very few cases premises were sprayed with insecticide on account of lice (Section 83). Under Section 85 persons infested with body lice were treated at the Cleansing Station, but there was no occasion to make use of the powers for compulsion provided.

In Birmingham, as elsewhere throughout the country, there has been a pronounced increase in the prevalence of scabies. This has necessitated the provision of additional treatment centres and a revision of the method of treatment so as to reduce the number of attendances to be made by each patient. By arrangement with the Education Committee, the centres at Floodgate Street School and Sheep Street School Clinic, which are open during the day for the treatment of scabies in school children, were made available for adults and pre-school children in the evenings. These clinics were opened for this extended purpose in June, 1941, and are staffed and run on the same lines as the City Cleansing Station so far as the treatment of scabies is concerned. Bedding and clothing of patients treated at the new centres is disinfested at Bacchus Road Disinfection Station, Floodgate Street Centre is reserved for adult male patients and Sheep Street Centre for women and children. Three additional centres were opened at the first aid posts at Slade Road, Birchfield Road, and Church Road, Yardley, at the end of December, 1941. These will be reported on fully in the annual report for 1942.

Until March, 1941, the treatment for scabies was by sulphur baths, which involved three attendances from patients over a period of five days. This was replaced by benzyl benzoate treatment requiring only one attendance, and when this drug could not be obtained a modified treatment by sulphur ointment was employed involving two attendances in three days.

Information as to the incidence of scabies was received regularly from the Education Department and the Birmingham Skin Hospital, and on a smaller scale from general practitioners and other sources. Homes were visited by health visitors with a view to ascertaining whether other members of the family were affected and advising as to the disinfection of bedding and clothing.

The work at the Cleansing Station and Treatment Centres with regard to pediculosis and scabies is summarised in the following tables :

#### TREATMENT FOR LICE

(BACCHUS ROAD ONLY)

	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>
Number of treatments for head lice .. .. .	—	62	3	65
Number of treatments for body lice .. .. .	124	20	2	146

#### TREATMENT FOR SCABIES

*No. of patients treated.*

	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>	<i>Total.</i>
Sulphur baths .. .. .	52	35	31	118
Sulphur ointment .. .. .	22	59	25	106
Benzyl benzoate .. .. .	866	1,067	929	2,862
<b>TOTAL .. .. .</b>	<b>940</b>	<b>1,161</b>	<b>985</b>	<b>3,086</b>

The numbers of persons returning for a second course of treatment between fourteen days and two months after application of the first course—i.e., possible failures in treatment—were, in the case of benzyl benzoate 70 (2·4 per cent.), and in the case of sulphur baths 3 (2·5 per cent.). Sulphur ointment was used only for about one week at the end of the year, so that no second courses of treatment were given by this method.

### Disinfection

The following table gives details of the work done during 1941 :

Houses disinfected after small-pox .. .. .	—
Houses disinfected after scarlet fever .. .. .	9
Houses disinfected after diphtheria .. .. .	1,672
Houses disinfected after enteric fever .. .. .	109
Houses disinfected after tuberculosis .. .. .	1,421
Houses disinfected after cancer (on request) .. .. .	54
Houses disinfected after miscellaneous diseases (on request) .. .. .	592
Beds disinfected .. .. .	2,666
Miscellaneous articles of clothing and bedding disinfected .. .. .	48,219
Library books disinfected .. .. .	1,064
Public conveyances disinfected .. .. .	8



## SECTION D

### HOUSING

#### **Housing Act, 1936**

Members of the staff were engaged during the year in dealing with urgent matters coming within the purview of the Housing Acts and also with carrying out duties in conjunction with officers of the Estates and the Public Works Departments under the Housing (Emergency Powers) Act, 1939.

Slum clearance activities have continued to be suspended owing to conditions arising out of the war. Action under Section 11 of the Housing Act, 1936, had to be taken in two cases owing to rapid deterioration and grave dilapidation, as well as in one other case, in which an improvised dwelling fell far below any bye-law standard tolerable even under war conditions. The housing situation continued difficult throughout the year owing to the effect of air raids and the accumulation of dilapidations.

The general condition in some of the houses situated within the boundaries of clearance areas already approved by the City Council and confirmed by the Ministry of Health is becoming acute, and there is urgent need for alternative accommodation for persons living under extremely undesirable conditions.

A large-scale improvement in housing conditions and a comprehensive long-term programme are, no doubt, in the mind of the Government as forming a basic part of post-war policy. Interviews between officers of the Department and of the Town Planning Section of the Public Works Department and representatives of the Ministries concerned were of a character helpful towards that end. Preliminary area and redevelopment plans have been reviewed, and initial preparations made for the operation at short notice, when so determined by the City Council in association with the Ministry, of any part of the slum clearance scheme.

#### **Overcrowding**

While there is little reliable information at present as to the degree of statutory overcrowding in the City, the fact of such overcrowding, sometimes in severe degree, is indicated by complaints received with growing frequency in the Department. Unfortunately, owing to lack of alternative accommodation, little can be done except to refer the worst cases to the Estates Department for such measure of relief as they are in a position to arrange.

The causes of this recent overcrowding, set out in the report for 1940, continue to apply, particularly the influx of industrial workers into the City, and the practice of letting and sub-letting in lodgings.

### **Sanitary Supervision of Public Shelters**

At the commencement of 1941 public shelters were extensively used by the public for sleeping purposes. During the first three months of the year the absence of raids combined with the very cold weather to bring about a steady reduction in the number of people sleeping in shelters, and by the middle of the year there remained only a "hard core" of probably 1,500 to 2,000 people who continued to use the shelters at night. By the end of the year there remained only a few people—probably under 500—using the shelters regularly for sleeping purposes.

The sanitary supervision of public shelters, initiated at the end of 1940, was developed throughout 1941. Sanitary inspectors paid regular day and night visits, special attention being paid to "dormitory shelters"—i.e., those regularly used for sleeping purposes. Defects of structure and management were reported to the City Surveyor, and direct steps were taken to remedy sanitary defects. The year 1941 saw a vast improvement in the general condition of the shelters, as regards cleanliness, sanitation, ventilation, heating, abolition of damp, provision of bunks and closure of the most unsuitable sites.

In October, 1941, the control of public shelters passed to the Air Raid Precautions Officer, under whom special officers were appointed to supervise conditions in the shelters. As their work largely coincided with that of the sanitary inspectors, the latter were able to curtail the number of their visits and to discontinue routine night visits.

Periodic inspection of shelters in use by the public, or in which special medical services are provided, were made by a member of the medical staff.

Arrangements were made whereby a doctor or midwife can be called to the shelter when required: the names of midwives are posted in the shelters, and in the case of doctors the same arrangement was in force during the greater part of the year, but latterly it has been found more convenient to call them through the nearest first aid post.

In eleven of the largest shelters medical aid posts have been provided to deal with cases of acute illness or accident arising in the shelter. During the early months of 1941 one such post was kept fully staffed and equipped—and others fully equipped. It was found, however, that with a diminishing shelter population there was little justification for maintaining this provision, and at present all movable equipment is kept in store—with arrangements for immediate distribution to the

posts if required—and both medical and nursing staff are on call. As regards nurses, we are indebted to the Birmingham District Nursing Association for their co-operation. Simple " Health Notes " are displayed in all public shelters.

Throughout the year " Welfare Posts " in a number of public shelters were manned by members of the Friends' Ambulance Unit. Their work included first aid and minor medical attendance, and this opportunity is taken to express appreciation of their valuable service.

No outbreak of disease is reported as having occurred in or in connection with any public shelter. Scabies was prevalent in one shelter for a short period, but it is doubtful if the incidence was higher than in the district served by the shelter at that time.

## SECTION E

### INSPECTION AND SUPERVISION OF FOOD

#### Food Premises

The inspection of retail food premises, as required by Section 13 of the Food and Drugs Act, 1938, has continued on a scale much reduced, owing to shortage of staff and transport.

As from November, 1941, it was arranged that similar routine inspections should be made of "British Restaurants" in the City.

Various defects have been found in food premises visited, but in all cases the proprietors of the premises concerned have given ready co-operation in removing the objections and applying remedies.

Twenty-four "eating houses" were added to the register required by Section 54 of the Birmingham Corporation Act, 1935, and twenty-three "transfer registrations" were made during the year.

#### Ice Cream

The number of registrations and transfer registrations remains small owing to restrictions in the use of milk, sugar, etc.

Systematic visits were paid to all premises registered for the manufacture of ice cream, and it was found that the necessary standard of cleanliness was being maintained.

	<i>Manufacturers.</i>
Total number of premises on the register .. ..	498
New premises registered during 1941.. ..	4
Transfer of ownership of registered premises during 1941 .. .. .	6

#### Milk and Dairies Administration

Close contact has been maintained with the dairy trade, and much practical advice has been given to dairymen on the handling and care of milk and milk products, and in planning the reconstruction and improvement of premises.

The following table shows the alterations in the Milk and Dairies Register during 1941 :

	1939.	1940.	1941.
Number of wholesale purveyors .. ..	66	64	62
Number of retail purveyors .. ..	389	339	295
Number of milkshops .. ..	2,015	1,902	1,892
Number of bottled milk purveyors ..	4,349	4,219	4,263

## Milk (Special Designations) Regulations, 1936-1941

The following licences were issued during 1941 :

### *Principal Licences :*

Producers of tuberculin tested milk .. .. .	1
Dealers in tuberculin tested milk .. .. .	24
Producers of accredited milk .. .. .	16
Dealers in accredited milk .. .. .	10
Producers of pasteurised milk .. .. .	14
Dealers in pasteurised milk .. .. .	191

### *Supplementary Licences :*

Dealers in tuberculin tested milk .. .. .	8
Dealers in accredited milk .. .. .	7
Dealers in pasteurised milk .. .. .	3

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Systematic bacteriological examinations of these designated milks and their containers were carried out, 426 samples being taken for this purpose. Relative to the standard laid down in the Regulations, 37 per cent. failed by reason of the presence of *B.coli* in 1/100th of a millilitre, and 12 per cent. failed to pass the methylene blue test. The high percentage figure for *B.coli* is partly to be explained by a series of adverse results obtained from one particular pasteurising plant, which necessitated taking additional samples, all of which showed coli before the trouble was finally corrected.

As regards pasteurised milk, 14 per cent. failed to pass the bacterial count test, and of 194 samples submitted to the phosphatase test, 32 or 16 per cent. failed to reach the required standard. The improvement noted last year in the phosphatase test results has been maintained, indicating that in spite of the many difficulties encountered the process of pasteurisation has generally been carried out with care and efficiency.

In general, these results, compared with those for the two previous years, indicate a further slight reduction in the general standard of cleanliness. Such a finding is not unexpected in view of the many war-time difficulties generally experienced by dairymen. Of such difficulties, perhaps the most serious is the shortage of experienced labour at farms, dairies and the big processing establishments, with the result that milk is being handled to an increasing extent at all stages between the cow and the consumer by unskilled workers who have little appreciation of the importance of a technique towards cleanliness in the handling of milk.

## The Inspection of Cows and Cowsheds within the City Area

*Extracts from Report by MR. BRENNAN DE VINE, F.R.C.V.S., Chief Veterinary Officer.*

### *City Dairies*

At the end of 1941 there were forty-one dairy farms housing 724 milch cows in 100 registered sheds in the City area.

The Milk and Dairies Order requires the registration of cowkeepers and enforcement of general requirements as to structure and cleanliness of cowsheds, and for this purpose a monthly inspection is made of all City cowsheds; and, in addition, all cows in City dairies are examined. During the year 1,149 visits of inspection were made to cowsheds.

### *Dairy Herds*

The health and cleanliness of the cows in City dairies were generally good. The cows are regularly examined, with a view to preventing danger to health from the sale of infected, contaminated or dirty milk, and in particular, for prohibiting the supply or sale of milk suspected of being infected with tuberculosis.

### *Mastitis*

During the year there were thirty cases of cows affected with acute catarrhal mastitis, and the milk produced from these cows was prohibited from sale.

### *Tuberculosis*

In addition to the clinical examination of the dairy cows, bulk samples of milk were taken from each City dairy herd during the year; also individual samples of milk were taken from suspected cows.

				<i>Taken. Infected.</i>	
Mixed samples from dairy herds	..	..	..	65	8
Individual samples	..	..	..	18	2
				—	—
TOTALS	..	..	..	83	10
				—	—

As a result of clinical examination and the sampling of milk seven cows affected with tuberculosis were removed from City dairy herds during the year and dealt with under the Tuberculosis Order.

In addition, at the request of the Ministry of Agriculture and Fisheries, post-mortem examinations were made on fourteen cows dealt with under the Tuberculosis Order and sent to the City Meat Market from farms outside the City.

## Inspection of Cowsheds

Regular inspection has been maintained of all registered cowsheds, attention being paid to the provisions of the Milk and Dairies Order for securing adequate lighting, ventilation and a clean water supply, also the cleansing of cowsheds and removal of dung and offensive matter.

In spite of labour shortage every effort has been made to keep the cowsheds properly limewashed or sprayed with lime at least twice during the year.

Repairs and structural alterations to cowsheds have either been completed during the year, or are still being carried out under our supervision, at two farms.

### *Milk and Dairies (Consolidation) Act, 1915*

In connection with the ascertainment of the source of supply of milk, the consumption of which is likely to cause tuberculosis, notification under Section 4 of this Act was sent in 189 cases to the Medical Officer of Health of the county or county borough in which the cows yielding the milk were kept. It is the duty of the County Medical Officer of Health 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 living tubercle bacilli.

### *Comparative Return*

The following table shows the number of samples of milk, sent in from outside sources, taken during the past ten years and the percentage infected :

<i>Year.</i>	<i>Samples. Taken.</i>	<i>Samples. Infected.</i>	<i>Percentage Infected.</i>
1932 .. .. .	1,086	97	8.9
1933 .. .. .	1,694	108	6.4
1934 .. .. .	1,699	109	6.4
1935 .. .. .	1,668	134	8.0
1936 .. .. .	1,648	166	10.1
1937 .. .. .	2,267	232	10.2
1938 .. .. .	2,386	208	8.7
1939 .. .. .	1,867	173	9.3
1940 .. .. .	2,237	244	10.9
1941 .. .. .	2,377	189	8.0
AVERAGE FOR PERIOD .. .. .			8.7

### SUMMARY OF SAMPLES OF MILK TAKEN DURING 1941

	<i>Number Taken.</i>	<i>Number Infected.</i>
<i>From Outside Dairies :</i>		
Tuberculin tested, accredited, and non-designated .. .. .	2,377	189
<i>From City Dairies:</i>		
Mixed samples .. .. .	65	8
Individual samples .. .. .	18	2
<b>TOTAL .. .. .</b>	<b>2,460</b>	<b>199</b>

## **Tuberculin Testing of City Dairy Herds and of Herds belonging to Corporation Institutions**

Three herds, comprising 281 animals, were tested by the Department during 1941 as follows :

	<i>Approx. No. in Herd.</i>	<i>Breeding Herd.</i>
1 .. .. .	70	1
2 .. .. .	131	1
3 .. .. .	80	1
TOTAL .. .. .	281	3

### **Inspection of Meat and Other Foods**

On the 15th January, 1940, the Livestock (Restriction on Slaughtering) Order, made by the Ministry of Food, came into force. The result of the introduction of this Order is that the slaughtering of cattle, sheep and a certain number of pigs, carried out in Birmingham, is concentrated at the Public Abattoir. In addition to that centre there are fifteen bacon factories in the City for the slaughter of pigs. Previous to the Ministry of Food taking control of slaughtering there were 83 private slaughterhouses in use.

For the purposes of the inspection of meat in the Public Abattoir and in the fifteen bacon factories, there are employed six Veterinary Meat Inspectors and five Sanitary Meat Inspectors. The food inspection in the shops and food stores in the City is carried out by eight District Inspectors. There is also one Inspector employed in the Wholesale Fruit, Vegetable and Fish Markets.

Under the new régime whereby the Ministry of Food take control of slaughtering, the local authority continue meat inspection and inspection of slaughtering as carried out prior to the change.

### **Shell Fish**

During the year twenty-two samples of shellfish were taken and sent for bacteriological examination ; one sample of mussels was found to be below the standard of cleanliness required.

### **Fish Friers' Premises**

The trade of fish frier within the City of Birmingham was, in 1930, declared to be an offensive trade, and bye-laws were introduced for regulating the trade. Six hundred and forty-one shops in the City were placed on the register. On the expiration of these bye-laws, new bye-laws were approved by the City Council, 7th May, 1940, and confirmed by the Minister of Health, 1st August, 1940. Fish frying is no longer declared to be an offensive trade in Birmingham.



During the past ten years we have endeavoured, whenever fried fish shops have been opened, to see that the premises complied with the bye-laws with respect to sanitary conditions, etc. These fried fish shops were to be used solely for the sale of fried fish and chips, but since the beginning of the war many of them have had their normal business interfered with, owing to lack of supplies and to the falling off of trade due to the black-out.

### Registered Premises used for the Manufacture of Cooked and Potted Meats

There are 162 food preparation premises on the register as follows :

Cooked meats .. .. .	}	.. ..	164
Sausage and pork pie manufacturers			
Jam manufacturers .. .. .			
TOTAL .. .. .			166

### Retail Shops

Beef and pork butchers .. .. .	1,058
Grocers .. .. .	1,487
Greengrocers .. .. .	1,259
Hucksters .. .. .	4,161
Fish friers .. .. .	428
Fishmongers .. .. .	630
Horseflesh .. .. .	1
TOTAL .. .. .	9,024

### Damaged Foodstuffs

The Inspectors of the Veterinary Department have had a great number of cases to deal with in which foodstuffs have been damaged. This work has been carried out in conjunction with the Area Officers of the Ministry of Food.

### Diseases of Animals Acts

#### *Swine Fever*

During the year 67 cases of suspected swine fever were investigated and post-mortem examinations made.

In two of these cases symptoms of swine fever were detected and reported to the Ministry of Agriculture and Fisheries; both of the cases were confirmed.

Under the Regulation of Movement of Swine Order of 1922, we examined during the year 3,831 store pigs which were brought into the City under licence.

### *Bovine Tuberculosis*

Seven cases of tuberculosis in City dairies, coming within the conditions of the Tuberculosis Order, 1938, were dealt with during the year.

In addition, at the request of the Ministry of Agriculture and Fisheries, post-mortem examinations were made on fourteen cows dealt with under the Tuberculosis Order and sent to the abattoir from farms outside the City area.

### *Foot and Mouth Disease*

During the year there were 264 outbreaks in various parts of the country, and 27,037 animals were slaughtered. In several cases in-contact animals had been brought to Birmingham, but these we were able to trace and place under detention.

## SECTION F

### PREVALENCE OF, AND CONTROL OVER, INFECTIOUS AND OTHER DISEASES

#### GENERAL

The mortality figures for 1941 are compared with the decennial (1931-1940) averages in the statement below :

<i>Disease.</i>	<i>Deaths in 1941 above or below the average for 1931-40.</i>
Enteric fever .. .. .	+ 3
Smallpox .. .. .	—
Measles .. .. .	— 5
Scarlet fever .. .. .	— 8
Whooping cough .. .. .	+ 39
Diphtheria .. .. .	+ 24
Pulmonary tuberculosis .. .. .	— 25
Other forms of tuberculosis .. .. .	— 8
Influenza .. .. .	—116
Cerebro-spinal fever .. .. .	+ 58

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

<i>Disease.</i>	<i>Cases noti- fied in 1941 above or below the average for 1931-40.</i>
Enteric fever .. .. .	+ 114
Smallpox .. .. .	—
Scarlet fever .. .. .	—1,075
Diphtheria .. .. .	+ 466
Erysipelas .. .. .	— 155
Puerperal pyrexia .. .. .	— 6
Ophthalmia neonatorum .. .. .	+ 236
Pulmonary tuberculosis .. .. .	— 160
Other forms of tuberculosis .. .. .	— 51
Acute primary or influenzal pneumonia .. .. .	— 469
Cerebro-spinal fever .. .. .	+ 275
Acute poliomyelitis .. .. .	— 4
Polioencephalitis .. .. .	+ 2
Encephalitis lethargica .. .. .	— 15
Malaria .. .. .	— 2
Dysentery .. .. .	+ 55

The incidence of cerebro-spinal fever was somewhat lower, but its fatality somewhat higher than in 1940. Diphtheria continued to take heavy toll and its incidence in a severe form was markedly higher than in 1940. The increased incidence of tuberculosis was comparatively slight as compared with 1940.

The apparent prevalence of "ophthalmia neonatorum" is illusory, and, as in previous years, implies only a playing for safety, in the notification of many cases of eye inflammation in infants, neither severe in itself nor due to the gonococcus.

### **Enteric Fever**

There were 199 cases notified as enteric fever, and of these 53 proved negative, while 3 notified as some other disease were suffering from enteric fever, thus giving a total of 149 true cases notified during 1941. Six of these cases ended fatally.

### **Outbreaks of Paratyphoid B Fever**

Two outbreaks of paratyphoid B fever occurred during the year, both being associated with synthetic cream. The larger of the two commenced in May and cases were reported from a wide area of the West Midlands, only about one-third of the total of 231 cases occurring in Birmingham. The area involved coincided with that supplied by a large firm of confectioners having a central bakery in Birmingham, and the case histories proved beyond reasonable doubt that synthetic cream was the actual vehicle of infection.

The smaller outbreak occurred in October and cream confectionery was again involved, the firm concerned having a central bakery in the City and an extensive retail trade throughout the West Midlands. Most of the cases occurred in Birmingham, but a number were reported throughout the area supplied by the firm in question.

In both outbreaks the heaviest incidence fell on women and young children, as was to be expected from the nature of the vehicle of infection. There were eight deaths in the May outbreak—a fatality rate of 3·5 per cent., but only three of these were Birmingham residents. There were no fatal cases in the October outbreak.

A feature of the outbreaks was the number of very mild cases which came to the notice of the Department, mostly as a result of the examination of contacts, but a number were notified as cases of food poisoning.

Routine investigations were carried out at the bakeries concerned and appropriate action taken. Several carriers were found among members of the staff in each instance and these were admitted to Little Bromwich Hospital for investigation. A large number of samples of synthetic cream were submitted to bacteriological examination, and

although no paratyphoid organisms were found, many gave a very adverse result, and the circumstantial evidence was such as to leave no reasonable doubt that this product was the vehicle of infection in each of these outbreaks. On the evidence available it is impossible to say at what stage the cream became infected, whether during manufacture or at a bakery.

Synthetic cream is not manufactured in this City, and therefore representations were made, through the Ministry of Health, to those local authorities in whose area this product is manufactured, and as a result there was a marked improvement in the bacterial standard of synthetic cream coming into the City, and this has been maintained. In addition, precautionary measures were taken at all bakeries and other premises in the City where synthetic cream is handled, and a careful watch has been maintained at these premises.

### Undulant Fever

No cases of undulant fever came to the notice of the Department during the year.

### Glandular Fever

No cases of this disease came to the notice of the Department during the year 1941.

### Smallpox

No cases of smallpox occurred in the City during the year.

### Vaccination

Following are tabulated statistics relating to this work for the current year, together with similar figures relating to each year since 1932. It will be seen that from 1939 to 1940 the percentage of successful vaccinations fell from 52.9 to 49.9 per cent. of those eligible for vaccination, whilst 1941 showed a very slight rise in percentage, from 49.9 to 51.2.

	VACCINATION									
	1941.	1940.	1939.	1938.	1937.	1936.	1935.	1934.	1933.	1932.
Conscientious objectors										
per cent. of total births	22.6	27.5	31.2	31.8	31.2	31.0	30.6	29.5	28.0	28.0
Successful vaccinations..	51.2	49.9	52.9	52.6	51.9	51.7	50.8	53.1	55.4	54.8
Insusceptible percentage										
of survivors .. ..	0.8	0.4	0.5	0.6	0.3	0.5	0.4	0.5	0.9	1.0
Postponed by medical										
certificate .. ..	0.4	0.6	0.4	0.3	0.3	0.5	0.3	0.5	0.4	0.4
Removed .. ..	5.3	4.3	3.9	3.9	3.8	3.4	4.9	4.1	3.8	3.5
Lost sight of .. ..	7.4	5.0	3.5	3.2	3.5	3.0	2.6	2.6	2.6	2.7
Still under notice ..	10.9	10.9	6.1	5.9	7.3	8.1	8.7	8.0	7.6	7.9

## **Measles**

Cases notified to the Department have been visited when appropriate by health visitors, and advice as to nursing and general hygiene given.

During the year 927 cases were admitted to Little Bromwich Hospital for treatment.

Immunisation methods are applied in suitable contacts for the attenuation of infection or the prevention of the disease. The blood serum of a person who has previously suffered from measles, when given intra-muscularly 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. Immunisation has been carried out on 240 children during the year with satisfactory results. The inoculations were for prevention in 77 cases and for attenuation in 163.

## **Scarlet Fever**

The number of cases notified showed some decrease, as did the case mortality.

As in previous years, the cases were treated in hospital where home conditions made this advisable, otherwise they were treated at home.

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

## **Whooping Cough**

Whooping cough showed considerable prevalence.

During the year 591 cases were admitted to the Infectious Diseases Hospital.

All cases of whooping cough are 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, and of cases confirmed in diagnosis, was considerably greater than 1940.

There were 92 cases treated in the City Hospital on behalf of other authorities.

While, as in the country as a whole, prevalence of diphtheria thus increased markedly in 1941 over that in 1940, it has to be noted that out of the total cases, the bulk of which occurred in the child population, only one-tenth—nearly all mild, and with no deaths—occurred in the

immunised half of the child population, while nine-tenths of the cases and all the deaths occurred in the remaining non-immunised half of that child population. This in itself is a fact of great significance in relation to the value of immunisation against this disease.

DIPHTHERIA CASE MORTALITY.							<i>Case Mortality per cent.</i>
1901-10 (average)	..	..	..	..	..	..	14.1
1911-20	..	..	..	..	..	..	13.6
1921-30	..	..	..	..	..	..	5.8
1931-35	..	..	..	..	..	..	6.9
1936	..	..	..	..	..	..	5.5
1937	..	..	..	..	..	..	5.9
1938	..	..	..	..	..	..	6.5
1939	..	..	..	..	..	..	7.3
1940	..	..	..	..	..	..	6.0
1941	..	..	..	..	..	..	6.0

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 eighteen police stations.

#### DIPHTHERIA IMMUNISATION

1941 was a record year for immunisation against diphtheria—a total of 25,020 children under fifteen years being immunised during the year. From fifteen years upwards 260 were recorded—the majority being institution and day nursery staff.

Children under 5 years of age immunised by the Public Health Department Staff .. .. .	14,083	} Total under 5 years, 16,423
Children under 5 years of age immunised by General Practitioners with T.A.M. supplied free by the Public Health Department .. .. .	2,340	
Children from 5 to 15 years of age immunised by the Public Health Department Staff .. .. .	7,641	} Total 5 to 15 years, 8,597
Children from 5 to 15 years of age immunised by General Practitioners with T.A.M. supplied free by the Public Health Department .. .. .	956	

The work has been carried out mainly at welfare centres and a scheme was established for regular visiting of day nurseries.

44.8 per cent. of the pre-school children visited by the Department have now been inoculated.

## **Dysentery**

One hundred and three cases were notified during the year, but on investigation 9 of these proved not to be dysentery, while 4 patients notified as some other disease were found to be suffering from dysentery, making a total of 98 clinical cases.

Bacteriological confirmation was made in 78 of these instances. Fifty out of the total were institutional cases, where not infrequently the condition was quite mild and the diagnosis followed on the bacteriological findings.

## **Malaria**

Three cases of malaria were reported during the year, and in all cases infection had been contracted abroad. There were no deaths.

## **Food Poisoning**

During the year under review 375 cases of food poisoning were notified to the Department. The majority were of a trivial nature not calling for any specific action by the Public Health Department, but during the early months of the year an outbreak occurred in the City, affecting some 78 persons, who suffered in varying degrees of severity from muscular pains, fever and swelling of eyelids. There were no deaths.

These were diagnosed as trichiniasis and further particulars were as follows :

## **Trichiniasis**

An outbreak of this disease occurred in Birmingham in February, March and April, 1941. It is caused by a parasitic worm and is contracted by eating raw or under-cooked pork. Large-scale outbreaks have never been reported in England prior to 1941, but several districts were affected during this year, and the Birmingham outbreak followed closely upon a similar epidemic in Wolverhampton.

Seventy-eight definite cases, and a further eight doubtful ones, were reported. Female patients predominated (81 per cent.), and six children were affected. There were no deaths. The leading symptoms were fever, swelling of the eye-lids and muscular pains.

After the first case had been brought to the notice of the Department a letter was sent to all medical practitioners drawing their attention to the symptoms of the condition and asking them to notify cases as cases of food poisoning under Section 17 of the Food and Drugs Act, 1938.

Enquiry into the cases thus notified showed that most patients had become infected by eating raw or lightly cooked sausage : frequently the patient had eaten a small piece of raw sausage when cooking a meal, which accounts for the predominance of females among those affected.



Attempts to trace the source of the infected meat back to the farms were unsuccessful, owing to the wide area from which Birmingham draws its pork and the complex system of pork distribution obtaining in war-time.

Notices were posted in the Press warning the public to cook thoroughly all pork or pork products.

It is believed that the outbreak (as well as those elsewhere in the country) resulted from the killing off by farmers of old boars and sows, owing to the shortage of animal feeding stuffs. These older animals, which are more likely to be infected with trichiniasis, probably would not have entered the market for human consumption in peace-time.

A curious feature of the outbreak is that it reveals the prevalence of a habit of eating raw sausage in the Midlands.

### Acute Anterior Poliomyelitis

Ten cases of this disease were notified, but two of these proved not to be anterior poliomyelitis.

There were two deaths from this disease during the year.

### Polioencephalitis

Three cases of this disease were notified during the year, and there were two deaths.

### Encephalitis Lethargica

During the year six fresh cases of this disease were notified in the City, of which two proved not to be encephalitis. There were 22 deaths from this disease, all having an onset prior to 1941.

### Cerebro-spinal Fever

There were 424 cases notified as cerebro-spinal meningitis during the year. In 84 cases the diagnosis was afterwards revised, and two patients, admitted as some other disease, were found to be suffering from cerebro-spinal fever. Of the 342 actual cases, 72 succumbed to the attack, giving a case mortality rate of 21·1 per cent.

<i>Age Distribution.</i>							<i>Cases.</i>
Under 1 year	..	..	..	..	..	..	37
1 and under 2 years	..	..	..	..	..	..	24
2	..	5	..	..	..	..	57
5	..	10	..	..	..	..	33
10	..	15	..	..	..	..	16
15	..	20	..	..	..	..	34
20	..	25	..	..	..	..	23
25	..	35	..	..	..	..	44
35	..	45	..	..	..	..	32
45 years upwards	..	..	..	..	..	..	42

# REPORT ON THE CITY INFECTIOUS DISEASES HOSPITALS FOR THE YEAR 1941

By DR. J. MCGARRITY, *Medical Superintendent.*

## STATISTICS

### Little Bromwich

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

In hospital on December 31st, 1940 .. .. .	238
Admitted during 1941 .. .. .	1,796
Discharged during 1941 .. .. .	1,699
Died during 1941 .. .. .	81
Remaining on December 31st, 1941 .. .. .	254

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

In hospital on December 31st, 1940 .. .. .	63
Admitted during 1941 .. .. .	517
Discharged during 1941 .. .. .	516
Died during 1941 .. .. .	3
Remaining on December 31st, 1941 .. .. .	61

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

In hospital on December 31st, 1940 .. .. .	327
Admitted during 1941 .. .. .	2,411
Discharged during 1941 .. .. .	2,438
Died during 1941 .. .. .	187
Remaining on December 31st, 1941 .. .. .	113

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

Bronchitis .. .. .	1
Chicken-pox .. .. .	62
Dysentery .. .. .	44
Encephalitis .. .. .	3
Enteric .. .. .	141
Enteritis .. .. .	3
Erysipelas .. .. .	94
Influenza .. .. .	1
Measles .. .. .	927
Meningitis .. .. .	225
Miscellaneous observation .. .. .	178
Mumps .. .. .	35
Pemphigus .. .. .	5
Pneumonia .. .. .	10
Poliomyelitis .. .. .	2
Puerperal .. .. .	32
Rubella .. .. .	57
Whooping cough .. .. .	591
<b>TOTAL .. .. .</b>	<b>2,411</b>

## Scarlet Fever

Five hundred and seventeen patients were admitted during the year with a notified diagnosis of scarlet fever: of these, 56 cases were finally diagnosed as suffering from other complaints. One of these patients died from mastoiditis, empyema and pericarditis.

Actually, 498 cases of true scarlet fever were treated in the wards during the year: of these, 29 were notified as diphtheria, three as measles, three as rubella and two as miscellaneous observations.

The type of scarlet fever continued to be mild, but there were three deaths, two due to septic scarlet fever and one to simple scarlet fever complicated by empyema and pericarditis.

The hospital mortality was 0·60 per cent.

The principal complications were as follow: 11 abscesses, 1 septic bursitis, 29 otitis, 6 nephritis, 45 adenitis, 4 broncho-pneumonia, 1 epistaxis, 2 endocarditis, 6 arthritis, 4 mastoiditis, 1 quinsy, 2 relapse, 1 empyema and pericarditis.

## Diphtheria

1,796 cases were admitted to the hospital with a notified diagnosis of diphtheria. Of these, 383 required revision of diagnosis and 26 were found to be suffering from diphtheria concurrently with another disease. Actually 1,421 true cases of diphtheria were treated in the wards during the year, including 2 notified as scarlet fever, 3 as whooping cough and 3 as miscellaneous observations.

Concurrent infections occurred in 26 cases.

The diagnosis had to be revised in 383 patients; of these, 195 were suffering from tonsillitis while 37 were merely carriers. The remainder suffered from a variety of complaints.

Five of the revised cases died, the cause being as follows: 1 from meningococcal meningitis, 1 from ulcerative stomatitis and toxæmia, 1 from uræmia, 1 from hypostatic pneumonia and 1 from tonsillitis and gastro-enteritis.

Seventy-six cases died from diphtheria during the year, representing a hospital mortality of 5·35 per cent. compared with 6·43 per cent. in 1940 and 6·59 per cent. in 1939.

Analysis of the causes of death in 76 cases showed that 66 were due to circulatory collapse, 2 to cardiac and respiratory failure due to œdema of larynx, 4 to diphtheritic broncho-pneumonia, 2 to respiratory paralysis, 1 to nasal diphtheria and marasmus, and 1 to nasal diphtheria and whooping cough.

Post diphtheritic paralysis occurred as follows: 209 palatal, 10 facial, 28 ciliary, 12 oculomotor, 14 pharyngeal, 43 neck, 4 diaphragmatic and 85 legs.

### **Laryngeal Diphtheria**

Fifty-two cases of diphtheria had some laryngeal involvement. Twenty-seven of these required operative interference for relief of obstruction. In six cases intubation alone was successful. Five cases had tracheotomy successfully performed when intubation had not given relief. Tracheotomy alone was successful in a further 6 cases. Of the remaining 10 cases 9 had no relief from tracheotomy or intubation, and the remaining one died.

### **Measles**

927 patients were admitted with a notified diagnosis of measles, and of these 77 required revision of diagnosis, of whom 23 were found to be suffering from rubella and in 12 cases no evidence of any disease could be found. Two of these cases died: 1 from meningococcal meningitis and 1 from broncho-pneumonia and gastro-enteritis.

Actually 897 cases of measles were treated in the hospital, including 47 notified as suffering from other conditions.

Concurrent infections occurred in 50 cases.

The principal complications were 94 broncho-pneumonia, 29 laryngitis, 50 otitis, 15 enteritis, 1 encephalitis, 24 gastro-enteritis, 2 marasmus, 15 conjunctivitis, 17 faucial diphtheria, and 1 whooping cough and laryngeal diphtheria.

Thirty-three deaths occurred with complications as follow: 19 broncho-pneumonia, 3 laryngitis, 1 encephalitis, 5 gastro-enteritis, 2 marasmus, 2 faucial diphtheria, and 1 whooping cough and laryngeal diphtheria.

The hospital mortality was 3.67 per cent.

### **Mumps**

Thirty-five cases were admitted with a notified diagnosis of mumps and of these 11 required revision of diagnosis as follows: 1 acute nephritis, 1 pre-auricular adenitis, 1 bronchitis, 3 otorrhœa with cervical adenitis, 1 acute lymphatic leukæmia, 4 cervical adenitis. One case of mumps had concurrent measles. All recovered.

### **Pemphigus**

Five cases of pemphigus were notified. The diagnosis in each case was confirmed and all recovered.

### **Bronchitis**

One case was notified as bronchitis contact diphtheria. Actually the patient was found to be suffering from bronchitis and mild nasal diphtheria. Recovery was uneventful.

### **Chicken-pox**

Sixty-two cases were admitted with a notified diagnosis of chicken-pox. Of these, 4 required revision of diagnosis.

Actually 62 cases of chicken-pox were treated in the hospital, including 2 notified as measles and 2 as miscellaneous observation.

One death occurred in a chicken-pox patient who died from secondary hæmorrhage following tonsillectomy in another hospital.

### **Dysentery**

Forty-four cases were admitted with a notified diagnosis of dysentery, and of these 14 required revision of diagnosis, 4 enteritis, 3 gastro-enteritis, 1 rickets, 5 no evidence of any disease, and 1 pulmonary tuberculosis.

Actually 37 cases of dysentery were treated in the wards, including 1 notified as scarlet fever, 1 miscellaneous observation, 3 enteric, 1 whooping cough and 1 enteritis. In 18 cases the causative organism was *B. dysentery* Sonne, in 5 *B. dysentery* Flexner, and 14 *B. Morgan* No. 1. There were no deaths due to dysentery.

### **Encephalitis Lethargica**

Three cases were admitted as encephalitis and all required revision of diagnosis.

### **Enteritis**

There were 3 cases admitted with a notified diagnosis of enteritis and all required a revision of diagnosis.

### **Enteric Fever**

One hundred and forty-one cases were admitted with a notified diagnosis of enteric fever and of these 51 required revision of diagnosis. Actually, 97 cases of enteric were treated in the wards, including 1 paratyphoid B. fever notified as whooping cough, 1 paratyphoid B. fever notified as encephalitis, 1 paratyphoid B. fever notified as measles, 2 paratyphoid B. fevers notified for observation, and 2 typhoid fevers notified for observation.

Of the 97 cases of enteric, 3 were caused by the bacillus typhosus, and in the remaining 94 the bacillus paratyphosis B. was responsible. There were no deaths due to enteric fever.

## **Erysipelas**

There were 94 cases notified as erysipelas admitted to the hospital. Of these, 6 required revision of diagnosis. Actually, 89 cases of erysipelas were treated, including 1 notified as measles.

There were 2 deaths from erysipelas—1 in a female of 67 who developed cerebral thrombosis following facial erysipelas, and the second a female child of nine months who had broncho-pneumonia complicating erysipelas.

The hospital mortality was 2.25 per cent.

## **Influenza**

One case was admitted with a notified diagnosis of influenza. The diagnosis was revised to febrile catarrh and the patient made a quick recovery.

There were 39 cases of influenza treated in the wards. These were notified as a variety of conditions and all recovered.

## **Cerebro-Spinal Meningitis**

Two hundred and twenty-five cases were admitted with a notified diagnosis of cerebro-spinal meningitis, and 96 of these required revision of diagnosis as follows :

Eight lobar pneumonia, 10 no evidence of any disease, 1 paranoia, 16 influenza, 2 typhoid fever, 8 tuberculous meningitis, 8 migraine, 1 encephalitis and broncho-pneumonia, 1 erythema multiforme, 1 trichiniasis, 2 gastro-enteritis, 1 sinusitis, 4 bronchitis, 2 pneumococcal meningitis, 1 measles, 1 concussion, 1 sunstroke, 1 pulmonary tuberculosis, 3 otitis, 2 paratyphoid fever, 2 subarachnoid hæmorrhage, 1 dental abscess, 3 constipation, 1 osteomyelitis, 2 septicæmia, 1 subdural abscess, 5 tonsillitis, and 7 broncho-pneumonia.

Actually 133 cases of cerebro-spinal meningitis were treated in the wards, including 4 notified as suffering from other conditions.

Concurrent infections occurred in 4 cases.

The principal complications were as follow: 6 nerve deafness, 1 squint, 1 ptosis, 1 paresis of leg, 1 facial paralysis, and 1 third and seventh nerve paralysis.

The hospital mortality was 23.31 per cent.

## **Pneumonia**

Ten cases were admitted with a notified diagnosis of pneumonia, and of these 8 required revision of diagnosis, 1 to measles who developed faucial and laryngeal diphtheria, 3 to whooping cough and broncho-pneumonia, 1 to measles and broncho-pneumonia, 2 to measles and 1 to bronchitis. Three of the patients with a revised diagnosis died.

### **Puerperal Fever**

Thirty-two cases were admitted with a notified diagnosis of puerperal fever and of these 3 required revision of diagnosis, 2 to breast abscess and 1 to phlegmasia alba dolens.

One case of puerperal fever died. Post mortem examination revealed pulmonary embolism as the cause of death.

### **Poliomyelitis**

There were 2 cases admitted with the above diagnosis and both required revision—1 to lobar pneumonia and 1 to broncho-pneumonia. The latter patient died.

### **Rubella**

Fifty-seven cases were admitted with a notified diagnosis of rubella and 20 of these required revision of diagnosis as follows: 14 measles, 3 simple scarlet fever, 1 acute rheumatism, 2 allergic urticaria.

Actually 64 cases of rubella were treated in the wards, including 2 notified as scarlet fever, 23 measles, 2 miscellaneous observation.

### **Whooping Cough**

In all there were 591 cases notified as suffering from whooping cough, and of these 87 required revision of diagnosis. Of these there were 4 deaths, 2 broncho-pneumonia, 1 measles and broncho-pneumonia, and 1 broncho-pneumonia and convulsions. Actually 515 cases of true whooping cough were treated in the wards.

Concurrent infections occurred in 65 cases, including 36 who suffered from measles as well as whooping cough.

The principal complications were 190 broncho-pneumonia, 18 gastro-enteritis, 26 bronchitis, 22 otitis, 7 convulsions, 7 enteritis, 1 tuberculous meningitis.

Sixty-seven deaths occurred amongst the whooping cough patients, the cause of death being 49 broncho-pneumonia, 11 gastro-enteritis, 5 convulsions, 1 enteritis, and 1 tuberculous meningitis.

The hospital mortality was 13.09 per cent.

### **Miscellaneous Observations**

One hundred and seventy-eight cases were admitted for observation, and of these 13 were found to be suffering from infectious diseases as follow: 3 diphtheria, 1 dysentery, 2 measles, 2 chicken-pox, 1 whooping cough, 2 rubella, and 2 scarlet fever.

The remaining 165 patients, in part suffering from a variety of conditions, included also 34 babies accompanying their mothers and 1 baby born in the hospital.

## Operations

The following operations were performed in the hospital: 7 mastoidectomies, 3 breast abscesses, 1 amputation of leg, 1 tonsillectomy, 1 excision of prepatellar bursa, 1 herniotomy, 1 excision of lipoma, 13 various incisions, 5 suturings, and 1 hysterectomy.

## Laboratory

The following table contains a summary of the work conducted in the hospital laboratory during 1941:

Swabs examined for diphtheria (positive) .. ..	1,735
Swabs examined for diphtheria (negative) .. ..	3,731
Swabs examined for streptococci (hæmolytic) .. ..	122
Swabs examined for streptococci (non-hæmolytic) .. ..	98
Swabs examined for streptococci (present, not classified)	107
Swabs examined for streptococci (no streptococci present) .. .. .	124
Swabs examined for Vincent's angina (positive) .. ..	9
Swabs examined for Vincent's angina (negative) .. ..	21
Blood for typhoid fever test .. .. .	174
Blood for bacteriological examination .. .. .	50
Blood for cytological examination .. .. .	74
Cerebro-spinal fluid for bacteriological examination .. ..	458
Cerebro-spinal fluid for chemical examination .. ..	1,835
Fæces for bacteriological examination .. .. .	647
Urine for bacteriological examination .. .. .	392
Urine for chemical examination .. .. .	709
Miscellaneous bacteriological examinations .. .. .	70
TOTAL .. .. .	10,356

## Staff Prophylaxis

The immunisation of the nurses was carried out as usual, and they were all inoculated against the enteric group of infections.

## Sickness Amongst the Staff During 1941

There was no undue sickness amongst the nursing staff. There were 3 mild cases of faucial diphtheria.

## PREVENTION OF BLINDNESS

### *General Outline of Facilities Available in the City*

Except for the provision of a war bonus, the arrangements continue substantially on the lines and over the same range of services as immediately before the war.

The number of Birmingham residents on the blind register at the end of 1941 was 640 males and 694 females, a total of 1,334.



# REPORT ON TUBERCULOSIS

1941

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. In normal times it provides 611 beds for the treatment of pulmonary and other forms of tuberculosis, and for the observation and investigation of suspected cases of this disease. To-day, as a result of enemy action, and the shortage of nurses, the number of beds available is 470.

The Anti-Tuberculosis Centre, situated centrally in the City, is open for five days during the week, and on Saturdays for half the day. A small number of sessions is reserved for patients attending for treatment, supervision and observation, but most of the sessions are set apart for consultations and examinations. Many consultations and examinations are undertaken at the homes of patients by members of the medical staff. The medical staff of the Tuberculosis Section of the Public Health Department, until the outbreak of the war, consisted of eleven medical men, and, with one exception, the staff is also responsible for the medical work of the various municipal sanatoria. To-day the total medical staff is eight.

The treatment undertaken in the different sanatoria includes lung collapse by means of artificial pneumothorax, the use of gold salts, vaccines, etc. In a limited number of cases different forms of surgical treatment for patients suffering from pulmonary tuberculosis have been undertaken, such as thoracoplasty, and severance of adhesions in cases of artificial pneumothorax, etc.

During the year under review, owing to war conditions, and the shortage of nurses and the diminution in the number of beds, our operative work suffered some curtailment, nine operations only being undertaken in the theatre at Yardley Green Road Sanatorium.

At the Yardley Green Road Sanatorium, which is situated  $3\frac{1}{2}$  miles from the centre of the City, 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 one 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, and there are occupational therapy shops,

a school, and three recreation halls, a department for X-ray work, a section for artificial light treatment, and artificial pneumothorax work, which is used both for in-patients and out-patients, and there is also a surgical block, including a theatre.

The clinical blocks at West Heath Sanatorium, situated eight miles from the centre of the City, normally accommodate 120 patients, but additional beds are now available. It includes one pavilion for males and four for females. In addition there is a rest room for female patients, a laboratory, and an occupational therapy shop.

Romsley Hill Sanatorium, situated twelve miles from the centre of the City, is a two-storey building providing accommodation for 120 patients. It includes a number of cubicles for one, two, three, four and six beds, and there are wards for ten and eleven beds. It provides two recreation rooms, one for men and one for women, and has occupational therapy shops and a laboratory. Seventeen beds are rented to Smethwick, nine to West Bromwich, and six to Worcestershire.

Salterley Grange Sanatorium, equipped for sixty-eight patients of both sexes, is situated in the Cotswolds, forty miles from the centre of the City. It includes a large administrative block containing residential quarters for the staff and, in addition, a kitchen, stores, and a 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 admitted to the City Sanatoria, during the year there were eleven male adults, seven female adults, and thirteen children suffering from the non-pulmonary forms of tuberculosis, who were admitted to various hospitals, including the Royal Cripples' Hospital, 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 938. The personal consultations between members of the medical staff and practitioners in the City during the year numbered 206 ; in addition, there were 7,176 other consultations with medical practitioners during the year.

Many persons attended at the City Sanatorium, Yardley Green Road, as out-patients for artificial light treatment and artificial pneumothorax treatment. During the year under review the number of attendances for this purpose was 6,063.

Admissions to the sanatoria are decided upon only after examination at the Centre, or at the patients' homes, and the sanatorium to which 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 thirty-six beds at Yardley Green Road Sanatorium for the purpose of observation and investigation ; ten are reserved for boys, ten for adult males, eight for adult females, and eight are used 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 on humanitarian grounds, and, in addition, are a prophylactic asset in connection with the public health of the City. For this reason it is desirable that as large a percentage as possible of the deaths occurring in the City from tuberculosis should take place in beds controlled by the Public Health Department.

During the period under review there was a death-rate of 0.90 per 1,000 of the population from all forms of tuberculosis. Of these deaths no less than 53 per cent. occurred in the municipal sanatoria and hospitals controlled by the Public Health Committee.

The notified cases of tuberculosis show a slight increase of twenty-four during the year 1941. Amongst the cases of tuberculosis notified during the past year, twenty-one had resided in the City for less than one year, suggesting that they may have come to reside here from other districts already suffering from the disease.

The case-rates and death-rates for past years are shown in the following table :

#### TUBERCULOSIS (ALL FORMS)

					<i>New Cases :</i> <i>Rate per</i> <i>1,000</i> <i>population.</i>	<i>Death-rate</i> <i>per 1,000</i> <i>population.</i>
1901-1910 (average)	..	..	..	..	—	1.65
1911-1920	..	..	..	..	3.73	1.46
1921-1930	..	..	..	..	1.92	1.08
1931-1935	..	..	..	..	1.43	0.91
1936	..	..	..	..	1.10	0.78
1937	..	..	..	..	1.07	0.80
1938	..	..	..	..	1.15	0.78
1939	..	..	..	..	0.98	0.84
1940	..	..	..	..	1.03	0.84
1941	..	..	..	..	1.13	0.90

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

#### PULMONARY TUBERCULOSIS

				<i>New Cases :</i>	
				<i>Rate per</i>	<i>Death-rate</i>
				<i>1,000</i>	<i>per 1,000</i>
				<i>population.</i>	<i>population.</i>
1901-1910 (average)	..	..	..	—	1.25
1911-1920	..	..	..	3.27	1.20
1921-1930	..	..	..	1.61	0.94
1931-1935	..	..	..	1.20	0.80
1936	..	..	..	0.93	0.71
1937	..	..	..	0.93	0.72
1938	..	..	..	0.96	0.70
1939	..	..	..	0.82	0.77
1940	..	..	..	0.88	0.77
1941	..	..	..	0.97	0.81

#### NON-PULMONARY TUBERCULOSIS

				<i>New Cases :</i>	
				<i>Rate per</i>	<i>Death-rate</i>
				<i>1,000</i>	<i>per 1,000</i>
				<i>population.</i>	<i>population.</i>
1901-1910 (average)	..	..	..	—	0.40
1911-1920	..	..	..	0.45	0.26
1921-1930	..	..	..	0.31	0.14
1931-1935	..	..	..	0.23	0.10
1936	..	..	..	0.17	0.07
1937	..	..	..	0.15	0.08
1938	..	..	..	0.19	0.08
1939	..	..	..	0.16	0.07
1940	..	..	..	0.15	0.07
1941	..	..	..	0.16	0.09

#### Work of the Tuberculosis Visitors

In normal times there are ten nurses engaged as Tuberculosis Visitors in the Department, each having charge of a definite area of the City for purposes relating to tuberculosis. At the present time we have nine Tuberculosis Visitors only, and owing to the shortage of nurses in the sanatorium some of them give occasional help to the nursing staff at Yardley Green Road Sanatorium. It is the duty of these visitors to make contact with every notified case of tuberculosis in the City, and afterwards to keep in touch by subsequent visiting. They are also responsible for any care and after-care work that may be needed, and for seeing that home contacts are examined and kept under supervision.

At the end of 1941 there were 4,700 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) .. .. .	1,275
Routine re-visits .. .. .	14,606
Special visits and re-visits .. .. .	7,091

At the first visit to new cases it was found that 507 patients out of 1,275 were sharing a bed with some other person, while 281 shared a bedroom, but had a separate bed. Efforts are always made to secure 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 Department for special treatment, if considered advisable by the medical staff.

### **Action under Legal Enactments**

It was unnecessary during the year to take action under the Public Health (Prevention of Tuberculosis) Regulations, 1925, relating to tuberculous employees in the milk trade, nor was Section 172 of the Public Health Act, 1936, employed to remove any patient, compulsorily, to a sanatorium.

### **Disinfection**

During the year the disinfection was undertaken of 1,409 houses in which some member of the family had suffered, or died, from tuberculosis, or where a patient had changed his or her address.

### **Care Work**

A considerable amount of care work is undertaken from the Centre in Great Charles Street, and its scope is varied.

During the year 1941 the tuberculosis health visitors made 22,972 visits (exclusive of useless calls) to the homes of patients, and care work was responsible for many of them. In addition, 938 visits were made to the houses of patients by members of the medical staff, many of them for a similar purpose.

In the same period forty-three persons received bed and bedding on loan or hire purchase from the Department ; three sleeping chalets were also loaned to patients. Opportunity for the use of these chalets is largely governed by the fitness of the patient to sleep or rest for prolonged periods out of doors unattended, and by the existence of a suitable site. Beds, bedding and sleeping chalets are loaned in order to provide more

suitable accommodation for the patient and to lessen as far as possible the risk of infection to other members of the family.

Through the representations of the Care Department to the Estates Department we obtained better housing conditions, or promises of the same, for the families of seven of our patients. Grants of clothing and other personal items were made to patients in some ninety instances. Also a large number of recommendations for relief and assistance were made to various charitable organisations both within and without the City.

The Care Department has been instrumental in assisting our patients and their families to obtain suitable medical treatment for ailments other than tuberculosis, and grants of food have been made to fifty-four persons.

In addition to the activities already outlined the Department has helped patients to obtain dentures, air-rings, and other nursing utensils, surgical appliances and splints, and has assisted in some instances in the provision of meals. It has obtained money to pay bus and tram fares to enable patients to attend for treatment and examination.

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

The tuberculous individual is a damaged life, and however good the results of treatment may have been the sufferer can seldom be regarded as having a 100 per cent. economic value to the community. Unfortunately, industrial conditions present few openings for the partially disabled tuberculous person, a number of whom are able to work four or six hours daily in suitable environment, at their own pace. To help this type of patient workshops are provided at Yardley Green Road Sanatorium, where ex-patients attend and work under medical supervision in hygienic surroundings for a limited number of hours daily. As a result of this an appreciable sum of money derived from the sale of their work is paid out weekly.

### **Anti-Tuberculosis Centre**

#### **Attendances for Examination**

The total number of attendances at the Anti-Tuberculosis Centre during the year 1941 made by patients for the purpose of diagnosis, consultation, observation, advice and treatment was 25,141, including 6,063 out-patient attendances at Yardley Green Road Sanatorium.

The total is made up of 3,175 attendances for supervision, observation, and advice, 8,942 attendances for examination, 9,427 attendances for X-ray examination, and 3,597 attendances in the artificial light

departments. The X-ray work included 6,657 screen examinations and 1,515 films. In addition there were 700 screen examinations and 555 films taken at Yardley Green Road Sanatorium.

Attendances for supervision, observation and treatment	701
Attendances for consultations and examination	.. 8,942
Attendances for light treatment :	
Yardley Green Road Sanatorium .. .. .	2,701
151, Great Charles Street .. .. .	896
X-ray examinations (screens) .. .. .	7,357
X-ray examinations (films) .. .. .	2,070
A.P. refill attendances .. .. .	2,474
<b>TOTAL</b> .. .. .	<b>25,141</b>

Of the total number of new cases of pulmonary tuberculosis notified, 94·8 per cent. were examined at the Centre, while of the cases of non-pulmonary tuberculosis notified during the present year, 47 per cent. were examined at the Centre.

The number of patients on the Dispensary Register on 1st January was 4,683 ; the number of persons transferred to other areas during the year and the cases " lost sight of " numbered 475 ; the number transferred to us from other areas and the " lost sight of " cases returned was 188.

At the end of the year 828 insured persons were receiving domiciliary treatment at the recommendation of the tuberculosis officers.

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

	<i>First Examinations.</i>			<i>Re-examinations.</i>	
	<i>Notified Cases.</i>	<i>Contacts.</i>	<i>Suspects.</i>	<i>Old Cases.</i>	<i>Contacts or Suspects.</i>
Sanatorium treatment .. .. .	415	40	279	288	1
Dispensary treatment .. .. .	2	1	—	14	—
Supervision .. .. .	24	1	14	644	2
Out-patient light treatment .. .. .	10	—	7	23	—
Domiciliary treatment .. .. .	94	3	53	1,225	1
No treatment required .. .. .	133	816	2,031	1,279	453
<b>TOTALS</b> .. .. .	<b>678</b>	<b>861</b>	<b>2,384</b>	<b>3,473</b>	<b>457</b>

The table above shows that a large percentage of new attenders at the Centre 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.

In the succeeding table are set out briefly some details of those who

were referred to us as 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.

#### SUSPECTS EXAMINED DURING THE YEAR 1941

Definitely tuberculous .. .. .	353
No signs of tuberculosis .. .. .	2,031
<b>TOTAL .. .. .</b>	<b>2,384</b>

### Contacts

Eight hundred and sixty-one contacts were examined during the year under review; 195 were under five years of age, and of these 12, or 6.1 per cent., were found to be suffering from tuberculosis. Eight were home contacts to patients whose sputum contained tubercle bacilli, and 4 were contacts to cases with a negative sputum.

Between the ages six to ten years, 129 children were examined, and 1, or .7 per cent., was found to be suffering from tuberculosis; this one was contact to a patient suffering from pulmonary tuberculosis with a positive sputum.

In the age period eleven to fifteen years, 133 contacts were examined and 3, or 2.2 per cent., were found to be suffering from tuberculosis, 2 of which were home contacts to patients with a positive sputum.

Over the age of sixteen years, 404 home contacts were examined, 29, or 7.1 per cent., were found to be suffering from tuberculosis, and 23 of them were contacts to positive sputum cases of pulmonary tuberculosis.

The total number of home contacts examined during the year was considerably less than in previous years, which is due to the conditions prevailing as a result of the war.

### Tuberculin Tests

During the year 676 patients were tested with tuberculin, the Mantoux method being used, and in a large majority of cases the test was commenced with an injection of 0.1 m.g. O.T.

The investigation of contacts at the clinic has included a careful physical and radioscopic examination, followed in many instances by an X-ray film. Frequently a few weeks spent in an observation bed at the sanatorium have also been devoted to investigation. An intradermal tuberculin test is applied to practically all children under ten years of age examined as contacts, and to older patients when necessary.



### **Fæces Examined**

If patients in the sanatorium, either for treatment or diagnosis, could produce no sputum, or where sputum was persistently negative for tubercle bacilli, fæces were examined for acid and alcohol fast bacilli.

Sputum was examined at frequent intervals by a variety of methods, including those of Ellerman and Erlandsen, and Lowenstein-Jansen. In no instances were fæces examined before the patient had been in the sanatorium for at least one week, during which only pasteurised milk was consumed.

### **Gastric Lavages**

Sputum for examination is not always easy to obtain from children under ten years of age, as they rarely expectorate. To meet this difficulty the contents of a stomach lavage, taken first thing in the morning, from a fasting stomach, were investigated for acid fast bacilli in a number of instances; whether or not these bacilli were found on smear examination alone some of the centrifuged deposit was injected into a guinea pig.

Examination of gastric lavages has been undertaken recently in connection with 34 child patients whose original lavage findings at some time during the past eleven years were positive for tubercle bacilli. In twenty-seven instances the result was negative, in only seven cases was a positive finding persistent.

### **“Contacts,” “Suspects,” and “Notified Cases.”**

During the year under review the number of contacts examined was necessarily smaller than in previous years, from the fact that many children have been evacuated from the City, and a number of adults have left the City, while others find it difficult to attend for examination owing to their hours of work and A.R.P. conditions.

The work of the Tuberculosis Dispensary 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 304 notifications of tuberculosis were received from the municipal and public assistance hospitals, having an aggregate of 4,412 beds. Of these patients, 87 were acutely ill, and could not be examined for a variety of reasons; 195 were examined, and of this number 29 refused treatment, and 131 were admitted to sanatoria.

## **Artificial Pneumothorax**

The following account deals with 237 patients suffering from pulmonary tuberculosis who had been treated by means of artificial pneumothorax, in whom the treatment had been discontinued for a period of not less than three years. Fourteen were classified as Group I, 10 having a positive sputum for tubercle bacilli, the remaining 4 being negative. At the completion of treatment 7 of the positive patients had lost their bacilli and 8 were fit for work. Dissolution has since occurred in 5 of the patients.

One hundred and ninety-three were originally classified as Group II patients, in 180 of which the sputum was positive for tubercle bacilli; in 13 the sputum was negative. In 85 of the 180 patients with a positive sputum, this was negative on completion of treatment. On the completion of treatment 106 patients were fit for work, 54 were unfit, and 33 totally incapacitated; 74 have since died.

Thirty patients were classified as Group III cases, of which 26 had a positive sputum, and in 4 the sputum was negative. On completion of treatment 10 were fit for work, 12 were unfit, and 8 were totally incapacitated; 15 of this group are known to be dead.

The average duration of treatment for all patients was 27·6 months.

## **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 352 extractions, 12 fillings, 2 scalings, and dentures were supplied in 15 instances.

## **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 the 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, 60·7 per cent. presented tubercle bacilli in their sputum. Amongst the total number of children primarily examined in whom a definite diagnosis of pulmonary tuberculosis was made, there were 40·8 per cent. who presented tubercle bacilli in their sputum, gastric contents, or faeces.

The difficulty of obtaining sputum from children, even when it exists, is recognised, so all children under ten years of age, whether admitted to sanatorium for observation or treatment, have the fæces and 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 their fæces examined for acid fast bacilli when sputum is persistently negative or cannot be procured. A blood sedimentation test is also undertaken periodically for those being treated by artificial pneumothorax.

At the Centre during the year 3,880 specimens of sputum were examined; at Yardley Green Road Sanatorium, 4,042 specimens of sputum were examined; Romsley Hill Sanatorium records that 1,660 specimens of sputum were examined; at West Heath Sanatorium, 975 specimens were examined; and at Salterley Grange Sanatorium 694 specimens of sputum were examined during the year.

### Completed Cases

During the year 2,451 patients completed a course of treatment or supervision, etc., at the Centre, of whom 2,160 were adults and 291 were children.

During the year under review 422 patients were examined and reported upon on behalf of the Recruiting Medical Boards. Of these 248 were new cases, 93 were cases already known to us, and 81 resided in areas outside the City.

### SUMMARY

(1) Not less than 94·8 per cent. of the total number notified in the City as suffering from pulmonary tuberculosis were examined at the Centre.

(2) The number of patients who were visited and examined in their own homes by the medical staff was 938.

(3) During the year 7,357 screen examinations were made in the radiological section, and films were taken in 2,070 instances.

(4) Amongst new patients suffering from pulmonary tuberculosis examined during the year, 60·7 per cent. of the adults presented tubercle bacilli in their sputum, and 40·8 per cent. of the children.

(5) Of the primary cases suffering from pulmonary tuberculosis examined during the year, 16 per cent. were classified as Group I; 36·8 per cent. were classified as Group II; and 39·7 per cent. as Group III; 7·5 per cent. were classified as Group IV or non-pulmonary.

## **Sanatoria**

### *Total numbers treated in Sanatoria and duration of stay*

During the year 1941 there were 1,249 patients discharged from all the sanatoria. Included in this number are 39 patients suffering from non-pulmonary tuberculosis who were treated in institutions subsidised by the Public Health Department. Of the 1,249 patients, 692 were adult males, 431 were adult females, and 126 were children.

The average duration of stay was 135 days for adult males, 141 for adult females, 280 days for male children, and 318 days for female children, 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.

### **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 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. At Romsley Hill Sanatorium patients are also 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.

The children attending the Sanatorium School at Yardley Green Road Sanatorium are taught various forms of handicraft, including leather and 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 provided for suitable children, whether ambulant or immobilised; three school teachers are employed.

### *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 four to six weeks. Of the 1,203 patients discharged from the

sanatoria 112, or 9·3 per cent., were admitted primarily for observation to Yardley Green Road Sanatorium.

### **Sputum Results after Sanatorium Treatment**

Of the 1,026 adult patients discharged from the sanatoria suffering from pulmonary tuberculosis during the year, 851, or 82·9 per cent., presented tubercle bacilli in their sputum whilst in sanatoria.

### **Gain or Loss in Weight**

Amongst a total of 1,203 patients discharged from sanatoria after treatment, many of whom were advanced hospital cases admitted for the purpose of prophylaxis, 116, or 9·6 per cent., remained stationary, and 930, or 77·3 per cent., gained weight in amounts varying from 1-lb. to 40-lbs.

### **SUMMARY**

(1) The average duration of patients' stay for all sanatoria was 135 days for adult males, 141 days for adult females, 280 days for male children, and 318 days for female children.

(2) Of the patients from all sanatoria no less than 9·3 per cent. passed through the observation beds at Yardley Green Road Sanatorium.

(3) 10·5 per cent. of the patients were in Group I; 34·5 per cent. were in Group II; 50·3 per cent. were in Group III; and 4·7 per cent. were in Group IV.

(4) There were 82·9 per cent. of all patients discharged from sanatoria who presented tubercle bacilli in their sputum whilst in sanatorium.

(5) Nine hundred and thirty, or 77·3 per cent., of all patients discharged from sanatoria gained weight in amounts varying from 1-lb. to 40-lbs.

(6) 53 per cent. of the deaths from tuberculosis occurred in "hospital" beds in the various sanatoria and in the hospitals controlled by the Public Health Committee.

### **Treatment in Light Clinic**

#### *Patients completing treatment during 1941*

The total number of patients completing a satisfactory course of treatment during the year 1941 was 47.

The number includes 15 adult males, 15 adult females, 8 male children, and 9 female children.

### **Patients Continuing Treatment**

On the 31st December, 1941, 35 patients were continuing treatment in the light clinic and many showed improvement in their condition.

## VENEREAL DISEASES

The records of the City Clinics show that the war circumstances had begun, towards the end of the year, to be reflected in an increase in the number of fresh cases of venereal disease. Thus the number of new cases of syphilis seen in 1940 was 318, rising to 343 in 1941; and the number of new cases of gonorrhœa similarly rose from 835 in 1940 to 940 in 1941. This increase, comparatively moderate in itself, became more marked in the early months of 1942.

	<i>New Cases.</i>			
	<i>Syphilis.</i>	<i>Soft Chancre.</i>	<i>Gonorrhœa.</i>	<i>Other Conditions.</i>
General Hospital ..	279	4	893	1,272
Children's Hospital ..	8	—	3	30
Lancaster Street ..	46	—	33	942
Birmingham Infirmary	10	—	11	17
TOTAL .. ..	343	4	940	2,261

The following table gives the corresponding data over a period of ten years :

	<i>Syphilis.</i>	<i>Soft Chancre.</i>	<i>Gonorrhœa.</i>	<i>Other Conditions.</i>
1932 .. .. .	512	10	1,066	1,109
1933 .. .. .	454	19	944	1,248
1934 .. .. .	*511	*25	*998	*1,425
1935 .. .. .	428	20	882	1,887
1936 .. .. .	353	7	971	1,988
1937 .. .. .	326	1	1,011	2,233
1938 .. .. .	346	—	955	2,423
1939 .. .. .	330	1	948	2,282
1940 .. .. .	318	1	835	1,957
1941 .. .. .	343	4	940	2,261

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

The total attendances are indicated below; and it must be remembered that the need for repeated attendance for irrigation has been radically altered during recent years by the discovery of the remarkable effect of the sulphonamide drugs on gonorrhœa :

1932 .. .. .	100,313	1937 .. .. .	125,408
1933 .. .. .	103,925	1938 .. .. .	131,611
1934 .. .. .	*110,716	1939 .. .. .	88,083
1935 .. .. .	121,788	1940 .. .. .	75,936
1936 .. .. .	124,387	1941 .. .. .	73,175

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

Further particulars of the work done at the Centres in 1941 are as follows :

	<i>Syphilis.</i>	<i>Soft Chancre.</i>	<i>Gonorrhœa.</i>	<i>Other Conditions.</i>
No. of cases under treatment				
January 1st, 1941 .. ..	1,028	1	572	340
New cases under treatment				
during year .. ..	343	4	940	2,261
Total attendances .. ..	22,704	19	21,775	28,677
No. discharged after completion of treatment and observation .. ..	120	—	431	2,053
No. transferred to other centres .. ..	128	—	188	29
No. who ceased to attend :				
Before completion of treatment .. ..	192	—	152	—
After completion of treatment but before final tests as to cure..	56	—	136	8
No. of cases of congenital syphilis treated :				
Under 1 year of age .. ..				6
Aged 1-5 years .. ..				—
Aged 5-15 years .. ..				11
Aged 15 years and over .. ..				44
				—
TOTAL .. ..				61
				—

#### *Publicity and Educational Work*

The Birmingham Branch of the Social Hygiene Council—which in 1942 became the Birmingham Council for Social Health—continued its most valuable educational work towards the establishment among the public of a right standard, a responsible and self-controlled outlook, and a sound knowledge in matters of sex.

During the year its lecturers addressed 21,368 persons in groups, 246 lectures were given to young people, while a large amount of personal advice to individuals was given by its officers. There was an increase in the number of people of both sexes requiring advice covering venereal disease, the majority being workers transferred to this City for the war effort. In addition, thirteen courses of publicly advertised lectures for men and for women were given, whilst a large number of lectures were given to both male and female members of H.M. Forces. A considerable and varied supply of pamphlets appropriate to the needs of audiences and of individuals has been collated by the Council.

YEAR	Population Estimated to middle of each year.	Birth-rate.	Death-rate.	Infant Mortality rate per 1,000 Births.	Enteric Fever.	Small Pox.	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, Malformations, Birth, etc. (under 1).	Diarrhea and Enteritis (under 2).	Puerperal Fever.	Other Accidents of Child Birth.	
												Respiratory.	Other Forms.													
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	1.36	1.33	2.68	1.68	?	?	.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	1.37	1.53	2.48	1.68	?	?	.05	.45	?	?	1.17	2.63
1904	784,532	31.0	17.7	179	.10	—	.31	.11	.21	.13	.13	1.30	.45	.74	1.35	1.74	2.69	1.49	?	?	.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	1.36	1.60	2.82	1.31	?	?	.10	.44	?	?	1.31	2.22
Average	800,631	<b>30.7</b>	<b>16.5</b>	<b>157</b>	<b>.12</b>	<b>.01</b>	<b>.36</b>	<b>.22</b>	<b>.41</b>	<b>.20</b>	<b>.13</b>	<b>1.34</b>	<b>.45</b>	<b>.74</b>	<b>1.36</b>	<b>1.60</b>	<b>2.64</b>	<b>1.36</b>	?	?	<b>.10</b>	<b>.45</b>	?	?	<b>1.32</b>	<b>2.31</b>
1906	800,631	29.4	15.9	157	.07	—	.34	.09	.44	.17	.15	1.14	.37	.83	1.36	1.60	2.60	1.07	?	?	.09	.44	?	?	1.51	1.85
1907	808,803	28.8	15.3	133	.09	—	.51	.15	.30	.20	.16	1.11	.43	.80	1.29	1.88	2.10	.88	?	?	.09	.47	?	?	0.50	2.29
1908	817,060	29.1	15.3	130	.07	—	.08	.15	.49	.20	.31	1.24	.35	.85	1.36	1.60	2.60	.88	?	?	.10	.44	?	?	1.02	1.85
1909	825,400	27.4	15.1	121	.04	—	.82	.18	.23	.20	.18	1.22	.30	.82	1.35	1.74	2.69	1.49	?	?	.10	.41	?	?	1.48	2.11
1910	833,826	26.8	13.2	115	.04	—	.05	.14	.34	.13	.11	1.08	.32	.89	1.36	1.60	2.64	1.31	?	?	.11	.45	?	?	1.12	2.16
Average	842,337	<b>28.3</b>	<b>15.0</b>	<b>131</b>	<b>.06</b>	<b>.00</b>	<b>.36</b>	<b>.14</b>	<b>.36</b>	<b>.18</b>	<b>.18</b>	<b>1.16</b>	<b>.35</b>	<b>.84</b>	<b>1.36</b>	<b>1.60</b>	<b>2.64</b>	<b>1.36</b>	?	?	<b>.10</b>	<b>.44</b>	?	?	<b>1.12</b>	<b>2.16</b>
1911	842,337	26.1	15.0	150	.04	.00	.47	.10	.17	.13	.09	1.14	.32	.89	1.36	1.60	2.60	.88	?	?	.12	.41	?	?	1.64	2.18
1912	850,947	26.1	14.1	111	.02	—	.67	.18	.39	.12	.12	1.28	.24	.93	1.37	1.53	2.48	1.68	?	?	.07	.45	?	?	1.22	2.03
1913	859,644	27.3	14.9	129	.04	—	.46	.20	.19	.19	.13	1.19	.34	1.02	1.36	1.60	2.60	.88	?	?	.11	.45	?	?	1.85	2.01
1914	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	?	?	.05	.43	?	?	1.42	1.77
1915	891,234	23.8	14.4	118	.01	—	.48	.07	.14	.15	.16	1.28	.27	1.00	1.36	1.60	2.64	1.31	?	?	.05	.45	?	?	1.65	1.79
Average	895,678	<b>25.9</b>	<b>14.6</b>	<b>126</b>	<b>.03</b>	<b>.00</b>	<b>.48</b>	<b>.14</b>	<b>.25</b>	<b>.18</b>	<b>.13</b>	<b>1.22</b>	<b>.29</b>	<b>.94</b>	<b>1.36</b>	<b>1.60</b>	<b>2.64</b>	<b>1.36</b>	?	?	<b>.09</b>	<b>.44</b>	?	?	<b>1.56</b>	<b>1.96</b>
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	?	?	.05	.45	?	?	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	1.76	2.10	.88	?	?	.06	.46	?	?	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	?	?	.07	.35	?	?	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	?	?	.11	.34	?	?	1.19	1.45
1920	910,000	27.6	12.6	83	.01	—	.16	.12	.23	.22	.46	.93	.17	1.12	1.06	1.72	2.46	.82	?	?	.11	.34	?	?	2.03	1.56
Average	910,000	<b>22.1</b>	<b>13.4</b>	<b>84</b>	<b>.01</b>	<b>.01</b>	<b>.18</b>	<b>.04</b>	<b>.23</b>	<b>.16</b>	<b>.88</b>	<b>1.18</b>	<b>.22</b>	<b>1.03</b>	<b>1.17</b>	<b>1.79</b>	<b>2.54</b>	<b>.88</b>	?	?	<b>.08</b>	<b>.36</b>	?	?	<b>1.58</b>	<b>1.48</b>
1921	919,683	24.1	11.3	83	.01	—	.17	.04	.10	.13	.15	.97	.16	1.12	1.06	1.72	2.46	.82	?	?	.11	.34	?	?	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	?	?	.12	.26	?	?	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	?	?	.14	.35	?	?	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	?	?	.11	.31	?	?	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	?	?	.11	.33	?	?	1.96	2.19
Average	952,766	<b>20.8</b>	<b>11.5</b>	<b>80</b>	<b>.00</b>	<b>.00</b>	<b>.13</b>	<b>.03</b>	<b>.19</b>	<b>.12</b>	<b>.34</b>	<b>.96</b>	<b>.15</b>	<b>1.21</b>	<b>1.00</b>	<b>1.85</b>	<b>2.10</b>	<b>.74</b>	?	?	<b>.11</b>	<b>.30</b>	?	?	<b>1.64</b>	<b>1.85</b>
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	?	?	.15	.36	?	?	2.29	1.84
1927	969,752	17.8	11.8	75	.00	—	.13	.01	.07	.08	.41	.89	.17	1.36	0.95	2.28	1.89	.70	?	?	.15	.36	?	?	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	?	?	.16	.40	?	?	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	?	?	.15	.42	?	?	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	?	?	.15	.40	?	?	1.55	1.84
Average	982,000	<b>17.8</b>	<b>11.6</b>	<b>70</b>	<b>.00</b>	<b>.00</b>	<b>.10</b>	<b>.01</b>	<b>.12</b>	<b>.09</b>	<b>.13</b>	<b>.91</b>	<b>.13</b>	<b>1.35</b>	<b>0.96</b>	<b>2.43</b>	<b>1.78</b>	<b>.69</b>	?	?	<b>.15</b>	<b>.38</b>	?	?	<b>1.74</b>	<b>2.05</b>
1931	1,001,300	16.9	11.7	71	.00	—	.18	.01	.09	.06	.27	.92	.14	1.46	0.77*	1.47	1.61	.62	?	?	.15	.38	?	?	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	?	?	.19	.35	?	?	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	?	?	.17	.39	?	?	1.66	2.06
1934	1,028,000	15.3	11.0	68	.01	—	.05	.01	.11	.08	.15	.71	.08	1.52	0.72*	3.14	1.09	.62	?	?	.16	.38	?	?	1.85	1.98
1935	1,033,000	15.4	10.9	64	.00	—	.05	.01	.06	.08	.15	.08	.10	1.46	0.76*	3.04	1.26	.67	?	?	.13	.40	?	?	1.45	2.07
Average	1,033,000	<b>15.7</b>	<b>11.2</b>	<b>67</b>	<b>.00</b>	<b>.00</b>	<b>.08</b>	<b>.01</b>	<b>.06</b>	<b>.06</b>	<b>.28</b>	<b>.60</b>	<b>.10</b>	<b>1.46</b>	<b>0.76*</b>	<b>2.95</b>	<b>1.35</b>	<b>.62</b>	?	?	<b>.16</b>	<b>.38</b>	?	?	<b>1.66</b>	<b>2.07</b>
1936	1,038,000	15.8	11.3	62	.00	—	.04	.01	.10	.06	.13	.71	.07	1.57	0.69*	3.43	1.22	.62	?	?	.12	.38	?	?	1.53	2.14
1937	1,043,000	16.3	11.7	60	.00	—	.07	.01	.03	.08	.40	.72	.08	1.62	0.73*	3.40	1.40	.56	?	?	.15	.39	?	?	0.77	2.30
1938	1,048,000	16.6	10.9	61	.00	—	.01	.01	.07	.07	.15	.70	.08	1.59	0.61*	3.45	1.18	.61	?	?	.16	.34	?	?	0.86	2.17
1939	1,048,000	16.6	11.4	60	.00	—	.02	.00	.05	.05	.16	.77	.07	1.55	0.67*	3.65	1.16	.45	?	?	.15	.36	?	?	1.72	1.63
1940	1,048,000	16.9	14.3	70	.00	—	.01	.01	.07	.05	.22	.77	.07	1.61	0.31*	3.31	2.21	.55	?	?	.14	.42	?	?	0.58	1.63
Average	1,048,000	<b>16.4</b>	<b>11.9</b>	<b>63</b>	<b>.00</b>	<b>.00</b>	<b>.03</b>	<b>.01</b>	<b>.06</b>	<b>.06</b>	<b>.21</b>	<b>.07</b>	<b>.07</b>	<b>1.59</b>	<b>0.80</b>	<b>3.45</b>	<b>1.43</b>	<b>.56</b>	?	?	<b>.14</b>	<b>.38</b>	?	?	<b>0.87</b>	<b>1.99</b>



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