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BOROUGH



OF LUTON.

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# ANNUAL REPORT

ON THE

## HEALTH, SANITARY CONDITIONS

ETC.,

### Of the Borough of Luton,

### FOR THE YEAR 1918,

BY

WILLIAM J. COX, M.B., Ch.B., D.P.H.,


*Acting Medical Officer of Health,*

*Acting Medical Officer to the Education Committee,*

*Acting Medical Superintendent of Infectious*

*Diseases and Small Pox Hospitals,*

*Acting Police Surgeon.*



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Public Health Department,  
Town Hall,  
Luton, 1919.

*To His Worship the Mayor, and the Aldermen and Councillors  
of the Borough of Luton.*

*Gentlemen,*

*I have the honour to submit to you my fourth Annual Report as Acting Medical Officer of Health, which is also the fortieth Annual Report on the Health Sanitary Conditions, &c., of the Borough.*

*Dr. Archibald, the Medical Officer of Health, who was called up for military service in August 1914 has now returned to his duties in this town.*

*Bearing in mind the need for economy in war time, the Report has been cut down as much as possible, some of the usual Tables being omitted (including Table ii.)*

*It gives me great pleasure to acknowledge the valuable assistance which I have received in carrying out my duties from the various members of the staff of the Health Department, who have rendered loyal and efficient service. I am also indebted to Mr. G. Wright the Sanitary Inspector for the figures concerning the details of Sanitary and Food Inspection.*

*I have the honour to be,*

*Gentlemen,*

*Your obedient servant,*

WILLIAM J. COX.

## SUMMARY OF VITAL STATISTICS, &c., 1918.

### POPULATION—

Estimates 1917, 60,853 (including military population);  
54,310 (civil population).

These are the estimates supplied by the Registrar General.

### BIRTHS—

Total registered, 1,000, including 74 illegitimates. Birth rate per 1,000 population, 16'4.

### NOTIFICATIONS—

Total received, 609, including

Measles ...	303	Ophthalmia Neonatorum	5
Diphtheria ...	100	Puerperal Fever ...	0
Scarlet Fever ...	27	Cerebro-Spinal Fever	3
Enteric Fever...	2	Acute Poliomyelitis	1
Erysipelas ...	6	Pulmonary Tuberculosis	129
Other forms of Tuberculosis ...		35	

### DEATHS—

Total uncorrected, 721 : rate, 13'2 per 1,000 living.

Total corrected, 728, rate, (standardised) 13'8 per 1,000 living.

Under 1 year of age, 87 ; rate, 87 per 1,000 births registered.

Causes of death, all ages, persons :—

	No.	Rate.
Measles ... ..	3	'05 per 1,000 living
Scarlet Fever ... ..	1	'01 "
Whooping Cough ... ..	3	'05 "
Diphtheria ... ..	10	'18 "
Infant Diarrhoea (under 2 years of age) ... ..	11	'2 "
Pulmonary Tuberculosis...	69	1'29 "
Tuberculosis (other forms)	14	'25 "
Cancer ... ..	46	'84 "
Respiratory Diseases {	40	'75 } Pneumonia
	48	'88 } Bronchitis
	4	'07 } Pleurisy
	6	'13 } Other diseases of Respiratory System
Organic Heart Disease ...	92	1'67, per 1000 living '79
Influenza ... ..	124	2'28 "
Total Zymotic Death Rate per 1,000 living, 2'8		

## SUMMARY OF VITAL STATISTICS, &c., 1917.

### POPULATION—

Estimates 1917, 60,426 (including military population);  
54,208 (civil population).

These are the estimates supplied by the Registrar General.

### BIRTHS—

Total registered, 1,017, including 77 illegitimates. Birth rate per 1,000 population, 16·7.

### NOTIFICATIONS—

Total received, 1,196, including

Measles ... ..	886	Ophthalmia Neonatorum	5
Diphtheria ... ..	110	Puerperal Fever ...	0
Scarlet Fever ... ..	23	Cerebro-Spinal Fever	1
Enteric Fever ... ..	0	Pulmonary Tuberculosis	119
Erysipelas ... ..	18	Other forms of Tuberculosis	34

### DEATHS—

Total uncorrected, 640: rate, 11·8 per 1,000 living.

Total corrected, 634, rate (standardised) 11·9 per 1,000 living.

Under 1 year of age, 88: rate, 86·5 per 1,000 births registered.

Causes of death, all ages, persons:—

	No.	Rate.	
Measles ... ..	15	·26	per 1,000 living
Scarlet Fever ... ..	0	·00	"
Whooping Cough ... ..	10	·18	"
Diphtheria ... ..	4	·13	"
Infant Diarrhœa (under 2 years of age) ... ..	14	·27	"
Pulmonary Tuberculosis ...	59	1·08	"
Tuberculosis (other forms)	20	·37	"
Cancer ... ..	56	1·03	"
Respiratory Diseases {	43	·77	Pneumonia Bronchitis Pleurisy Other diseases of Respiratory System
	39	·70	
	0	·00	
	4	·07	
Organic Heart Disease ...	82	1·52,	per 1,000 living '79
Total Zymotic Death Rate per 1,000 living '79.			

## *Statistics for the Year 1918.*

A summary of these will be found on p. 2, to be compared with those of 1917, given on p. 3. The figures for estimated population are still supplied by the Registrar General, the higher figure including the military population, to be used when calculating the birth rate, whilst the lower (civilian population only) is for use in estimating the death rate.

**BIRTH RATE AND INFANT DEATH RATE.** The birth rate has declined still further than in the previous year. Fortunately the infant death rate also remains low. The latter is now practically stationary, at 87 per 1,000, compared with 86.5 per 1,000 in 1917.

**NOTIFICATIONS OF INFECTIOUS DISEASE.** In this respect, matters are very satisfactory, as the number of notifications for 1918 was only 609, compared with 1196 in 1917, and 819 in 1916. This low figure is due to the fact that Measles was not prevalent to any serious extent during the year, and also to the small number of cases of Diphtheria and Scarlet Fever as compared with other years.

**DEATH RETURNS.** The deaths for 1918 numbered 728 compared with 640 in 1917, an increase of 88, which is easily accounted for by the fact that Influenza was responsible for 124 deaths in this Borough. A comparison of pages 2 and 3, shows that Bronchitis has been responsible for an increased number of deaths this year, which is accounted for by the fact that catarrhal conditions of the lungs were very common at the time of the epidemic.

Fuller discussion of the above matters, and other details, will be found in the text of the report.

## *After-War Problems of Public Health.*

The problems awaiting public health authorities of the country, now that the great war is over, are many and varied.

A question which excites universal interest, and which is of far reaching importance, is the problem of a low birth rate. In times of economic stress this condition is inevitable and will probably be righted again in times of peace and prosperity, but it will not be surprising if the birth rate remains low for several years.

If such conditions obtain, it becomes increasingly important to keep down the death rate, particularly the infant death rate, and the death rate of children up to the age of 5 years.

During the last twenty years the infant death rate of this Borough has been more than halved (from 190 to 90), but during the next 5 years it should be halved again, or reduced to at least 50 per 1,000.

The establishment of Municipal Maternity Homes is a measure which is calculated to reduce infant mortality, and in addition, by removing some of the difficulties attendant on the process of childbirth, it may have the effect of encouraging a higher birthrate.

Another matter which is exciting considerable interest, at present, is the question of "painless" methods of childbirth. In recent years much progress has been made in the improvement of the technique of these methods, particularly with the Scopolamine-morphine method. This method, as conducted in special institutions devoted to the purpose, involves practically no additional risk, either to mother or child.

In view of these facts there is likely to be an increasing demand for its employment in the future. At present, the chief drawbacks to its more general adoption are the difficulties of carrying it out in the private house, and also the expense which is entailed by resort to a nursing home.

There appears to be no good reason why this method should not be carried out in Municipal Maternity Homes.

With regard to the class of patient who should be admitted to the Maternity Home, it is usually assumed that such an institution is intended entirely for the poorest class of women. It is interesting to note, however, that at the Ilford Municipal Maternity Home, patients are admitted who pay from three to four guineas per week for the accommodation provided. As a matter of fact the middle classes would in many towns appreciate the provision of accommodation of this kind. As a general rule their requirements in the matter of medical institutions receive very little consideration.

In addition to matters connected with Maternity and Child Welfare, there are other post-war health questions of great importance. The prevention and treatment of Tuberculosis and Venereal Diseases are amongst the most urgent of these. Borough authorities when not entrusted with the administration of schemes of medical treatment for these diseases, nevertheless have their share of responsibility for their prevention.

With regard to Tuberculosis, better housing, both as regards better construction and fewer houses to the acre, will go far to prevent the disease, also the provision of more open spaces in towns.

The problem of Venereal Disease is an exceedingly difficult one to tackle. It is said that the encouragement of wholesome amusements, and other counter-attractions to the lure of vice, are of assistance in combating the evil. It should not be forgotten that the question has a moral as well as a medical side, but this is a matter for the various religious bodies to deal with rather than health committees.

### *Births and Birth Rate of Luton.*

I am now supplied by the Registrar General, with figures for the number of births in Luton. During the year 1918 they were as follows:—

			MALES.	FEMALES.
Legitimate	...	...	482	444
Illegitimate	...	...	32	42
			<hr/> 514	<hr/> 486

Total number of births 1,000.

The estimated population for the purpose of calculating the birth rate is 60,853.

The birth rate of Luton for 1918 is 16'4.

It is necessary to repeat a remark, which was made in the Annual Report of 1917, that this year's birth rate is the lowest on record in Luton.

In 1917 it was 16'7 compared with 21'43 in 1916, 21'2 in 1915, 23'9 in 1914, 23'8 in 1913, 22'8 in 1912 and 25'2 in 1910.

The birth rate for the whole of England and Wales was 17'7 in 1918, 17'8 in 1917 and 21'6 in 1916.

Other returns for 1918 are as follows: 96 great towns (including London) 17'6: 148 smaller towns (with population 20,000 to 50,000) 17'9, London 16'1.

**ILLEGITIMATE BIRTH RATE.**—The number of illegitimate births in 1918 was 74.

The figures for the last decade are as follows:—

1918: 74, 1917: 77, 1916: 52, 1915: 52, 1914: 45,  
1913: 35, 1912: 52, 1911: 44, 1910: 38, 1909: 48,  
and in 1908: 53.

In point of view of the actual numbers of illegitimate births it will be seen that there is an increase in illegitimacy. It is, however, necessary to consider the illegitimate birth rate in proportion to the population in order to get a true index of the actual state of affairs in this respect. It is a fair comparison to take the worst year of the last five years, 1917, in which 77 illegitimate births occurred, and the worst year of the previous six years, 1908, which yielded 53 illegitimate births.

In 1917 a population of 60,426 produced 77 illegitimate births (illeg. B.R. per 1,000 pop.-1'1)  
„ 1908 „ „ 40,000 „ 53 „ „ ( „ „ „ 1,000 „ -1'3)

Thus in comparing the *illegitimate birth rates* per 1,000 population of 1917 and 1908, the comparison is in favour of 1917. This shows clearly that illegitimacy when considered in proportion to the population has not increased in Luton during the war.

### *Deaths.*

721 deaths were registered in Luton in 1917. Sixty deaths of Luton residents were returned by the Registrar General as having occurred outside the Borough, and the number of people who have died in Luton during the year, but who were not residents in the locality was returned as 53. This gives a nett result of 728 deaths for the Borough of Luton.

On a population of 54,310 the uncorrected death rate (for 721 deaths) is 13'2. The corrected figure (728) gives a corrected death rate of 13'4. This is standardised by multiplying by the local factor for correction, which is 1'0334. This gives a standardised corrected death rate of 13'8 for 1918 as compared with 11'9 for 1917.

The epidemic of Influenza is chiefly responsible for this increased Death Rate.

A study of the summary of vital statistics in 1917 and 1918, on pages 2 and 3, shows that the mortality from some diseases has increased, whilst that from others has diminished as follows:—

INCREASED.	DECREASED.
Pulmonary Tuberculosis	Cancer
Influenza	Measles
Bronchitis	Whooping Cough
Diphtheria	Infant Diarrhoea
	Pneumonia

### *Death Rates in Luton.*

In estimating these rates the population figure supplied by the Registrar General has been used—54,310. This is an estimate which does not take into account the local numerical increase of population due to the presence of troops in the Borough. It is employed in this connection on the suggestion of the Local Government Board in their circular of January, 1917.

By the courtesy of the Registrar General I am enabled to publish the following table comparing our local death rates with those of the whole country and other towns:—

DEATH-RATE AND ANALYSIS OF MORTALITY DURING THE YEAR 1917.

	ANNUAL DEATH-RATE PER 1,000 LIVING.								RATE PER 1,000 BIRTHS.	
	All Causes	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping cough.	Diphtheria.	Violence.	Diarrhoea and Enteritis (under 2 Years).	Total Deaths under One Year.
England and Wales ...	17·6	0·03	0·00	0·28	0·03	0·29	0·14	0·49	10·99	97
96 Great Towns, including London (Census Populations exceeding 50,000) ...	18·2	0·02	0·00	0·36	0·04	0·34	0·15	0·49	14·46	106
148 Smaller Towns (Census Populations 20,000—50,000) ...	16·1	0·03	0·00	0·25	0·00	0·02	0·25	0·38	9·73	94
London ...	16·1	0·03	0·00	0·42	0·03	0·43	0·17	0·56	15·67	107
LUTON ...	13·8	0·01	0·00	0·05	0·01	0·05	0·18	0·16	11·00	87

A study of the above table shows that the Death Rate from all causes in Luton is lower than that for the whole country, for London and for the other groups of towns. The Death Rates from Measles, Scarlet Fever and Whooping Cough are also low, whilst that from Diphtheria is nearly the same in Luton as for the whole country.

The Infant Death Rate is comparatively low, whilst the rate for Infant Diarrhoea is very slightly above the average for England and Wales.

**ZYMOTIC DEATH RATE.**—One hundred and fifty-five deaths were due to Zymotic diseases, of which 140 were from notifiable and 15 from non-notifiable diseases. Influenza accounted for 124 of these 155 deaths. But for the prevalence of an Influenza epidemic, the Zymotic Death Rate for 1918 would have been lower than that of 1917. Under these circumstances however it was 2·8 per 1,000 in 1918 compared with '79 in 1917, '81 in 1916, 1·53 in 1915 and 1·94 in 1914.

**PHTHISIS DEATH RATE.**—Pulmonary Tuberculosis was responsible for 69 deaths in 1918 compared with 59 deaths in 1917, 47 in 1916 and 51 in 1915.

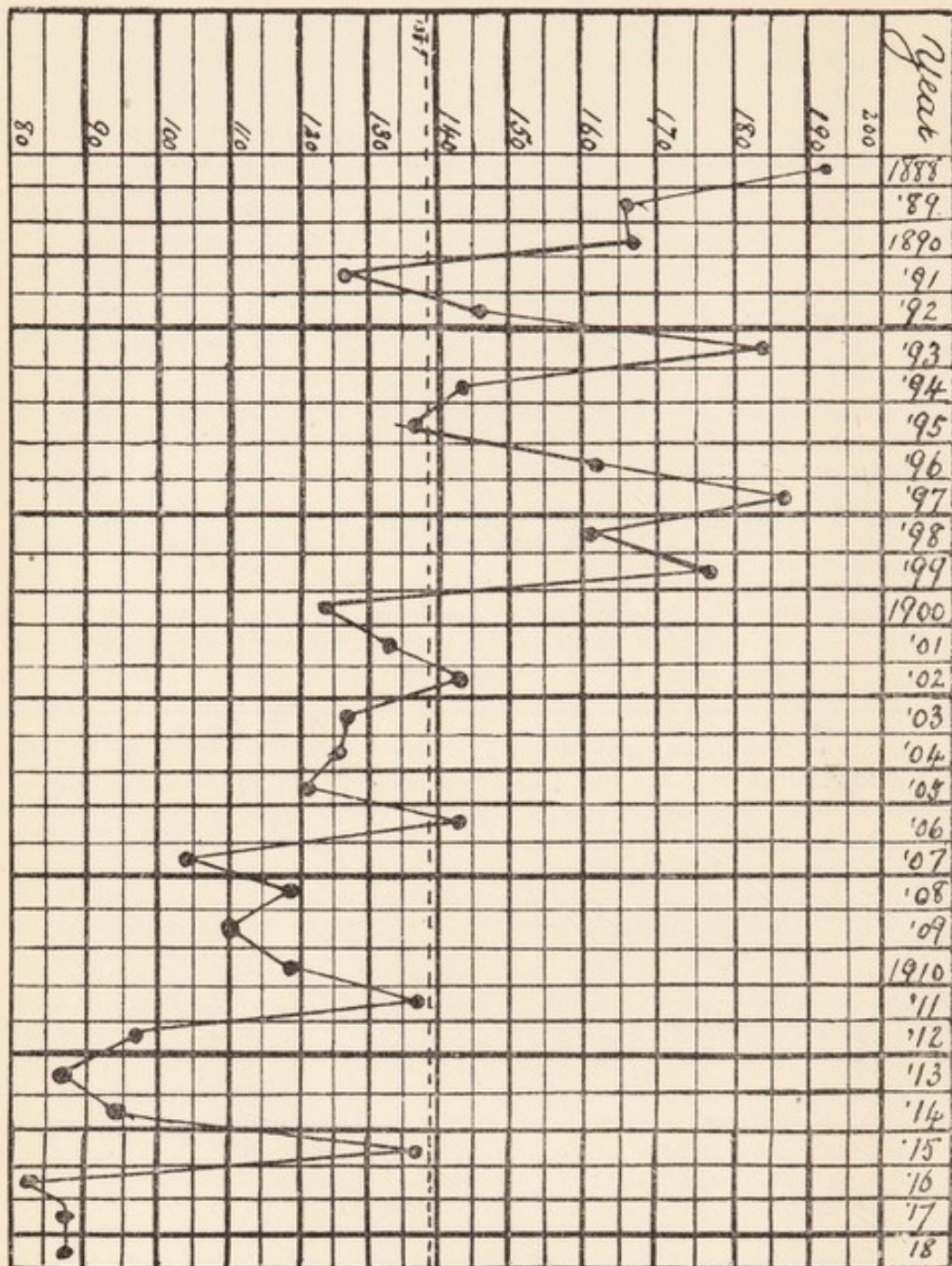
This gives a Phthisis death rate of 1·29 per 1,000 as compared with 1·08 in 1917.

### *Infantile Mortality.*

#### DEATHS UNDER THE AGE OF TWELVE MONTHS.

The infant deaths under the age of twelve months in 1918 were 87 compared with 88 in 1917. With this diminution in the number of deaths there has also been a slightly greater diminution in the number of births. This brings about a slight rise in the infant mortality of '5 per 1,000. The Infant Death Rate for 1918 was 87 compared with 86·5 in 1917.

The following diagram shows the course of infant mortality in the Borough since 1888.



*Infantile Mortality, Luton, 1888-1918 inclusive.*

Some of the principal causes of infant deaths under the age of 12 months were as follows, the figures for the last eight years being given for comparison.

	1918.	1917.	1916.	1915.	1914.	1913.	1912.	1911.
Diarrhoea and Enteritis ...	9	9	9	27	19	12	1	53
Premature Birth ...	30	19	15	29	26	17	29	32
Wasting Diseases ...	18	11	18	35	35	27	—	21
Pneumonia and Bronchitis ...	13	19	14	29	14	20	13	21
Measles ...	1	2	1	1	3	—	2	7

It will be seen from the above table that prematurity was the chief cause of infantile deaths during 1918.

This state of affairs was doubtless due mainly to the worry and strain of

war conditions, which have acted injuriously on the health of expectant mothers, with the result recorded above.

**STILL BIRTHS.** Under the Notification of Births Act, 1907, it is compulsory to notify all still births in which the mother has reached the end of the twenty-eighth week of pregnancy. It is unfortunate that all cases of still birth are not notifiable in order that fuller investigations may be made into their cause. The following figures give the results of the enquiries of the Health Visitors into the causes of 20 cases notified during the year. Records of enquiries made are retained at the office on the card system.

Prematurity responsible for 10 still births.

Injury or fright       "       "       5       "       "

Cases in which no definite  
cause could be assigned       5       "       "

Total       20

### *Maternity and Child Welfare Scheme.*

In December of this year the Acting Medical Officer of Health presented a Report to the newly constituted Maternity and Child Welfare Committee for a scheme to enlarge the scope of the work.

The Report was consequent to the Maternity and Child Welfare Act of 1918, and embodied most of the matters dealt with in the recent Memorandum of the Local Government Board dealing with this subject. The Committee whilst feeling unable to adopt the whole of the measures suggested in the Report decided to proceed with the Wardown scheme and also to appoint a municipal midwife.

The following recommendations were therefore adopted and were afterwards sanctioned by the Council:—

- (1). **MATERNITY HOME, ETC.** (a) That subject to the concurrence of the Parks Committee, Wardown House be used, as soon as it is available, as a Maternity Home, Infants' Hospital and Home for neglected infants as mentioned in pages 17 and 18 of Medical Officer's Report on the Scheme; and that a rent of £100 per annum for the use of the building be paid to the Parks Committee's Account, and all repairs to the building be paid by this Committee.
- (b) That, if recommendations be adopted, application be made to the Local Government Board for their approval (under the Public Health Amendment Act, 1907, section 95) to the appropriation of Wardown House for the foregoing purpose, the property having been required for the purpose of a public park.
- (c) That the following Estimate be substituted for the Summary of Costs on page 20 of the Scheme so far as relates to the Wardown Scheme:—

#### WARDOWN SCHEME: ESTIMATE.

##### *Initial Expenditure:—*

Adaptations and repairs	...	...	250	0	0
Hospital fittings and furniture	...	...	250	0	0

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500   0   0

Less Government contribution	...	250	0	0
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Local cost	...	...	£250	0	0
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*Annual Expenditure :—*

	£	s.	d.
STAFF :—Resident Midwife for Maternity Home to act as Matron of combined institutions ... ..	80	0	0
Sister for Maternity Home ... ..	50	0	0
2 Trained Nurses for Infants ... ..	80	0	0
2 Probationer Nurses for Infants ... ..	40	0	0
1 Cook and 3 Maids ... ..	110	0	0
3 Scrubbers at 15/- per week ... ..	120	0	0
Caretaker (resident) ... ..	80	0	0
FEEDING :—Nurses and Maids ... ..	350	0	0
Patients (lying-in-women) ... ..	150	0	0
Infants in <i>Hospital</i> (10 cots) ... ..	150	0	0
Deficiency on Infants (6 cots) in <i>Home</i> say... ..	30	0	0
Two beds for Nursing Mothers (with cots) ... ..	150	0	0
LAUNDRY :—2 Laundresses (board and wages)	130	0	0
OTHER ITEMS :—			
Rent of Wardown House ... ..	100	0	0
Rates and taxes ... ..	20	0	0
Repairs ... ..	100	0	0
Coal and gas ... ..	150	0	0
Drugs ... ..	20	0	0
	1910	0	0
Less Government contribution ... ..	955	0	0
Local cost ... ..	£955	0	0

- (2) MUNICIPAL MIDWIFE. That a whole-time fully qualified Municipal Midwife be engaged, with a salary at the rate of £140 per annum, including uniform, to attend the poorest class of mothers; and that this Committee be empowered to invite applications, and to select a candidate for appointment.

(NOTE :—One-half of the salary of this midwife, after deducting the fees received for her services, will be refunded by the Government.)

The Parks Committee sanctioned the use of Wardown House for a period of three years from July 1st, 1919, and the above items of the scheme were formally approved at a meeting of the Council on January 21st, 1919.

At the time of writing this Report, however, the matter is in abeyance.

Alternative schemes for utilising other buildings for the purposes proposed have been considered, but so far no satisfactory solution of the difficulty can be found.

Probably the projects of founding a Maternity Home, an Infants' Hospital, and an institution for neglected infants, will be considerably delayed, if not postponed indefinitely.

It has been suggested that the Infants' Hospital should be run in conjunction with the present Children's Home in London Road, this institution to be enlarged in order to include wards for infants. There appears to be no good reason against this plan, provided that suitable accommodation can be provided. It must be borne in mind in any scheme which may be considered in this connection, that not more than four infants' cots are allowed in one ward by the Local Government Board regulations. This safeguard is necessary in order to protect infants from infection. Further, the wards provided for infants should provide every facility for fresh air treatment. If situated on the ground floor a verandah should be provided, if on the first floor an open air balcony,

so that in either case the cots may be moved into the open air when climatic conditions permit. It has been proved by the experience of other institutions that infants require an unlimited amount of fresh air. If this is not provided the infants are particularly liable to diarrhoeal and other intestinal disorders and do not flourish. In addition there are also the ordinary infectious diseases to be guarded against, but these are a less serious consideration than the foregoing matter.

In the report which was recently presented to the Maternity and Infant Welfare Committee, other recommendations were made as follows:—

- (a) The construction of a Central Infant Welfare Clinic in Waller Street.
- (b) Routine medical inspection of children of pre-school age between the ages of 2 and 5.
- (c) The appointment of an Assistant Medical Officer of Health.
- (d) The appointment of a Health Visitor for Measles and other infections, to instruct mothers in the home nursing of these ailments.

The matter of the central clinic was one which could not be proceeded with immediately, as the premises are at present in use as a school. It was felt undesirable to load the present scheme with an item which would cause delay in the execution of the Wardown arrangements, and it was therefore not dealt with.

The recommendation for the appointment of an Assistant Medical Officer of Health was also left unsettled for the time being. On this account the appointment of Dr. Irene Bastow as Medical Officer at the Infant Welfare Centres, was made a temporary one.

In addition to the definite recommendations of the Report various suggestions were made as to future developments. The matters thus dealt with were as follows:—

- (a) Day and Night Nurseries.
- (b) Provision of Home Helps.
- (c) Convalescent Home.

Of these suggestions the scheme for *Day and Night Nurseries* is the one most likely to mature. It should be considered in connection with the scheme for Nursery Schools at present in the hands of the Education Committee, as the two institutions are very much akin and could be well administered under the same management.

The provision of *Home Helps*, or women to assist in the house at the time of childbirth is a matter well deserving further consideration. The difficulty is, however, to find women who will undertake such work. Further the status and duties of this class of worker have not yet been clearly defined. The Local Government Board, apparently has in view a kind of monthly nurse, *i.e.*, a woman who would undertake a certain amount of nursing in addition to performing domestic work.

The matter of a *Convalescent Home* received mention, as Local Authorities now have power to provide this type of institution.

*Pre-natal consultations* also were mentioned, but at present it is not practicable to run a successful pre-natal clinic on account of the inadequacy of the premises for this purpose. The adoption of the scheme for a well equipped central clinic would remove this difficulty.

At the time the report was presented, the question of a *Dental Clinic* for

expectant and nursing mothers was settled, as this enterprise was already sanctioned by the Local Government Board. The clinic is now in working order, and the dentist attends one evening per week to attend to mothers who are in need of his services. The following is a copy of a handbill which has been issued emphasising the importance of dental treatment in the case of mothers and young children.

## BOROUGH OF LUTON.

### IMPORTANT NOTICE TO MOTHERS ABOUT

## CARE OF THE TEETH.

*Issued by the Maternity and Child Welfare Committee.*

Bad teeth are responsible for much ill-health amongst people of all ages. Without good teeth it is impossible to chew properly, and this means that the food is bolted when it is half masticated. This leads to chronic indigestion and anæmia. In addition, the presence of decaying teeth in the mouth causes a constant flow of poisonous and offensive material into the stomach, day and night.

### EXPECTANT AND NURSING MOTHERS.

Many expectant and nursing mothers do not realise the importance of keeping their teeth clean and in good order. If the nursing mother cannot chew her food properly, she will not be well nourished and her breast milk is likely to fail, thus causing suffering to the baby.

**All Babies should be Breast Fed**, but they cannot be well breast fed unless the mother eats well and digests her food properly. Every mother should use a tooth brush night and morning. If her teeth are decayed she should see a **QUALIFIED DENTIST**.

Some mothers cannot afford this. If so, they may be treated by the Borough Dentist at the Dental Clinic, in Waller Street, at a reduced charge. Mothers should not delay in getting treatment. If possible, the Dentist will save teeth by filling them. If they are too far gone to be saved, he will extract them.

**Artificial Teeth**, in full sets and half sets, are also supplied. If your teeth are troubling you, mention the matter to the Health Visitor, who will give you a card to see the Dentist.

**Do not Delay**, because delay means bad health, both for yourself and the baby.

**Expectant Mothers** will be required to bring a medical certificate stating that they are in fit condition for dental treatment before this can be undertaken.

### TEETH OF INFANTS AND YOUNG CHILDREN.

It is never too early to get your child's teeth attended to.

Do not say, "It is only his first set of teeth," or "Bad teeth don't matter because they will decay and drop out," and then neglect the child's teeth.

It is important to attend to the first set. If the first set are bad, the second set may become infected and go bad too. The School Dentist attends at the Waller Street Clinic every morning to treat school children. If your child is too young to go to school, and has bad teeth, ask the Health Visitor's advice about it. Treatment may be obtained at any age.

WILLIAM J. COX, M.B., Ch.B., D.P.H.,

*Acting Medical Officer of Health.*

THE TOWN HALL,  
LUTON.

**FUTURE OF MATERNITY AND INFANT WELFARE WORK.** There is every indication that this branch of Public Health work, which is at present in a comparatively early stage of development, will in future be one of the most important of the functions of a Local Authority. With the establishment of a Maternity Home and Infants' Hospital, the present scheme in this town would be amplified, and made more complete and effectual.

The *Municipal Maternity Home* is the best foundation for a scheme of Infant Welfare, as it affects not only the health of the mother, which is just as worthy of consideration as that of the child, but it has very direct results on the health of the infant.

The infant who is born in a well conducted Maternity Home starts life on the right lines. For the first fortnight of his existence, at any rate, he will be spared much well-intentioned but ill-directed attention on the part of interfering relatives and neighbours. The mother will be required to undertake that she stays in the Home for at least a fortnight after the birth of the child, so that she may get sufficient rest to ensure her recovery. During this time she will receive instruction in the proper methods of infant care and in nearly all cases the infant will leave the home as a "breast-fed." This last fact will be a great gain to the infant. The case will be carefully followed up by the Health Visitor, who will do her best to prevent the institution of bottle feeding by the mother. Further, if difficulties arise later in the process of breast feeding owing to fatigue or ill-health on the part of the mother, it will be possible to admit both mother and infant to one of the two beds reserved for this purpose.

The *Infants' Hospital* is a necessary feature in an Infant Welfare scheme. The type of case which it is desirable to admit is chiefly the case suffering from some form of disorder of nutrition. This would include a variety of cases suffering from alimentary intoxication due to incorrect methods of feeding, or to defective powers of digestion and assimilation on the part of the infant, and would cover a wide range of cases which are usually comprehended under the vague term "Marasmus."

Cases of rickets would also be admitted for hygienic treatment. Cases suffering from infectious disease which is likely to be conveyed to other infants would be rigidly excluded.

The age limit for admission to an infants' ward should be two years. If, later, it is found desirable to admit children over the age of two years, a ward could be fitted up for the reception of these cases. All cases requiring *surgical* treatment should be referred to the Children's Home.

The appointment of a municipal midwife will be of assistance to the scheme, particularly with regard to pre-natal work. It is not desired to compete injuriously with midwives already in practice, and with this in view, the municipal midwife will attend the poorest cases only.

At the present time a connecting link is required between the work of the Infant Welfare Centres on the one hand, and medical inspection of schools on the other. The former chiefly deal with infants up to the age of two years, and the latter begins at the age of five years. To bridge over this gap, routine inspection of the ages between 2 and 5 years is required. This will doubtless be undertaken in the future. Nursery Schools which deal with children between the ages of 3 and 5 years will also assist in this direction, but this is a matter for the Education Committee to deal with.

**WORK OF THE INFANT WELFARE CENTRES.** As already explained the centres deal chiefly with infants up to the age of two years. A few children between the ages of two and five years attend, but little attention can be given to these, beyond weighing and giving advice on minor ailments. The parents would in most cases welcome a system of routine inspection for this age period. Much however is being done for infants up to the age of two years, and this is as much as the centres at present are able to accomplish. Advice is given with regard to infant feeding and also concerning the mother's health during lactation. The prescribing of drugs is avoided as much as possible, as therein lies a danger.

If bottles of medicine and powders are to be frequently prescribed for infantile ailments, the mother is apt to rely on drugs as remedies, when the real remedy may be a correction of the method of feeding or of other errors of a hygienic nature. Teething powders, as such, are avoided, although an occasional grey powder is prescribed if necessary. Virol and Chymol are also supplied in suitable cases. In the advice given on infant feeding, breast feeding is always advocated in every case where it is possible. If the infant cannot be fed entirely on the breast, a system of partial breast feeding is advised.

If one or two breast feeds can be given per day, this is better than a system of artificial feeding only. Better still, the child should be put to the breast at *every* feeding time, the feed being supplemented in each case by the bottle. By this method, secretion of milk is stimulated, and the daily amount of milk available for the infant may often be increased.

With regard to clothing of infants, "all wool" is recommended for underwear. The assistance of the voluntary helpers is particularly useful in this respect. Great praise is due to the helpers at the centres who have knitted garments, and also to other friends not connected with the centres who have helped in this useful work. Much has been accomplished in this way. Amongst the articles of woollen clothing which have been supplied may be mentioned body belts, vests, pilches, coats, caps and knickers. These articles are supplied to mothers at a nominal price which is just sufficient to cover the cost of the wool. While this is a very good method of ensuring suitable clothing, the scheme would be improved and supplemented by giving instruction to the mothers to enable them to knit the garments themselves. The assistance of the voluntary helpers could again in this matter be of great service. These ladies are also giving much other assistance in the matters of weighing babies and selling dried milk and other preparations.

Their enthusiasm for the work has been of great assistance and has undoubtedly in many cases encouraged the attendance of mothers at the centres.

**PREMISES FOR INFANT WELFARE.** In the recent Report presented by the acting Medical Officer of Health, attention was drawn to the unsatisfactory character of some of the premises at present in use. Defects of heating, lighting and ventilation are amongst the chief drawbacks, also lack of privacy for the consultations in some cases. These defects are unavoidable in premises which are not permanently in use for Infant Welfare purposes. In winter the attendance at the centres is interfered with on account of the insufficient and unsuitable heating apparatus. Mothers in many cases hesitate to undress their infants in a cold room, and if the windows are opened on account of the general stuffiness of the atmosphere, they naturally fear draughts. On the other hand the existence of centres in various parts of the town is undoubtedly a great convenience to mothers, and for this reason it is clearly not desirable to confine the work to one central clinic only. What is required is a system which includes a well equipped central clinic with other centres to act as "feeders" or outposts of the work. Probably two centres of the latter type would be necessary, one for High Town and the other at Bury Park, which are districts at some distance from the centre of the town.

**NUMBER OF ATTENDANCES AT THE CENTRES.** Owing to the opening of a new centre at Bury Park in February, more attendances have been made than in the previous year. In 1917, 4,200 attendances of infants were recorded and in 1918, 5,192.

The number of infants attending at each centre was as follows:—Church Street (Monday) 189; Church Street (Thursday) 223; Brunswick Street 150; Castle Street, 221; Bury Park, 227. This makes a total of 1010 infants, compared with 876 in 1917. In 1917 the number of infants attending each centre was as follows:—Church Street, 532; Brunswick Street, 250; Castle Street, 94; Total 876.

The figures for 1918 show a considerable increase on previous years, and also that the infants are fairly evenly distributed amongst the centres. The following table shows the number of attendances made at the centres throughout the year:—

1918. Month.	Number of Attendances at Centres.				
	Church St. (Monday).	Church St. (Thursday).	Brunswick Street.	Castle Street.	Bury Park.
January ...	81	91	68	49	—
February ...	75	133	106	62	17
March ...	101	106	124	68	81
April ...	48	76	96	55	109
May ...	53	58	82	63	146
June ...	106	137	172	105	132
July ...	76	88	138	48	80
August ...	45	114	98	47	167
September ...	59	117	83	49	212
October ...	81	111	74	78	159
November ...	36	150	66	18	62
December ...	55	50	60	43	127
TOTALS ...	816	1231	1157	685	1303

Total number of attendances ... 5,192.

WORK OF HEALTH VISITORS. During the year the Health Visitors have paid 6,043 home visits. During the month of August there was an interval without Health Visitors owing to the resignation of Miss Evans and Miss Walton, who left to take up duties in a military hospital. Their place was filled by the appointment of the Misses Meta and Sallie Jackson, who are at present continuing the duties.

The table below gives some particulars about the number of visits and also the results of investigations about work undertaken during pregnancy, the state of health during pregnancy and the attendance at childbirth, whether by medical practitioner or midwife.

1918.	MOTHER.							1918. Home Visits by Health Visitors.			
	WORK.		HEALTH.		Attendance at Child Birth.		Hist'y of Tuber- culosis	1st Visits.	Re-Visits.	Special Visits.	Total Visits.
	House	Other	Good.	Bad.	Doctor	M <sup>w</sup> ife					
January ...	35	3	19	15	19	19	2	124	295	158	577
February ...	55	2	30	14	23	34	2	78	445	93	616
March ...	51	8	41	10	36	24	1	76	469	40	585
April ...	56	5	48	11	35	26	2	82	428	57	567
May ...	58	9	52	16	31	38	1	92	296	76	483
June ...	72	4	24	21	46	37	3	185	439	50	594
July ...	57	26	68	14	33	51	1	104	395	57	556
August ...	66	15	71	11	40	41	6	—	—	—	—
September ...	91	36	100	27	51	15	1	148	247	16	411
October ...	49	19	60	8	30	40	2	79	487	27	593
November ...	85	19	70	15	29	46	—	86	503	92	681
December ...	36	9	39	6	25	24	—	61	312	57	430
Total ...	711	155	652	168	398	455	23	1,024	4 316	723	6,043

29 cases of still birth were notified during the year.

The above table shows that 866 births were enquired into. 54 per cent, or 455 cases, were attended by midwives. The table also shows that a large number of women, 168 or 20 per cent. suffered from ill-health during pregnancy.

In 23 cases, or 2·6 per cent, a definite tuberculous family history was found in one or other parent.

## NOTIFIABLE INFECTIOUS DISEASES.

### *Diphtheria.*

During 1917 there was a great decline in the number of cases of Diphtheria, and it is gratifying to note that this decline has been continued in 1918.

The majority of cases which occurred during the last year were of a mild type. Sore throat has been prevalent during 1918 to an extent above the average, especially during the Influenza epidemic, when catarrhal conditions were fairly general amongst the population of the town. Fortunately the Influenza epidemic did not lead to an increased prevalence of Diphtheria. In a few cases Influenza was complicated by Diphtheria, or on the other hand in some instances, cases of Diphtheria were at first overlooked owing to the epidemic of Influenza. At the time of the epidemic there was a tendency on the part of the general public to regard all febrile conditions as Influenza.

The following table gives the number of notifications and deaths each year since 1897:—

Year.	No. of Cases.	Deaths.	Year.	No. of Cases.	Deaths.	Year.	No. of Cases.	Deaths
1897	12	3	1905	7	0	1913	166	15
1898	39	13	1906	103	16	1914	568	72
1899	50	7	1907	103	24	1915	301	32
1900	11	5	1908	56	8	1916	305	27
1901	12	2	1909	75	12	1917	110	4
1902	17	0	1910	32	3	1918	100	10
1903	18	0	1911	45	25			
1904	4	1	1912	22	42			

**MORTALITY.** During the last year 10 deaths have occurred from Diphtheria, compared with 4 in 1917, 27 in 1916, 32 in 1915 and 72 in 1914.

The annual Death Rate per 1,000 living for Diphtheria in England and Wales during the year 1917 was '14. That for Luton was '18, being thus slightly above the average for the whole country.

**METHODS OF INFECTION.** These have been much the same as in previous years, but now that the incidence of the disease is lessening there are fewer cases of direct infection. The prevalence of the recent Influenza epidemic undoubtedly aided the spread of Diphtheria infection in a few cases, but not sufficiently to cause much increase in the number of cases at the time.

"Carriers" have, as usual, played their part in spreading infection, and have been dealt with in every case where they could be discovered. School infection has played a less prominent part in 1917 than in previous years. Only one school in the town has been seriously affected. Numerous visits were paid to this particular school and throats of children in the classes affected were swabbed. By these measures several "carrier" cases were brought to light and excluded until free from infection. At one time the Infants' department was closed as a further precaution.

**PREVENTIVE MEASURES.** The usual methods of combating the disease have been employed, viz.:—isolation of cases affected with the disease, quarantine of "contacts," disinfection of premises, provision of disinfectants from the Town Hall, provision of anti-toxin for medical practitioners free of charge and the examination and "swabbing" of the throats in suspicious cases by the Medical Officer of Health. Swabs sent by practitioners to the Town Hall have also been examined there and reported on by the M.O.H. In addition the School Nurses have taken swabs from the throats of all suspicious cases that have come under their notice at the School Clinic. Altogether 391 swabs were examined last year.

As in previous years efforts have been made to isolate *all* cases of Diphtheria at the Isolation Hospital. The efforts of the Medical Officer in this direction are however sometimes frustrated by short sighted and sentimental parents who object to removal. Fortunately such cases are not numerous. Out of 100 cases which were notified in 1918, 89 were removed to hospital. In 1917, the record was even better, 105 out of 110 cases being removed to Spittlesea. Much credit is due to the officer in charge of removal of the cases, for the promptness with which he has usually effected the removals.

School children who were "contacts" have been excluded from school for the usual period of two weeks, and the same procedure has been adopted in the case of employees of Messrs. G. Kent and Co., who have happened to be billeted in houses where cases of Diphtheria have occurred.

Medical inspection of schools is a valuable adjunct to Public Health work, particularly in relation to the prevention of infectious disease. Many cases of sore throat are examined at the School Clinic and in this way cases of Diphtheria are frequently brought to light. In addition all cases of "red" (inflamed) throat are excluded from school, as a throat of this type is likely to form the *nidus* of Diphtheria infection, if there is any chance of a Diphtheria infection being super-imposed on an ordinary septic infection. Suspicious cases of "red" throat in school children are swabbed in order to decide whether diphtheritic infection is present. The assistance of the medical practitioners of the town has been most valuable not only in notifying cases, but also in sending swabs of suspicious cases. In the present stage of Diphtheria infection in the town, which may be considered the "tail-end" of an epidemic which started in 1913, there is often considerable difficulty in determining whether a case is one of true Diphtheria, or whether it is merely a case of septic sore throat.

The appearance of the throat in both conditions is frequently similar in the slighter cases, so that bacteriological evidence is needed in order to decide between the two.

The outbreak of Diphtheria has fortunately now ceased to be an "epidemic," although a certain amount of infection still lingers, which is the direct consequence of the recent epidemic. The present number of cases is not to be regarded as normal, although our death rate from Diphtheria in 1917 was only '07 per 1,000 living, being about half that for the whole country, which was '13 per 1,000. The present administrative measures, pursued over a further period of time, will undoubtedly lead to a further diminution in the case incidence of Diphtheria. A Diphtheria epidemic of the magnitude of the one which started in 1913 creates a Public Health problem which is not easily disposed of. Undoubtedly our lack of accommodation at Spittlesea did much both to enlarge the borders of the epidemic at its start, and also to ensure the perpetuation of infection over a long period. This matter is further dealt with under the heading Isolation Hospital on page 20.

### *Scarlet Fever.*

There is little to report in connection with this disease, except that the number of cases in 1918 was 27, compared with 23 in 1917 (the lowest number on record in Luton) and 43 in 1916.

Only one death occurred from the disease, but all the other cases were of the mildest possible type.

The following table shows the number of notifications of Scarlet Fever in the Borough of Luton since 1897:—

Year.	No. of Cases.	Year.	No. of Cases.	Year.	No. of Cases.
1897	... 185	1905	... 30	1913	... 321
1898	... 75	1906	... 180	1914	... 246
1899	... 43	1907	... 92	1915	... 128
1900	... 62	1908	... 42	1916	... 43
1901	... 268	1909	... 177	1917	... 23
1902	... 89	1910	... 123	1918	... 27
1903	... 68	1911	... 74		
1904	... 65	1912	... 57		

### *Typhoid Fever.*

Two cases occurred in the Borough. One was treated at the Bute Hospital and the other was removed to Spittlesea.

The following table shows the number of notifications of Typhoid Fever in the Borough of Luton since 1897—

Year.	No. of Cases.	Year.	No. of Cases.	Year.	No. of Cases.
1897	... 37	1905	... 6	1913	... 9
1898	... 16	1906	... 9	1914	... 3
1899	... 28	1907	... 9	1915	... 7
1900	... 22	1908	... 9	1916	... 5
1901	... 19	1909	... 4	1917	... 0
1902	... 7	1910	... 2	1918	... 2
1903	... 5	1911	... 36		
1904	... 5	1912	... 13		

### *Measles.*

MEASLES was not prevalent in the town in 1918 to the same extent as in 1917, the number of notifications being 303 against 886 in 1917. Of this number 27 were parental notifications. The number of deaths from Measles was 3.

The number of notifications for each month was as follows:—January, 145; February, 73; March, 32; April, 13; May, 16; June, 14; July, 3; August, 3; September, 2; October, 3; November, 1; December, 0; Total 305.

As in the two previous years of notification only the first case in a family has been notified, unless more than two months had elapsed between two cases. Under these circumstances the second case in a family becomes notifiable.

The cases above mentioned are civil cases. In addition a few military cases occurred as follows:—January, 1; February, 3; April, 9; October, 1; Total 14.

### *Other Infectious Diseases.*

ERISPELAS:—Six cases were notified during the year, compared with 18 cases in 1917.

SMALL POX:—No case of this disease occurred.

PUERPERAL FEVER:—No case was notified.

ACUTE POLIOMYELITIS—One case was notified.

OPHTHALMIA NEONATORUM:—Only 3 cases were notified, none of which proved serious. The School Clinic is available for treatment of cases where this is desirable or necessary.

CEREBRO-SPINAL FEVER:—Three civil cases occurred, one of which proved fatal.

WHOOPING COUGH:—Three deaths occurred from this disease, compared with 10 in 1917, no death in 1916, 5 deaths in 1915 and 4 in 1914.

## *Military Cases of Infectious Disease.*

During 1918 the following cases of infectious disease were notified to the Medical Officer of Health of this Borough by the military authorities:—Measles, 14; Cerebro-Spinal Fever, 1; Diphtheria, 1; Scarlet Fever, 1;

### *Influenza.*

The first appearance of Influenza in this town in 1918 was towards the end of June. At this time the majority of cases were of the gastric type. Hundreds of school children were affected, the chief symptoms of the disease being sore throat, abdominal pain and vomiting. This outbreak lasted for three or four weeks. No deaths occurred at this time, but several council schools were closed on account of the epidemic.

The next outbreak occurred in the third week of October, and lasted until the middle of December. In addition to these two outbreaks during the year there were a few sporadic cases from time to time.

The second outbreak was more serious than the first, and resulted in a large number of deaths. The total number of civilian deaths during the year was 124. In addition there were 11 military deaths, which took place in the Wardown V.A.D. Hospital.

In the second outbreak the disease was of the pulmonary type, the majority of deaths resulting from Pneumonia.

It was not found practicable to utilize the Isolation Hospital for the treatment of cases. The accommodation there is limited, and the distance of the Spittlesea Hospital from the town rendered removal impossible in those cases which were complicated by Pneumonia. A few cases received treatment at the Bute Hospital.

Efforts were made to check the spread of infection in the town by distributing handbills which detailed precautions to be taken. In addition, posters of a similar nature were placed in prominent positions in various parts of the town.

The placards and posters were as follows:—

#### BOROUGH OF LUTON.

#### EPIDEMIC CATARRH AND INFLUENZA.

In view of the prevalence of a widespread and serious epidemic of Influenza, it is of great importance that every precaution should be taken both to prevent the spread of infection and also to protect sufferers from serious results.

#### MEASURES CONCERNING PATIENTS.

**Isolation.**—Every person in a school, factory, workshop, office, or institution who is suffering from a catarrhal cold, with or without a temperature, should, if possible, stay at home for a few days.

**Personal Precautions.**—Infection should not be scattered by coughing or sneezing. A handkerchief should be held in front of the nose and mouth when necessary, and afterwards boiled. Careless expectoration must be avoided.

**Medical and Nursing Attendance** should be provided for serious cases where this is possible. In serious cases the patient should be confined to bed, and allowed absolute rest and quiet until the attack is over. This is most essential in cases which are complicated by Pneumonia. This complication is more liable to occur if the patient gets up too soon. Influenzal Pneumonia is frequently fatal. Chill and over-exertion must be avoided during convalescence to prevent relapse and complications.

**Disinfection.**—After the illness is over, the bedroom and its contents should be thoroughly cleansed and ventilated. General disinfection of premises is not necessary, as infection is derived from personal contact with the sufferer or the mucus from his nose and throat. All expectoration should be burnt immediately. Articles of bedding and clothing should be thoroughly washed.

## GENERAL PREVENTIVE MEASURES.

1. Gargle the throat with a solution of Permanganate of Potash (1 part in 5,000 parts of water) or alum (a teaspoonful to a pint of water), and snuff up the same solution through the nostrils.
2. Avoid all indoor meetings and places of public resort as much as possible, and keep your house well ventilated. Living-rooms should not be overcrowded.
3. Take as liberal a diet as possible, get open-air exercise, and a sufficient amount of rest. Alcoholic excess, and prolonged mental or physical strain should be avoided. Adequate warm clothing is essential to avoid chill.

The individual suffering from Influenza is a public danger, especially when he frequents places of public resort. He ought to take all possible precautions to avoid infecting others, as some of the persons he infects may die as a result of the infection.

WM. J. COX, M.B., Ch.B., D.P.H.,

*Acting Medical Officer of Health.*

THE TOWN HALL,  
LUTON.

The epidemic occurred at a time when it was most difficult to obtain the necessary nursing attendance for cases. Undoubtedly the number of deaths was increased on this account. The Health Visitors and the School Nurses rendered assistance to cases so far as lay in their power. Visits were paid to places of amusement to urge on the managers the importance of ventilation and disinfection, but in the absence of compulsory powers to enforce these measures it is doubtful whether much good resulted from these proceedings. Later, on November 18th an order was issued by the Local Government Board prescribing regulations with a view to preventing the spread of Influenza. It was laid down that an entertainment should not be carried on for more than three hours consecutively. An interval of not less than thirty minutes was to be made between two entertainments to allow buildings to be thoroughly ventilated. The Order of November 18th was followed by another on November 22nd, which substituted four hours in place of three for the duration of the entertainment. By sanctioning a "continuous performance" of four hours the second Order prevented efficient ventilation of places of amusement. The council schools were closed from October 22nd to November 18th on account of the epidemic, and the majority of Sunday Schools were also closed for the same period. In some cases religious services were curtailed at places of worship in accordance with a request from the Medical Officer of Health.

The following table gives the number of deaths throughout the year:—

Deaths from Influenza 1918

Week Ending.	Males.	Females	Total.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upward.	Military Deaths.
Jan. 23rd ...	...	1	1	..	...	...	...	...	1	...	...
Feb. 6th ...	1	...	1	...	...	...	1	...	...	...	...
April 17th ...	1	...	1	...	...	1	...	...	...	...	...
Sept. 30th ...	1	...	1	...	...	...	...	...	1	...	...
Oct. 23rd ...	1	...	1	...	...	...	...	1	...	...	...
„ 30th ...	4	11	15	1	1	2	...	9	2	...	...
Nov. 6th ...	14	17	31	...	5	...	7	13	5	1	3
„ 13th ...	20	11	31	...	2	3	3	16	6	1	2
„ 20th ...	6	8	14	...	1	...	4	9	...	...	3
„ 27th ...	7	8	15	...	1	1	...	12	1	...	2
Dec. 4th ...	4	3	7	...	...	1	1	4	1	...	...
„ 11th ...	1	2	3	...	...	...	...	2	1	...	...
„ 18th ...	2	...	2	...	...	...	...	2	...	...	...
„ 25th ...	1	...	1	...	...	...	...	1	...	...	...
„ 31st ...	...	...	...	...	...	...	...	...	...	...	1
Total ...	63	61	124	1	10	8	16	69	18	2	11

*Spittlesea Isolation Hospital.*

The condition of this institution continues to be exceedingly unsatisfactory with regard to premises and accommodation. The Matron and her staff have

been working under great difficulties for several years, on account of the inadequate accommodation for cases, the antiquated type of some of the buildings used as wards, and the meagre and insufficient arrangements of the administration block.

During the last two years these difficulties have been increased by the fact that it was sometimes impossible to obtain domestic servants and ward-maids. In addition there has been a general scarcity of nurses, which has affected Isolation Hospitals quite as much as other medical institutions.

Great praise is due to the Matron and her staff for the way in which they have carried on the work in spite of the various hindrances mentioned.

Now that the war is over there can be no reasonable excuse for further delay in effecting improvements at Spittlesea. The present institution would be inadequate for the needs of a town with a population of 20,000, but it is a disgrace to a town with a population of 60,000. It is true that during the last two years there has been comparatively little infectious disease in the town of the kind which could be isolated at Spittlesea, but even under these circumstances the Isolation Hospital has proved unequal to emergencies which have arisen on various occasions.

If the institution cannot cope effectually with a small number of cases, such as have occurred during the last year, it is useless to expect it to deal with a big epidemic. This point has been well illustrated in the case of the Diphtheria epidemic in 1914, 1915 and 1916. During these years in which there occurred 568, 301 and 305 cases respectively, it was impossible for the Hospital to deal with the cases which occurred. This state of affairs led to fresh exacerbations of the disease and to a prolongation of the epidemic.

If future epidemics of Scarlet Fever and Diphtheria are to be adequately dealt with in this town, more accommodation must be provided at Spittlesea, or the experience of the recent Diphtheria epidemic will sooner or later be repeated, perhaps not in respect of the same disease. It is impossible to predict what epidemics future years may have in store. One does not wish to be a prophet of evil, but history repeats itself. A study of the table on page 18 showing the number of notifications of Scarlet Fever in the Borough since 1897, shows that a period of diminished activity of this disease has never lasted longer than three, or at the most four years. Thus an epidemic occurred in 1897 followed by an interval of comparatively few cases for 3 years. Then another epidemic in 1901 followed. This was succeeded by an interval of four years. In 1906 an epidemic occurred followed by two years with few cases. In 1909-10 there was another exacerbation with another interval of two years. From 1913 to 1915 there was a serious epidemic. We have now had a respite of three years. Judging by the law of averages as shown by the history of Scarlet Fever epidemics in Luton, an epidemic of this disease is due either in 1919 or 1920. The arrival of epidemics cannot always be prevented. They usually come in fairly regular cyclic waves. It is, however, a wise precaution to be prepared for them. At the present time we are *not* prepared for a large epidemic, either of Scarlet Fever or any other infectious disease. It is high time to put the Isolation Hospital in order at Spittlesea. If the town does not profit from the lessons of the past there may be worse lessons in store in the future. It may be thought that temporary buildings will suffice, but this is not the case. Temporary buildings constructed of wood and galvanised iron are better than none at all, provided they are fairly new, but it would be a mistake to rest satisfied with the provision of further temporary buildings at Spittlesea.

Buildings with wooden floors and walls are unsuitable for use at an Isolation Hospital unless the woodwork is rendered impervious by special treatment. Unpolished woodwork, being pervious, easily absorbs infection. Wooden floors are most unsatisfactory in this respect, unless they are constructed

either of teak or oak. These woods can be polished and rendered impervious by means of a beeswax composition, but ordinary deal boards do not lend themselves to this treatment. Wooden floors have the further drawback that rats burrow underneath them and cause great alarm to the patients by their scurrying to and fro. It is necessary to have a floor of a concrete nature which is impervious and easily cleaned.

In the new scheme at Spittlesea provision of accommodation should be made for cases of the following diseases.

- (a) Diphtheria.
- (b) Scarlet Fever.
- (c) Typhoid Fever.
- (d) Measles.
- (e) Cerebro-Spinal Fever, Acute Poliomyelitis and Acute Encephalitis Lethargica.
- (f) Puerperal Fever.
- (g) Erysipelas.

It is not necessary to provide a separate block for each disease mentioned above, although permanent and fixed accommodation should be provided for the first three mentioned, which are the most serious diseases that have to be dealt with.

The amount of accommodation available for the remaining diseases (d) (e) (f) and (g) may be varied according to their prevalence.

The accommodation necessary is as follows:—

- (a) *Diphtheria*: 2 blocks required, one for admission of fresh cases and the other to act as a discharge block.
- (b) *Scarlet Fever*: Accommodation similar to that required for Diphtheria.
- (c) *Typhoid Fever*: One block.
- (d) *Measles*: It would be useless to attempt the isolation of all cases of Measles. In the first place, at the time of an epidemic the cases are too numerous for this to be attempted, and secondly, this procedure would not materially prevent the spread of infection.

On the other hand it is useful to have a block where serious cases of Measles may receive nursing treatment more with a view to saving life than preventing the spread of infection.

- (e) *Cerebro-Spinal Fever, Acute Poliomyelitis and acute Encephalitis Lethargica*: These three infections being diseases of the nervous system are dealt with together. Only under exceptional circumstances does any of them give rise to a large case incidence, but it is necessary to be prepared to deal with any cases which may arise. At the present time cases of these diseases are left in the houses where they occur. It would be useful to have hospital accommodation for cases of Cerebro-spinal Fever, as these require skilled nursing attendance. In addition, the mortality of cases treated in hospital is much lower than in cases treated at home. All three of these diseases, in fact, require skilled nursing. Further although none of the three is highly infectious as compared with Diphtheria and Scarlet Fever, yet the results are so serious to those who contract one of these diseases that it is desirable to protect the community from them as far as possible.
- (f) *Erysipelas*: In some instances it is desirable to remove cases of this disease from their homes, and accommodation should therefore be provided for it.
- (g) *Puerperal Fever*: Fortunately, cases of Puerperal Fever are not common in Luton, but when occurring they require skilled nursing,

and it is not desirable that they should be attended by a midwife or general practitioner who is in attendance on other maternity cases. Risk of infection would be greatly diminished by removal to an isolation hospital.

The foregoing considerations are a brief statement of what is required in order to provide a satisfactory Isolation Hospital. It remains to decide what steps can be taken in the immediate future in this direction. I consider that it is important to proceed without delay with the scheme which the Sanitary Committee had in hand before the war.

If possible, *permanent* buildings should be erected.

The following Table gives the number of cases treated in the Hospital for Diphtheria and Scarlet Fever:—

Disease.	Sex.	Remaining in at end of 1917.	Admitted during 1917.	Recovered.	Died.	Remaining in at end of 1918.
Scarlet Fever ..	M.	...	9	9	...	...
	F.	...	10	10	...	...
Diphtheria ...	...	...	— 19	— 19	...	...
	M.	4	36	36	3	1
	F.	4	53	50	4	3
	...	— 8	— 89	— 86	— 7	— 4
Total ...	...	8	108	105	7	4

One case (female) of Typhoid was admitted, and discharged recovered.

### *Tuberculosis.*

Owing to the kindness of Dr. C. G. Welch, the County Tuberculosis Officer, I am able to publish the following particulars as to the diagnosis and treatment of cases examined at the Dispensary, Church Street, Luton, in 1918:—

	Insured.	Non-Insured.	Total.
Number of cases examined...	269	162	431
Pulmonary Tuberculosis ...	138	47	185
Surgical ..	13	16	29
Under observation ...	—	5	5
Not Tuberculosis ...	118	94	212
Dispensary Treatment ...	12	22	34
Domiciliary ..	26	—	26
Sanatorium ..	37	8	45
Under own Doctor ...	71	37	108
Left the County ...	5	1	6

The number of attendances of patients at the Luton Dispensary during the year was 5,203.

As in previous years Dr. Welch has kindly examined a number of school children referred to him from the School Clinic, suffering from glandular and pulmonary tuberculosis. Some of these have been sent to the Harpenden Sanatorium.

The following Table gives the number of notifications of Tuberculosis received during the year:—

Form A.	Form B.	Form C.	Form D.	Total.	Actual.
Pulmonary, 129 } 164 Other ... 35 }	...	25 } 25 — } 25	22 } 22 — } 22	176 } 211 35 } 211	129 } 164 35 } 164
... ..	...	3 Duals	8 Duals	3 Pul. Duals	...
... ..	...	...	...	...	...

### *Laboratory Work.*

The diagnosis of cases of Diphtheria has been greatly assisted by the examination of swabs in the laboratory, swabs sent by medical practitioners being examined free of charge. In addition, swabs are taken from the throats of patients in the Isolation Hospital. No patient is discharged until two successive negative swabs have been obtained. During the last 6 years the following examinations have been carried out by the Medical Officer of Health :—

YEAR.	Swabs for Diphtheria Bacilli.			Sputum for Tubercle Bacilli.			Blood for Typhoid Fever.		
	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.
1913	56	30	86	14	26	40	—	—	—
1914	130	383	513	15	50	65	1	—	1
1915	318	1,028	1,346	3	13	16	—	2	2
1916	292	849	1,141	—	4	4	—	2	2
1917	79	388	467	—	8	8	—	—	—
1918	68	323	391	—	5	5	—	—	—

### *Infectious Diseases Notification and Preventive Act.*

The following Table shows the number of cases notified under the provisions of the Infectious Diseases Notification Act each year since its adoption in the Borough :—

Year.	Name of Disease.														Totals.
	Scarlet Fever.	Erysipelas.	Typhoid Fever.	Diphtheria.	Membranous Croup.	Puerperal Fever.	Continued Fever.	Variola.	Choleraic Diarrhoea.	Anthrax.	Acute Polymyositis.	Ophthalmia Neonatorum.	Measles.	Cerebro Spinal Fever.	
1896	236	35	16	13	2	3	1	1	...	...	...	...	...	...	307
1897	185	53	37	12	...	6	6	...	1	...	...	...	...	...	300
1898	75	36	16	39	3	2	2	...	...	1	...	...	...	...	174
1899	43	52	28	50	6	8	1	...	...	...	...	...	...	...	188
1900	62	40	22	11	7	8	2	...	...	...	...	...	...	...	152
1901	268	59	19	12	2	8	2	2	...	...	...	...	...	...	372
1902	89	30	7	17	...	3	4	5	...	...	...	...	...	...	155
1903	68	35	5	18	...	7	...	...	...	...	...	...	...	...	133
1904	65	49	5	4	1	6	1	...	...	...	...	...	...	...	131
1905	30	46	6	7	...	3	...	...	...	...	...	...	...	...	92
1906	180	52	9	103	1	...	...	...	...	...	...	...	...	...	345
1907	92	40	9	103	...	3	...	...	...	...	...	...	...	...	247
1908	49	20	9	56	...	4	...	...	...	...	...	...	...	...	138
1909	177	30	4	73	2	2	...	...	...	...	...	...	...	...	288
1910	123	46	3	32	...	5	...	...	...	...	...	...	...	...	209
1911	74	42	36	45	...	1	2	...	...	...	...	...	...	...	200
1912	57	33	13	22	...	5	...	...	...	...	4	...	...	...	134
1913	321	66	9	166	...	3	...	...	...	...	1	...	...	...	556
1914	246	42	3	568	...	2	...	...	...	...	...	10	...	...	871
1915	128	48	7	301	...	3	...	...	...	...	...	9	...	3	499
1916	43	16	5	305	...	2	...	...	...	...	1	5	237	2	615
1917	23	18	...	110	...	...	...	...	...	1	...	5	886	1	1044
1918	27	6	2	100	...	...	...	...	...	...	1	3	303	3	445
Totals	2661	902	270	2167	24	84	21	8	1	2	7	32	1426	9	7605

### *Housing and Town Planning.*

In accordance with the wishes of the Local Government Board the following table is published showing the action taken during the year to remedy housing defects under the Housing and Town Planning Act :—

## HOUSING AND TOWN PLANNING ACT, 1909.

1. Number of dwelling houses inspected ...	...	...	...	...	...	...	325
2. Number of houses found on inspection } unfit for human habitation ...	...	...	...	...	...	...	50
3. Number of Representations made to } Local Authority ...	...	...	...	...	...	...	None
4. Number of Closing Orders made by } Local Authority ...	...	...	...	...	...	...	None
5. Number of Houses which, after C.O.'s } had been made, were fit for human } habitation ...	None. All defects (50) were remedied without the necessity of a Closing Order.						
6. General character of defects found ...	Broken and defective plaster work, presence of dampness on walls, want of adequate ventilation, blockage of drains, general state of dis-repair.						

**HEALTH AND HOUSING.** The influence of bad housing and of insanitary conditions in general has been recognised for many years. Much attention has been paid to the matter of clearing out insanitary areas in those towns where slum conditions abound. It has been shown by statistics that the health of a given neighbourhood is much influenced by density of population in that area. This is particularly so in the case of tuberculosis. In taking steps for the eradication of this disease due regard must be given to the housing conditions of a district.

**MUNICIPAL HOUSING SCHEME.** In July 1917, the Local Government Board addressed a Housing Enquiry circular to all Local Authorities with a view to discovering how many houses were needed in each district, and what steps were being taken, or were contemplated to meet these needs. The reply of the Luton Council showed that there was a deficiency of about 1,100 houses. This was due to the fact that normally houses are built at the rate of 500 per annum in Luton, but during the three years of war only 316 had been built. It appeared that no housing scheme had been prepared, although several convenient and suitable areas had been laid out before the commencement of the war. The Council were of opinion that private enterprise would step in after the war to resume the building of houses, provided that materials, labour and capital could be obtained at reasonable rates.

Since 1917, the deficiency in housing accommodation has further increased in the town. In addition it has become obvious that, owing to the increased cost of building materials, an increased cost which seems likely to be maintained for a considerable period, private enterprise has been placed at a disadvantage. This is particularly the case in view of the loss which the owners of property would have to face later on when prices fell.

The offer of a Local Government Board grant towards meeting this loss has encouraged Local Authorities to draw up schemes.

In this town the Council propose to erect 1,000 houses during the two years immediately following the war in order to partially meet present and future needs. The question of sites is being considered.

**TOWN PLANNING SCHEME.** This matter is also being proceeded with. The area for town planning has been defined and the number of houses to the acre decided upon. In some portions of the area situated in the Rural District the number of houses will be eight to the acre, whilst in some parts within the Borough and already laid out in streets, twenty houses to the acre will be permitted.

### *Sanitary Conditions of the Borough.*

The Local Government Board has asked Medical Officers of Health to make a report on the sanitary condition of their districts at the close of the war, and on the sanitary needs of the district in future.

With regard to general sanitary conditions in this Borough it cannot be said that they differ much from those of the pre-war period. It is a fact, however, that house property is not in such a good state of repair as before the war, but this state of affairs could not be entirely avoided. Towards the end of the war it was difficult to get the labour to carry out repairs, and at the present time owing to the high cost of labour and materials there is a tendency to postpone the carrying out of necessary repairs.

During the last year however, as in previous years, much has been done to keep property in a state of repair by means of sanitary inspections.

The following list shows the nature of the cases which have been dealt with by the Sanitary Inspector during the year:—

Insanitary Dwellings ... ..	50	Insanitary and defective ashpits ...	6
No receptacles for ashes ... ..	39	Defective Spoutings ... ..	4
Water apparatus to W.C.s out of order	41	Accumulation of manure ... ..	8
Drains and W.C.s blocked ... ..	153	Defective drains ... ..	15
Defective W.C.s... ..	42	Slaughter houses requiring limewashing	5
Workrooms requiring limewashing ...	12	Other nuisances ... ..	19
Defective pavings ... ..	4		
„ floors and ceilings, etc. ... ..	63		
„ ash tins ... ..	100		
		Total ... ..	561

351 notices were served in connection with the above nuisances.

One of the chief after-war problems which has important bearing on health is that of providing sufficient housing accommodation in the Borough, but this will be partly met by the municipal housing scheme.

At the present time there is a great shortage of housing accommodation in the town. In some cases there are two families occupying one house, but this state of affairs is not so common as might be expected. Further demobilisation will, however, undoubtedly accentuate this difficulty. In addition, the development of new industries in the town, owing to the war, will, if some of these industries remain here, cause an increasing demand for houses.

**INSANITARY PROPERTY IN THE BOROUGH.**—Before the war there were various blocks of house property which deserved demolition. In some cases slight improvements have been made to these during the period of the war, but this process of “patching up” does not render them desirable habitations from the point of view of health. Owing to war conditions, however, which caused the shortage of houses, it has been necessary to tolerate the continued existence of a certain number of houses of this type, but it is not desirable that they should be given a much longer lease of life.

**THE INSANITARY TENANT.**—It should be clearly recognised that from a sanitary point of view the housing problem has two sides to it. It is in fact a dual problem which can never be satisfactorily solved until due regard is given to both aspects of the case. It is not merely a problem of bricks and mortar only. There is also the awkward fact of the existence of the insanitary tenant. Until this type of individual is abolished the slum will continue to exist. “Slums” exist both in town and country districts, in fact wherever the slum type of individual congregates in sufficient numbers to stamp the neighbourhood with his own undesirable character. In addition to legislation for the provision of good sanitary houses, there is great need for legislation to deal with those people who are unfit to occupy decent houses. Sanitary authorities should be given powers to prosecute tenants who refuse to keep their houses in a clean and sanitary condition.

**REFUSE REMOVAL AND DESTRUCTION.**—During the year 1918 there has been great difficulty in ensuring a regular weekly collection of household refuse. Whilst this weekly collection is highly necessary and desirable, it has not always been practicable owing to the shortage of labour which has pre-

vailed. It has been just possible to "carry on" with regard to the matters of scavenging and refuse destruction, and this with some difficulty.

If all householders had observed the rule of a "dry dustbin" during the war, things would have been rendered much easier for the department which deals with these matters. Where a fire is available it should be utilised for the cremation of domestic refuse in the shape of tea leaves, potato peelings and many other waste products which should not find their way into the dustbin.

The following table shows the number of loads of refuse collected annually since 1905, also the number dealt with at the Destructor and the number disposed of elsewhere :—

Year.	Loads Collected.	Loads sent to Destructor.	Loads sent Elsewhere.
1905	15,021	7,891	7,130
1906	15,726	12,062	3,644
1907	16,243	13,984	2,309
1908	16,572	13,422	3,150
1909	16,412	12,718	3,694
1910	16,575	13,335	3,240
1911	17,025	15,855	1,170
1912	17,587	14,170	3,417
1913	18,458	16,340	2,118
1914	20,245	16,840	3,405
1915	20,856	16,409	4,367
1916	18,457	16,773	1,674
1917	10,174	9,335	829
1918	10,060	8,694	1,366

The above figures show a falling off both in the number of loads collected and also in the number of loads sent to the destructor. The number of loads dealt with at the destructor is only half the amount of pre-war times. It should be remembered however that the smaller number of loads is mainly due to the discontinuance of the collection of trade refuse during the last two years, and not to the collection of a smaller number of loads of household refuse, which might be assumed from a study of the above table.

The following table shows the number of ash tins and other receptacles in use in the Borough :—

Ash Tins...	...	...	...	10,120
Boxes*	...	...	...	190
Open Ashpits	...	...	...	810
Closed	...	...	...	883
				<hr/> 12,003 <hr/>

\*When boxes are found in use a notice is served, asking for a proper tin to be provided.

### *Factory and Workshop Act 1901.*

By the 132nd section of this Act, the Medical Officer is required to report upon the administration of the Act as regards workshops and workplaces. A copy of such report has to be sent to the Secretary of State. As is to be expected, the number of workshops in which the straw trade is carried on is very large in the Borough of Luton. Generally speaking, the workshops are kept in a very satisfactory condition, the cleanly state of the materials used in the manufacture of hats making such a state of affairs easily obtainable.

The following tables show the details of inspections carried out during the year 1918 under the Act :—

## INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Premises.	Number of Inspections.	Number of Written Notices.
Factories (including Factory Laundries) ... ..	10	0
Workshops (including Workshop Laundries) ... ..	330	10
Workplaces (other than Outworkers' premises) ... ..	61	4
Total ... ..	401	14

## DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

Particulars.	No. of Defects Found.	No. of Defects Remedied.
Nuisances under the Public Health Acts :—		
Want of Cleanliness ... ..	12	12
Overcrowding ... ..	...	...
Other Nuisances ... ..	...	...
Sanitary Accommodation { Insufficient ... ..	1	...
{ Unsuitable or defective ... ..	...	...
{ Not separate for sexes ... ..	...	...
Total ... ..	13	12

## HOME WORK.

OUTWORKERS' LISTS (Section 107) :—			
Nature of Work—Wearing Apparel—Making, &c. :—			
Lists received from Employers sending twice in the year ... ..	..	...	16
Outworkers—Workmen ... ..	...	...	51
Lists received from Employers sending once in the year ... ..	...	...	4
Outworkers—Workmen ... ..	...	...	55
OUTWORK IN INFECTED PREMISES (Sections 109, 110) :—			
Instances ... ..	...	...	33
Orders made (Section 110) ... ..	...	...	33

## REGISTERED WORKSHOPS AND OTHER MATTERS.

REGISTERED WORKSHOPS :—			
Total number of Workshops on Register ... ..	...	...	313
OTHER MATTERS :—			
Matters notified to H.M. Inspector of Factories :—			
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (sec. 5, 1901) :—			
Notified by H.M. Inspector ... ..	...	...	1
Reports (of action taken) sent to H.M. Inspector ... ..	...	...	1

*Food and Drugs Act.*

In connection with this Act 165 samples were submitted to the Public Analyst for examination as follows :—

86 samples of New Milk, 8 each of Butter and Lard, 5 each of Margarine and White Pepper, 4 each of Coffee, Malt Vinegar, and Dripping, 3 each of Sweet Spirit of Nitre, Paregoric, Self-Raising Flour, Mustard and Rice, 2 each of Cocoa, Separated Milk, Cream, Baking Powder, Tincture of Rhubarb and Beef Sausages, and 1 each of Bun Powder, Chocolate Powder, Fribas

Bicartol, Cream of Tartar, Custard Powder, Sal-Volatile, Gregory Powder, Camphorated Oil, Syrup of Rhubarb, Epsom Salts, Pork Sausages, Pale Brandy and Cotton Seed Oil.

Of these, 12 samples were reported by the analyst to be adulterated as shown in the following table :—

Article submitted for Analysis.	Who submitted the Sample.	Result of Analysis.	Sum paid for Analysis.	Observations.
New Milk ...	Sanitary Inspector	Adulterated, 14·0% deficient in fat	10/6	Vendor fined £2
" ...	" "	Adulterated, 13·3% deficient in fat	10/6	Vendor fined £1 and 15/6 costs
" ...	" "	Adulterated, 6·6% deficient in fat	10/6	Vendor fined 10/- & 10/6 costs
" ...	" "	Adulterated, 5·0% deficient in fat	10/6	Vendor fined £1 and 15/6 costs
" ...	" "	Adulterated, 3·0% deficient in fat	10/6	Vendor cautioned
" ...	" "	Adulterated, 4·1% added water	10/6	Vendor fined 15/6 costs, case dismissed
" ...	" "	Adulterated, 6·3% added water	10/6	Vendor fined £1 including costs
Pork Sausages...	" "	Adulterated, 0·7% Boron Trioxide (B2 O3) equal to 8·68 grains per lb. of Boric Acid	10/6	No action taken
Beef Sausages...	" "	Adulterated, 0·3% Boron Trioxide (B2 O3) equal to 3·71 grains per lb. of Boric Acid	10/6	"
" ...	" "	Adulterated, 0·3% Boron Trioxide (B2 O3) equal to 3·71 grains per lb. of Boric Acid	10/6	"
Butter ...	" "	Adulterated, 3·8% of added water in excess of Agricultural Standard (16·0%)	10/6	"
Mustard ...	" "	Adulterated 3·0% of Starch and farinaceous matter. Sold as a mixture.	10/6	"

MARKETS. The Sanitary Inspector visited the Markets regularly during the year, and found that their sanitary condition was usually quite satisfactory. The following articles were inspected at the request of the owners before being exposed for sale, and were found unfit for sale and forthwith condemned and destroyed :—

March 4th, three 6 lb. tins of Plate Brand corn beef; March 5th, two bags of winkles; March 12th, one box of soft roes, and one kipper box of soft roes; March 25th, two 6lb. tins corned beef; March 28th, sixty bloaters; May 13th, five boxes of mackerel; May 14th, one bag of winkles; May 21st, one box of mackerel and one box of conger eels; May 23rd, two boxes of conger eels; May 23rd, 22 lbs. tripe; May 27th, five barrels of herrings; June 3rd, four boxes of mackerel; five boxes of mackerel; and nine boxes of mackerel; June 4th, five boxes of mackerel; June 27th, five hind quarters, ten fore quarters (2,124 lbs.); June 27th, four fore-ends, three gammons, two gammon hocks, one fore-hock, two collars and one corner of gammon (189 lbs.); June 29th, one hind quarter of beef (157 lbs.); July 1st, one 9 stone box of ling; July 9th, one box of mackerel; July 27th, one barrel of fresh herrings; July 22, two hands of bacon; July 29th, one box small hake, and one box of prawn pollock and hake; August 2nd, two boxes of mackerel, and one

carcase of beef (588 lbs.); August 8th, one box of mackerel; August 16th, one fore quarter of frozen beef (139 lbs.); August 17th, 2½ lbs. butter; August 19th, one box of mackerel; August 20th, five tins condensed milk; August 24th, four boxes of kippers; August 26th, thirty-one quarters of frozen beef (4,096 lbs.); October 3rd, one carcase of beef (64 stone); October 12th, 20 lbs. bacon; October 3rd, 54 lbs. bacon; November 20th, one tin of Posy brand condensed milk; November 28th, four tins of evaporated milk, three tins Nestle's milk, four large tins cocoa and milk, one small tin of cocoa and milk, 5 lbs. butter, 3 lbs. lard, 14 lbs cheese, 16 lbs. sugar; December 17th, one carcase of beef (77 stones); December 23rd, three bags of Dr. Allinson's wholemeal flour; and December 24th, about 2 lbs. of butter.

**FOOD CONTROL ORDERS.** The following samples were taken under the Food Control Orders, and presented to the Food Committee :—

6 samples of sausage meat, 2 of marrow and blackberry jam, and cakes, and 1 each of sponge cakes, buns, round of scones, and 4 of beef sausages.

**DAIRIES, COWSHEDS AND MILKSHOPS.** Under the Dairies, Cowsheds and Milk Shops Order, 1885, twelve persons were registered as purveyors of milk. At the end of 1918 the register contained the names of persons keeping cowsheds. The approximate number of cows being milked is 50. There are also 65 purveyors of milk on the register, of whom 11 reside outside the Borough but retail milk within.

**SLAUGHTER HOUSES.** The slaughter houses were regularly visited during the year and on the whole were found to be in a satisfactory condition. 24 licences have been renewed.

**UNDERGROUND BAKEHOUSES.** At the end of 1917 there was 22 underground bakehouses in use. These are visited regularly in order to investigate whether they comply with the regulations.

**TABLE I.—Vital Statistics of Whole District during 1918 and previous year**

Year.	Popula- tion estimated to Middle of each Year.	Births.			Total Deaths Registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.			
		Uncor- rected Number	Net		Number	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number	Rate.					Number	Rate per 1000 Nett Births	Number	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1910	49,000	1233	1233	25·2	559	11·4	...	...	147	119·2	542	11·06
1911	50,500	1223	1223	24·2	670	13·3	19	30	168	137·3	681	13·5
1912	52,750	1202	1204	22·8	572	10·8	19	25	119	99	578	10·9
1913	54,720	1305	1309	23·8	631	11·5	16	28	115	87·8	643	11·7
1914	56,120	1326	1330	23·7	696	12·6	30	46	126	94·7	712	13·0
1915	57,383	1213	1219	21·2	773	13·3	20	52	167	137·0	805	14·0
1916	57,646	1227	1234	21·43	616	11·6	26	16	100	81·0	606	11·4
1917	60,426	1008	1017	16·7	640	11·8	46	40	88	86·5	634	11·9
1918	60,853	984	1000	16·4	721	13·2	53	60	87	87·0	728	13·8

Total Population at all ages ... 49,978 }  
 Total families or separate occupiers 11,205 } At Census, 1911.  
 Area of District—3134 acres.

TABLE III.

Deaths registered during the Calendar Year 1918 classified by Age and Cause.

[illegible]

TABLE IV.—Infant Mortality.

1918. Nett Deaths from stated causes at various Ages under 1 Year of Age.

Causes of Death.			Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.
All Causes	Certified ...	...	35	...	5	3	43	23	10	7	4	87
	Uncertified...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	1	...	...	...	1
Whooping Cough	...	...	...	...	...	...	...	1	...	1	...	2
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	1	...	...	...	1
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis, <i>not Tuberculous</i>	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions...	...	...	...	...	...	...	...	4	...	...	...	4
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	...	...	...	...	4	...	...	2	6
Pneumonia (all forms)	...	...	...	...	...	...	...	3	2	2	...	7
Diarrhœa	...	...	...	...	...	...	...	...	3	2	2	7
Enteritis	...	...	...	...	...	...	...	2	...	...	...	2
Gastritis	...	...	...	...	...	...	...	2	...	...	...	2
Suffocation, overlying	...	...	...	...	...	1	1	...	...	...	...	1
Congenital Malformations	...	...	...	...	...	...	...	...	...	...	...	...
Premature birth	...	...	24	...	...	2	26	2	2	...	...	30
Atrophy, Debility and	...	...	...	...	...	...	...	...	...	...	...	...
Marasmus	...	...	8	...	4	...	12	3	1	2	...	18
Other causes	...	...	3	...	1	...	4	...	2	...	...	6
Totals	...	...	35	...	5	3	43	23	10	7	4	87

Nett Births in ( legitimate, 926.  
the year. ( illegitimate, 74.

Nett Deaths in ( legitimate infants, 75.  
the year of ( illegitimate infants, 12.



