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CITY OF MANCHESTER.

REPORT

ON THE

Health of the City of Manchester,

1915.

BY

JAMES NIVEN, M.A., M.B., LL.D.

MANCHESTER:

HENRY BLACKLOCK & CO. LIMITED, ALBERT SQUARE.

1916.

PUBLIC HEALTH OFFICE,
MANCHESTER,

27TH SEPTEMBER, 1916.

MY LORD MAYOR, ALDERMEN, AND COUNCILLORS,

I have the honour to present to you my Annual Report for the year 1915 on the health of the City. The death-rate for that year, on the estimate of the population taken, was somewhat lower than the death-rate for 1914, though, having regard to the numbers who left the City, it is doubtful whether it was not really as high. The improvement shown in recent years was generally maintained.

On the other hand, the birth-rate was considerably lower than in any previous year, though the marriage-rate rose.

The death-rate from Tuberculosis of the Lungs shows a decided increase in 1915, while there is a diminution in the number of cases notified to the Public Health Department. It may be hoped that this increase in the death-rate is only of a temporary character.

Many difficulties have been experienced in carrying out the work of the Department satisfactorily owing to losses and changes in the Staff, and in some directions the work has suffered.

On the other hand, the work connected with infant welfare has been extended, Measles has been made notifiable by order of the Local Government Board, and Venereal Diseases are about to be added to the list of diseases under public control.

The Statistics of infant welfare would appear to show that useful work is being done in that connection. The scheme approved by the City Council is being steadily proceeded with.

A considerable amount of time has been given to matters arising out of the War, and it appears likely that the requirements in this direction will increase for some time.

iv.

Much time has been devoted by the Chairman of the Sanitary Committee and the Deputy-Chairman to visiting the Hospitals. It may be anticipated that Baguley Sanatorium will be made shipshape in the course of the present year.

There is a considerable amount of enlightened effort being given to such questions as the improvement of the milk supply and the abatement of the smoke nuisance, but the shortage of skilled officers must impede any immediate progress.

The housing question becomes more urgent.

My thanks are due to the Assistant Medical Officers and Clerks for assistance readily given, and for ungrudging work.

I have the honour to be,

Your obedient Servant,

JAMES NIVEN.


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ANNUAL REPORT.

STATISTICAL.

The following are general statistics for the year 1915 :—

Area of the City in acres	20,799
Estimated population at the.. { Males	359,154 }
middle of 1915	{ Females
	387,639 }
	746,793
No. of persons per acre	36
No. of families or separate occupiers at the Census taking, 1911 ..	152,317
Persons married per 1,000 of population in the Manchester Union	20.45
Births in the City of Manchester { Males	8,382 }
	{ Females..... 8,222 }

	16,604
Annual birth-rate per 1,000 of population	22.23
Deaths .. { Males	6,329 }
	{ Females
	5,850 }

	12,179
Recorded annual death-rate per { Males	17.62 }
1,000 of population.....	{ Females
	15.09 }
	persons ...
	16.31
Deaths under 1 year of age per 1,000 births	128.64
Excess of registered births over deaths	4,425
Estimated increase of population during the year	7,557
Percentage mortality occurring in public institutions	31.79
Registrar-General's estimated Civil population.....	700,319
Death-rate based on Civil population	17.39

The statistical statement for the year 1915 must, of necessity, be more meagre than that for previous years. Owing to the large numbers who have joined the Army, the distribution of the population in age groups has entirely altered. Nor is this confined to men, since the alteration in occupations must have considerably affected the distribution of women also. There is great doubt as to the total population of the City. The Registrar-General's estimate is 700,319. But, if we may judge from the great difficulty in obtaining houses, and from other circumstances, it is doubtful whether there has been so great a reduction in the total number of the population. In all probability the estimate of the population made in the usual manner is too high, though

probably not by a large amount. The figures here given are based on the population, as estimated in the usual manner, and the rates are, therefore, probably too low. Deaths of soldiers, even if occurring in Manchester, are not included.

Certain principal figures are given on the front page.

From these we find that the married-rate was 20.45 per 1,000, the birth-rate 22.23 per 1,000, and the death-rate 16.31 per 1,000.

The marriage-rate shows a considerable advance, which would appear still greater if we accept the Registrar-General's figure for the population, and we may expect that the birth-rate will rise from its present low figure.

The infantile mortality remains at the same figure as in the previous two years, a circumstance which cannot be regarded as satisfactory notwithstanding the great improvement attained during the last four years. An improvement is shown for the first three quarters of the year 1916.

The mortality in public institutions is 31 per cent. of the total, being slightly below the figure for 1914. Having regard to the great pressure on hospital accommodation, this must be taken to imply an increased tendency to send cases of severe illness to public institutions.

The distribution of these institutional deaths is shown in the usual table. (Omitted.)

The chief increase in civil deaths over 1914 occurs in Delaunay's Road Hospital of the Manchester Union. An increase in the number of deaths is also shown for the Royal Infirmary and the Withington Institution.

The chief decrease is shown in the Booth Hall Infirmary, which has been converted into a hospital for children. Decreases also occur in Ancoats Hospital, Monsall Hospital, and the County Asylum, Lancaster.

The following figures show the prices of staple commodities, and the number of persons in receipt of relief. These figures throw light on the condition affecting the poorest classes, though they require a table of wages to complete their significance. It will be seen that the average price of each of the staple articles of food, as well as of coal, had advanced during the year. There was less pauperism than in the two preceding years. Undoubtedly, the conditions of the poorest class suffered during this year, though the suffering is irregularly distributed, and the average position of the working classes appears to have improved.

TABLE 1.—TOWNSHIP OF MANCHESTER (MANCHESTER UNION AS FROM 1ST APRIL, 1915).—PRICES PAID BY THE GUARDIANS FOR FLOUR, BUTCHERS' MEAT, AND COAL, ALSO THE AVERAGE WEEKLY NUMBER OF PERSONS IN RECEIPT OF RELIEF, DURING THE YEARS 1909-1915.

YEAR ENDING	PRICES OF PROVISIONS					PAUPERISM		CITY BIRTH- RATE PER 1,000	
	Flour per Sack of 280lbs.	Butchers' Meat, per lb.			Coal, per ton		Average number of Paupers relieved in each week		
		Beef		Mutton	Engine	House	Indoor		Outdoor
		Coarse	Fine						
1909	26/3 to 27/10½	-/3½	-/5½	-/4	9/9	13/3	3875	2049	28·5
1910	26/3 to 27/4	-/3	-/6	-/4	9/6	13/3	3987	1570	27·8
1911	25/4½ to 28/3	-/3	-/6½	-/4	10/4	13/8	3839	1178	25·9
1912	25/10 to 28/6	-/3	-/6½	-/5	12/2	16/3	3640	973	25·1
1913	24/9 to 28/9	-/4	-/6½	-/5	13/1½	16/4½	3431	685	25·6
1914	26/- to 33/6	-/5½	-/7	-/6	13/5	16/7	3414	1039	25·3
*1915	38/- to 48/-	-/7½	-/8½	-/9	17/9	19/8	7388	4565	22·2
		to	to	to	to	to			
		-/8½	-/10½	-/9½	20/-	21/6	.		

* Manchester Union as from 1st April, 1915.

There is manifested at the same time a marked increase in deaths from Heart Disease and other diseases of the circulatory organs.

This would appear again to point to increased strain at all events as part of the cause.

On the other hand, the mortality from Pneumonia shows a great reduction.

Other striking features in 1915 are the high mortality from Measles, and the continued increase in the mortality from Cancer.

When we make a balance of gains and losses in 1915 as compared with the 10 years 1905-14, we find that the largest gains are under Pneumonia, Diarrhoeal Diseases, Whooping Cough, and Diseases of the Nervous System.

The losses are highest under the heads Old Age, Diseases of the Heart and Blood Vessels, and Cancer.

Gains in 1915 per 1,000 persons living, as compared with the average for the 10 years, 1905-1914—(See Table K).

Scarlet Fever	0·04
Diarrhoeal Diseases	0·25
Diphtheria	0·03
Enteric Fever	0·04
Whooping Cough	0·26
Pyæmia	0·02
Tubercular Diseases (other)	0·15

In table 2 are shown the death-rates in the principal divisions of the City, according as the deaths occurred in the Union Hospitals, in Institutions, or at home.

We may compare the death-rates due to deaths in Union Hospitals in these parts of the City with those which occurred in former years. Thus the Union death-rate of the Manchester Township was lower in 1915 than it was in 1912 or 1914, though higher than in 1913.

The death-rate in Union Hospitals for North Manchester in 1915 was lower than in any of the three preceding years.

For South Manchester the Union death-rate was the same as in 1914 and 1912, but lower than the death-rate in 1913.

The monthly figures for persons receiving indoor and outdoor relief show that poverty is less in 1916 than in 1915. There is, therefore, at present a general improvement in social conditions, though those outside the range of this improvement suffer more heavily.

It is useless to pursue the Union death-rates into individual districts, as the general uncertainty as to population is much increased for smaller areas.

Taking the figures for what they are worth, the total death-rate shows a marked improvement in North Manchester as compared with the average for the previous ten years, a considerable improvement in South Manchester, and a falling off in Manchester Township. This agrees with the conclusion reached from last year's figures—that the poorest classes have suffered disproportionately in the last two years.

TABLE 2.—1915.—DEATH-RATES* IN THE HOMES OF THE PEOPLE, IN WORKHOUSES, AND IN HOSPITALS FOR THE VARIOUS DIVISIONS OF THE CITY.

STATISTICAL DIVISIONS	Estimated Populations to middle of 1915	Death-rate per 1000 of persons dying in their own homes	Death-rate per 1000 of persons dying in Workhouses	Death-rate per 1000 of persons dying in Hospitals	Total death-rate per 1000	Mean death-rate 1905-1914
City of Manchester. ...	746,793	11·12	2·96	2·23	16·31	17·22
I. Manchester Township..	108,587	15·08	7·17	3·20	25·45	24·69
II. North Manchester	212,945	10·17	1·18	2·03	13·38	14·50
III. South Manchester	425,261	10·59	2·77	2·08	15·44	16·26

* In this table, every death occurring in a Public Institution has been referred to the District from which the patient originally came.

Table 3 shows that the male and female death-rates stand to each other in the same relation as in previous years.

TABLE 3.
Annual Death-rates—Male and Female.

	Male	Female
1905	19·45	16·31
1906	20·65	17·47
1907	19·52	16·40
1908	19·87	16·47
1909	18·88	16·62
1910	17·37	14·51
1911	18·73	15·64
1912	17·68	14·79
1913	17·31	14·35
1914	18·36	15·28
1915	17·62	15·09

The usual tables, so far as these may properly be compiled, have been prepared for the Appendix.

Table G shows the birth-rates, death-rates, natural rates of increase, and the mean death-rates in 1905-1914 for the whole City, of the three main divisions, and for the Sanitary Districts.

The birth-rate is only 22·23 per 1,000 for the whole City on the estimated population. The individual districts in which it remains fairly high are, in the main, the industrial group.

In some districts the mortality is in excess of the average for ten years. These are Ancoats, St. George's, Crumpsall, Harpurhey, West Gorton, Chorlton-upon-Medlock, Hulme, and Withington. They are, for the most part, the poorer districts.

Table H shows the division of births into legitimate and illegitimate, the rate of illegitimacy, the infantile mortality rate for all births, also for the legitimate and illegitimate births, and the figures of infantile mortality for a period of ten years in each of the main divisions of the City and in its Sanitary Districts.

The percentage of illegitimate births is very slightly above the average of recent years, but the increase is negligible.

The highest proportion of illegitimacy is in the Central District and in Chorlton-upon-Medlock.

As usual, the illegitimate rate of mortality is about double the legitimate.

Table L shows the extent to which causes of death are accounted for.

The proportion of deaths certified by the Coroner, and uncertified, respectively does not differ materially from that in other recent years.

Table E shows for the year a marked rise in the marriage-rate, a marked fall in the birth-rate, and a stationary death-rate.

Table F shows for 1915 a high death-rate from Cancer, Phthisis, Puerperal Fever, and Accidents of Child-birth.

(The above tables have been omitted for this year.)

Table K permits comparison of the death-rates in 1915 at all ages from selected causes for the whole City and its main divisions, and gives the average death-rate for ten years for the whole City from these causes.

From most of the causes there shown the death-rates in 1915 for the whole City compare favourably with the averages for ten years, but are higher from Measles, Tuberculosis of the Lungs, Cancer, and Diseases of the Heart and Circulation.

The death-rates in the Manchester Township are greatly in excess of those in the other two divisions from special causes, in which the same excess is usually present, viz., Measles, Tuberculosis of the Lungs, Diseases of the Circulatory System, Pneumonia, Bronchitis, and Diseases of the Nervous System.

INFANT MORTALITY.

The infant mortality rate is based on the number of deaths of children under one year of age and the number of infants born alive in the year, and is therefore unaffected by the uncertainty as to the population.

It is also independent of the birth-rate.

The table on page 8 shows for a number of years the infantile mortality divided up into the parts pertaining to the first and second three months, and to the last six months of the first year. The total infantile mortality, as we have seen, is the same as in the two previous years. But the distribution is different. The mortality in the first three months of life is lower than in any previous year. The mortality is also low in the second three months. But it is comparatively high in the last six months.

TABLE 4.—INFANTILE MORTALITY.

Deaths per 1000 births at the ages 0-2 months, 3-5 months, and 6-11 months, in successive years.

YEARS	Months of Age			
	0-2	3-5	6-11	Under 1 year
1891-95 (mean)	82.79	40.99	62.97	186.75
1896	78.71	38.11	59.31	176.13
1897	82.31	42.43	69.89	194.63
1898	86.64	42.72	66.51	195.87
1899	88.14	46.49	70.79	205.42
1900	81.42	42.42	64.91	188.75
1901	88.90	42.96	66.60	198.46
1902	73.49	32.23	45.73	151.45
1903	79.91	36.37	52.25	168.53
1904	84.37	42.01	60.34	186.72
1905	78.42	34.05	46.28	158.75
1906	78.65	35.77	54.68	169.10
1907	73.91	30.46	43.07	147.44
1908	76.20	30.09	46.16	152.45
1909	73.20	25.37	36.98	135.55
1910	67.50	23.90	40.44	131.84
1911	79.50	31.81	44.80	156.11
1912	65.31	19.70	37.26	122.30
1913	68.76	24.42	35.52	128.70
1914	68.19	23.16	37.28	128.63
1915	64.38	22.83	41.43	128.64

The excess at this age over 1914 occurs under the heads of Measles, Bronchitis, Wasting Diseases, and other causes.

The rate of mortality in the first year of life has not varied materially during the last three years.

Tables D and J in the Appendix give particulars regarding the causes of death in infancy.

Table D furnishes an analysis of the causes of mortality in the first year of life, while Table J permits a comparison of the infantile mortalities from various causes for the whole City and for its constituent main divisions.

If we compare Table D with the corresponding table for the previous three years, we find that during the first three months proportionately fewer deaths occurred in 1915 from Premature Birth, Atrophy and Marasmus, Found Dead in Bed, and Suffocation; also from Convulsions; that is to say, from that class of disease or accident which it is our main object to prevent. From Whooping Cough also the mortality was relatively small.

In the next three months the relation is not so uniformly favourable.

Proportionately fewer deaths occur in 1915 from Whooping Cough, Convulsions, Lung Diseases, and Found Dead in Bed, but more in 1915 and 1914 from Syphilis than in the previous two years, and more in 1915 from Atrophy and Marasmus than in the previous three years. The unclassified deaths are also in excess.

During the last six months of the first year, 1915 has relatively fewer deaths from Whooping Cough, Tuberculosis, and Convulsions, but relatively more from Measles, Diphtheria, Lung Disease, and Violence. Doubtless the excess under Lung Diseases is largely determined by Measles.

In the second year of life the number of deaths is relatively diminished in 1915 under Whooping Cough and Atrophy and Marasmus, but markedly increased under Measles, slightly increased under Diarrhoea and Lung Diseases, and more decidedly in excess under Violence.

In the third year of life the number of deaths from Whooping Cough is relatively small, and there is slight diminution under Lung Diseases and Scarlet Fever. Under Measles there is excess.

In the fourth year the only marked excess in the number of deaths is under Violence. There is a decided reduction under Whooping Cough and diminution under Lung Diseases, Scarlet Fever, and Diphtheria.

In the fifth year there is excess of mortality under Diphtheria and Brain Disease, and diminution under Scarlatina, Whooping Cough, Lung Diseases, and Violence.

In the total result the death-rate under 5 years of age is comparatively low in 1915.

The infantile mortality in the Manchester Township has increased in 1914 and 1915 relatively to the previous years 1912 and 1913, and relatively to the infantile mortality in the other two main divisions of the City. A larger

proportion of the poorest portions of the City are suffering from the increased price of commodities than in the rest of the City. There appears also, for various reasons, to be greater neglect of children in these parts of the City.

The difference, however, is not very marked between the total infantile mortalities in the Manchester Township in 1915, 1914, and 1913, the figures for 1915 being midway between the figures for 1914 and 1913. When we analyse the figures for the years 1915 and 1912, which show a total difference of 24 per 1,000 births, we find that this is more than accounted for by the differences under three causes, viz., Measles 6, Lung Diseases 6, Diarrhœa 16—total 28.

From the rest of the figures we may infer that the difference under Lung Diseases is due to the excess of Measles in 1915, so that there are only two essential causes for the excess in infantile mortality in the Manchester Township in 1915 over that in the same division of the City for 1912, viz., Measles and Diarrhœa, both causes fluctuating in character. It remains, however, that the mortality has risen in 1914 and 1915 in the Manchester Township more than in the other two divisions of the City.

For North Manchester the infantile mortality is lower than in the three previous years. The death-rate from Measles, so far from being greatly in excess over the death-rate in recent years, was lower than in 1912 or 1914. From diarrhœal diseases it was lower than in 1913, and about the same as in 1914. From Lung Diseases it was lower than in any of the three preceding years.

For South Manchester the infantile mortality was the same as in 1914, and higher than in 1912 or 1913. The relative position of this division in 1915 was thus intermediate between that of the Manchester Township and North Manchester. This is also the relative position of South Manchester in regard to poverty, and it is probable that the differences observed correspond to this fact.

Taking the diseases already mentioned, Measles has a higher mortality in South Manchester than in 1913 or 1914; the mortality from Diarrhœa is higher than in any of the previous three years; the mortality from Lung Disease in infancy is higher than in 1913 or 1914, closely following the order for Measles.

It is probable that the causes of these changes are of an order which will not be easy to affect, notwithstanding that the changes occur in diseases of a fluctuating character.

INFECTIOUS DISEASES.

The diseases included in the Infectious Disease (Notification) Acts, 1889 and 1899, are as follows: Smallpox, Scarlet Fever, Diphtheria, Membranous Croup, Typhus Fever, Enteric or Typhoid Fever, Relapsing Fever, Continued Fever, Puerperal Fever, Erysipelas, and Asiatic Cholera, to which have been added Ophthalmia Neonatorum, Cerebro-Spinal Fever, and Poliomyelitis. The following cases were notified in 1915, and the numbers are compared with the average of the previous ten years:—

	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	Average for 10 Years	1915
Smallpox	6	5	5	...	...	...	..	1	1	...	...	...
Scarlet Fever ...	1,975	3,075	2,732	2,893	3,700	2,324	1,939	1,840	3,715	4,712	2,890	2,922
Diphtheria.....)	530	551	499	546	598	498	472	474	650	746	556	548
Memb. Croup)												
Typhus Fever ...	...	...	1	...	20	2	10	...	...	1	3	...
Enteric Fever ...	345	384	265	393	369	358	256	242	292	156	306	174
Relapsing Fever	...	1	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	82	106	95	101	84	131	130	124	124	104	108	94
Erysipelas	351	383	337	364	371	407	442	396	412	551	401	492
Ophthalmia Neonatorum	...	...	...	...	...	246	443	503	331	414	387	414
Cerebro-Spinal Fever	...	...	...	...	...	...	...	6	1	2	3	15
Poliomyelitis ...	...	...	...	...	...	...	...	55	6	12	24	8
	3,289	4,505	3,934	4,297	5,142	3,966	3,692	3,641	5,532	6,698	4,678	4,667

The deaths from the more common diseases are shown in the following figures:—

Years	Measles	Scarlet Fever	Diphtheria	Enteric Fever	Smallpox	Whooping Cough	Diarrhoea	Phthisis
1904-15 average	357	97	109	58	...	231	578	1098
1915	447	83	105	37	...	70	488	1315

Last year the Annual Returns of the Local Government Board were used for a comparison of the behaviour of Scarlet Fever in successive years in a number of towns with a view to determine whether the course of the disease in successive years was determined by local conditions alone or was also swayed by general climatic influences. It appeared that there is a tendency for the numbers in different towns to ascend and descend in unison. This conclusion is strengthened by a study of the behaviour of Erysipelas, as shown by the same returns. When the figures for 1915 are added to those of 1911-1914 it is seen that there is a decline in 1915 in the number of cases of Scarlet Fever notified in all the towns, except Nottingham and Bradford, and for Erysipelas in all the towns selected, excepting Leicester.

When the figures for Enteric Fever are similarly completed it is seen that, notwithstanding a general decline, increase in the numbers notified occurs in Leeds, Bradford, Manchester, and Salford. This disease is evidently more under the influence of local and fluctuating causes than are Scarlet Fever and Erysipelas.

(Tables not reproduced.)

SCARLET FEVER.

The attack-rate in 1915 was lower than in 1914, though by no means one of the lowest on record. The periodic wave should now descend.

When the numbers of cases notified are stated week by week according to the date of eruption, we find that the usual autumnal ascent is present, though not strongly marked, as is liable to be the case, near the highest and lowest points of the periodic wave. When the attack-rate per 10,000 of the civil population is compared with that of twelve selected towns, it is found to be higher. The highest attack-rate was in North Manchester, the lowest in the Manchester Township. Almost the lowest attack-rates were in Harpurhey and St. George's, which come close to Monsall Hospital, while the highest are in Blackley and Crumpsall at a considerable distance. The type of the disease was mild, the percentage of deaths out of attacks being one of the lowest over a series of years. In recent years, generally, the type of disease has been mild.

When the number of cases and the corresponding number of deaths occurring in successive years of age is tabulated for a number of years, the percentage fatality is seen to be highest in the first year, and to descend year by year up to the seventh year, when it remains stationary up to the age of 25, after which it again ascends, though only slightly.

Eighty per cent. of the cases occurring in 1915 were removed to Hospital, being one of the highest proportions attained.

The rate of return cases was low, as is shown by the figures given in the Annual Report of the Medical Superintendent of Monsall Hospital.

DIPHThERIA.

The number of cases of Diphtheria notified in 1915 was smaller than in 1913 and 1914, following the course of the figures for notified cases of Scarlet Fever. This depends, no doubt, on the considerable number of cases in which the diagnosis of the two diseases is confounded at the apex of the Scarlet Fever periodic wave. But there is no necessary relation between the two diseases.

Thus Diphtheria was at the lowest point in October, when the autumnal ascent of Scarlet Fever reached its highest point.

The attack-rate per 1,000 living was considerably under that in the twelve notification towns. On the other hand the case fatality, 18.8 per cent. was considerably above the figures for 1913 and 1914.

The highest attack-rate of the disease for the years 1891-1914 was at ages 3 to 5. As in Scarlet Fever, the case fatality is highest in the first year of life and tapers down gradually, reaching its lowest point at the age period 20-25, when it remains nearly stationary up to ages 45 and over. The death-rate per 1,000 living in 1915 was somewhat below that for England and Wales generally, as well as that for London and for the 96 great towns.

The attack-rates were highest in Moston and Beswick, and over a continuous group of districts consisting of Cheetham, Crumpsall, Blackley, and Harpurhey—all in North Manchester. The highest case fatalities were experienced in the Central District, Beswick, Clayton, St. George's, Ancoats, Gorton, Crumpsall, and Moston.

ENTERIC FEVER.

BY DR. W. ST. C. McCLURE.

The number of cases of Enteric Fever notified in Manchester and accepted in 1915 was 174, the attack-rate being .23 per 1,000 of the population.

Table I. shows that the death-rate was .06 compared with .04 for England and Wales.

TABLE I.

INCIDENCE OF AND DEATH-RATE FROM ENTERIC FEVER IN MANCHESTER.

Number of notified cases, deaths, and death-rates per 1,000 living from Enteric Fever in each of sixteen successive years.

YEAR	1900	1901	1902	1903	1904	1905	1906
No. of cases notified	378	359	378	387	325	345	384
No. of deaths	75	75	66	93	66	55	83
Death-rate — Man- chester	0.14	0.14	0.12	0.17	0.12	0.09	0.14
Death-rate — Eng- land and Wales..	0.17	0.16	0.13	0.10	0.09	0.09	0.09

YEAR	1907	1908	1909	1910	1911	1912	1913	1914	1915
No. of cases notified and accepted . .	265	393	369	358	256	242	292	156	174
No. of deaths	37	75	71	62	46	43	47	34	46
Death-rate — Man- chester	0.06	0.11	0.13	0.09	0.07	0.06	0.06	0.05	0.06
Death-rate — Eng- land and Wales..	0.07	0.07	0.06	0.05	0.07	0.04	0.04	0.05	0.04

Other tables which it has been customary to print have been compiled and recorded in the Office, but are omitted here to save space.

MILITARY CASES.

The 174 notifications include 30 cases in soldiers between the ages of 19 and 34 who were infected outside Manchester, and amongst whom there were 7 deaths. Of these Military cases Chorlton-upon-Medlock was credited with 13, Central 11, Harpurhey 3, and Blackley, Bradford, and Rusholme with one each. They were distributed through the year as follows:—First quarter 12 cases, second quarter 6, third quarter 6, and fourth quarter 6. In reading this statement and the recorded tables, therefore, due allowance should be made for those cases which were brought into the City for treatment only.

DISTRIBUTION OF THE DISEASE.

The attack-rate varied considerably in the various districts, the rate being highest in Rusholme (.88), and higher than usual in Central (.86), Beswick (.49), and Chorlton-upon-Medlock (.45). On the other hand, no cases occurred in Moston, and the rate in Levenshulme and Withington was .09 and .07 respectively.

Tabulation of the attacks in weeks according to the date of onset shows that in the first quarter there were 48 cases; second quarter 49; third quarter 39; fourth quarter 38. It will be noted that there was an entire absence of the autumnal rise.

ASCERTAINED CAUSES OF INFECTION.

Including the Military patients, 36 cases were infected outside Manchester. Direct infection from cases already notified accounted for 20; 5 were due to a small milk-borne outbreak at the beginning of the year, which was described in the Annual Report for 1914. Cases associated with the eating of mussels at a time prior to the illness compatible with infection being derived therefrom, and in which no other cause could be traced, numbered 22. There remain 81, or 46 per cent. of the total, where no likely source of infection was discovered. In a number of these there has been a habit of eating oysters, cockles, ice-cream, fish and chips, or watercress, but the evidence obtained was not sufficient to incriminate any of these foodstuffs.

Towards the end of the year specimens of blood were taken from some of the family contacts, and five persons were found whose blood gave a positive Widal reaction, showing that in all probability they had at some time suffered from Typhoid Fever, although no history of such an illness was forthcoming. Further investigation proved that they were not actively infective, but the results obtained from this procedure of examining family contacts which has been systematically adopted during 1916 tends to confirm the view that the overlooked case is an important factor in the spread of the disease.

BACTERIOLOGICAL WORK.

The bacteriological work of the year, carried out by Professor Delepine for the Public Health Office, is given in the table on next page.

Other Investigations

Month	Diphtheria			Typhoid			Tuberculosis					
	Total		Total	Total		Total	Sputum		Milk		Total	
	+	-		+	-		+	-	+	-		
January	29	92	121	12	34	46	84	171	1	6	7	L.B. 7,359, urine for T.B. L.B. 7,377, cerebro spinal fluid. L.B. 7,499 C.S.F. 5 spinal fluid.
February	37	97	134	7	21	28	60	159	..	..	..	L.B. 7,416-10-13 naso-phar swabs. L.B. 7,424-20 C. spinal fluid. L.B. 7,470 C.S.F. 57 C. spinal fluid. L.B. 7,476 C.S.F. 60 naso-phar swab. L.B. 7,478 faeces for B. typh. L.B. 7,480 C.S.F. 61 C. spinal fluid. L.B. 7,497. W.B. 1686. W.C.B. 1,174
March	16	110	126	13	30	43	63	146	..	2	2	L.B. 7,480 C.S.F. 62-69 naso-phar swabs. L.B. 7,484 C.S.F. 72-75 naso-phar swabs. C.S.F. 77-81 naso-phar swabs. C.S.F. 91 C. spinal fluid. C.S.F. 93-97 naso-phar swabs. L.B. 7,501 urine and faeces for B. typh.
April	7	68	75	9	23	32	66	158	..	..	..	C.S.F. 101-102 naso-phar swabs. C.S.F. 103 C. spinal fluid. C.S.F. 105 naso-phar swabs. C.S.F. 113-115 C. spinal fluid. C.S.F. 116 naso-phar swabs. C.S.F. 117 C. spinal fluid. C.S.F. 121 naso-phar swabs. C.S.F. 178-202 C. spinal fluid C.S.F. 203-204 naso-phar swabs. C.S.F. 213 C. spinal fluid.
May	9	107	116	13	26	39	82	191	..	2	2	L.B. 7,589. W.B. 1,758. L.B. 7,604 C.B. 1,620 tincture for abortifacients. L.B. 7,613. W.B. 1,786-7.
June	8	66	74	13	31	44	69	113	..	3	3	C.S.F. 253 C. spinal fluid. C.S.F. 254-258 naso-phar swabs. C.S.F. 259 C. spinal fluid.
July	11	79	90	8	28	36	77	162	8	20	28	C.S.F. 260 C. spinal fluid. C.S.F. 262, 263 C. spinal fluid. L.B. 7,825. W.B. 1,908-9.
August	14	60	74	2	21	23	59	96	1	18	19	L.B. 7,853. W.B. 1,921-2. L.B. 7,880 faeces for B. typh. L.B. 7,899. W.B. 1,970. L.B. 7,907 pus from cervical gland. L.B. 7,951. W.B. 1,991. C.S.F. 273-279 naso-phar swabs.
September	18	98	116	15	19	34	54	104	2	10	12	C.S.F. 260 C. spinal fluid. C.S.F. 282 naso-phar swab. C.S.F. 299 C. spinal fluid. C.S.F. 285-7 naso-phar swabs. C.S.F. 292-4 C.S.F. 300-305 naso-phar swabs. C.S.F. 306 C. spinal fluid. C.S.F. 307-311 naso-phar swabs. L.B. 7,967. W.B. 2,001-2. L.B. 7,969. W.B. 3,903. L.B. 7,989. W.B. 3,013-14.
October	15	198	213	16	31	47	131	201	..	13	13	
November	15	122	137	11	30	41	51	118	2	14	16	
December	29	153	182	7	29	36	51	103	1	17	18	
Total	208	1,250	1,458	126	323	449	78	1,652	15	105	120	

MEASLES.

Table 1 shows the number of deaths from this disease in the City of Manchester divided up according to the ages at which they occurred. It will be seen that in the year 1915 the fatality was comparatively high, the highest number of deaths occurring, as usual, in the second year of life.

TABLE I.
DEATHS FROM MEASLES IN THE CITY OF MANCHESTER.

Years	Under One Year			Years of Age				Total 5 Years and upwards
	Under 3 Months	3-5 Months	6-11 Months	1-	2-	3-	4-	
1899- 1908 }	16	57	742	1470	599	338	168	168
1909	2	6	78	164	58	37	16	35
1910	2	2	76	118	39	21	15	18
1911	1	7	73	152	47	30	16	11
1912	4	8	99	163	88	58	38	32
1913	5	3	62	98	37	20	19	15
1914	1	3	62	127	54	19	9	18
1915	1	5	98	215	64	29	20	15

Table 2 shows the distribution of deaths in quarters, the highest numbers occurring in the second, and the next highest in the first quarters.

TABLE 2.

YEAR	1st Quarter	2nd	3rd	4th
1902	67	68	60	47
1903	158	104	54	29
1904	100	189	83	53
1905	41	99	77	13
1906	60	266	118	32
1907	51	73	50	55
1908	116	78	71	101
1909	155	164	45	32
1910	32	118	71	70
1911	48	197	61	31
1912	214	211	28	37
1913	85	105	58	11
1914	37	132	50	74
1915	153	224	39	31

Table 3 affords a comparison between the death-rates from Measles in Manchester and other districts. As usual, the death-rate is above that for London, and also for the 96 great towns

TABLE 3.—1915.—MEASLES MORTALITY.—RATE PER 1,000 LIVING, COMPARED WITH MEAN OF FIVE YEARS.

	Mean 1910-14	1915
England and Wales	0·29	0·43
96 Great Towns	0·39	0·50
London	0·41	0·50
City of Manchester	0·46	0·60
Manchester Township	0·76	1·44
North Manchester	0·42	0·38
South Manchester	0·42	0·50
148 Smaller Towns	0·29	0·52
England and Wales (less the 244 Towns)	0·18	0·32

The distribution of the deaths in districts is shown in Table 4. The disease was exceptionally severe in the Manchester Township and in Hulme. The fatality is closely bound up with poverty.

(Table omitted.)

The notification of Measles to head teachers, and subsequently by the Education Authority to the Medical Officer of Health, with the administration consequent thereon, continued. The total number of cases reported during the year was 3,520, which is very small, having regard to the high mortality.

No doubt this measure has been useful in securing a partial control over the disease, and the notifications made thereunder will serve to supplement and check notifications received under the Order of the Local Government Board.

WHOOPIING COUGH.

This disease visited Manchester very lightly during 1915. This is exceptional, and still more exceptional is the slight fatality in the Manchester Township.

(Table omitted.)

The following table shows the number of cases of Measles and Whooping Cough reported month by month to the Public Health Office by the Education Department as having been notified, under a Local Act, to the Head Teachers of Schools, or otherwise ascertained.

THE NUMBER OF CASES OF MEASLES AND WHOOPING COUGH NOTIFIED
MONTH BY MONTH.

Month	Measles	Whoop- ing Cough	Month	Measles	Whoop- ing Cough
			Brought forward	2716	497
January	176	35	July	301	29
February	344	36	August	56	21
March	576	85	September	71	36
April	509	92	October	119	36
May	480	106	November	116	54
June	631	143	December	141	124
Carried forward..	2716	497	Total	3,520	797

DIARRHŒA AND SIMPLE CHOLERA.

The total number of deaths in 1915 was 488, which is about 100 deaths below the average for the previous five years. The usual autumnal wave extended well into November, though the number of deaths in the fourth quarter was only one-half of the number in the third quarter. The deaths under two years of age per 1,000 births were 26.56, which is above the corresponding figure for London and the 96 great towns, though not greatly. The mean temperature in the third quarter was below the average of mean temperatures for the years 1891-1914. The rainfall was somewhat above the average, and the humidity was slightly in excess.

In the third quarter the death-rate per 1,000 living was, however, less than one-half of the death-rate for 1891-1914.

The districts which suffered most heavily in infantile deaths from this disease were the Central, Ancoats, St. George's, and Hulme, and after these—at a considerable interval—Bradford, Chorlton-upon-Medlock, and Harpurhey.

Considerable attention is being paid to the reduction of diarrhœal mortality.

This mortality ascends annually during the hottest period of the year, and strong reason has been given for believing that the rise is largely produced by the transference of infection by the housefly. Therefore it becomes important to limit as much as possible the numbers of the housefly. This could be done very effectually if all horse manure were completely cleared away and taken to a distance from the City once a week. Despite the most strenuous efforts, this has not been found possible during the present year. The action possible to be taken is defined by the Public Health Act, 1875, and by local bye-laws.

By the local bye-laws, if manure is not completely removed at least once a week, the person in default is subject to a penalty. It is considered necessary, however, to show by actual observation that the manure has not been removed during that period, and the strain thus thrown on the administration is too great to be permanently maintained. The Public Health Act gives power to step in and either remove the manure or get it removed when in the opinion of the Inspector of Nuisances it is a nuisance. This is a more promising line of action. But, as a matter of fact, owing to shortage of men in the Cleansing Department, this department found itself unable to deal with the matter. It was hoped that the difficulty might be overcome through Contractors, but the same difficulty was experienced.

Various devices have been tried for preventing flies from breeding in horse manure, but with very limited success.

Apparently a most promising line of action is that described by Dr. Copeman, in a paper issued by the Local Government Board, by packing manure.

Another line of action is to keep the manure dry, putting it up in porous containers, which allow the liquid completely to strain away. This, again, may ultimately help considerably. But it involves a complete change in the modes of storing horse manure, and it is not always convenient. If the litter used be straw it is not clear that it will be successful. Still another method is to keep fowls, a procedure which, however, is not generally applicable.

By one or another measure—in normal times—it may be found possible greatly to limit the production of flies.

Handbills are widely issued giving instructions as to the prevention of Diarrhœa, and also giving elementary instructions in first aid. The most important factors are cleanliness and attention to the child from an early age. It is believed that progress in these directions is being made with the assistance of the Health Visitors and Infant Welfare Centres.

OPHTHALMIA NEONATORUM.

BY DR. M. A. C. DOUGLAS-DRUMMOND.

During the year 1915, 678 cases of Inflammation of the Eyes were notified from various sources, and visited by the Eye Nurses.

Of these, 36 were cases of disease in children and adults: 23 suffered from simple Conjunctivitis, 2 had Blepharitis, 5 suffered from Keratitis, 2 from Phlegetenular Conjunctivitis, 2 were cases of Ophthalmia following an attack of Measles, 1 was Glioma, and 1 Congenital blindness.

642 cases of Inflammation of the Eyes of newly-born children occurred. Of these, 414 were notified by the medical attendants (either private or at the Royal Eye Hospital) as cases of Ophthalmia Neonatorum. The remaining 228 cases were notified by midwives, but the medical attendants considered them to be cases of Conjunctivitis only.

The following table shows the distribution of cases both as regards the districts in which they occurred and the month of the year. The cases in which the corneae were affected are shown on the first table also.

The largest number of cases of true Ophthalmia occurred in Hulme, Chorlton-upon-Medlock, St. George's, and Ardwick.

The monthly rate of notified cases varies considerably, and there seems to be no special reason for the rise and fall in numbers.

January, September, and June head the list, followed by April, May, July, and August, while in the previous year the largest number of cases were notified in August and September.

TABLE A, 1915.—SHOWING THE NUMBER OF CASES OF OPHTHALMIA NEONATORUM NOTIFIED MONTH BY MONTH IN DISTRICTS.

Month of the Year	January	February	March	April	May	June	July	August	September	October	November	December	Total	Cases not Notified	Cases with Corneal Complications
Ancoats ..	4	4	2	4	..	2	4	3	6	..	1	1	31	34	7
Central ..	..	2	..	1	1	2	1	1	2	..	..	..	10	5	1
St. George's ..	5	2	3	3	2	5	4	2	7	2	3	4	42	19	5
Cheetham ..	2	2	..	..	2	1	..	1	1	2	..	1	12	5	2
Crumpsall ..	1	..	..	..	1	1	..	..	..	..	2	1	6	1	..
Blackley ..	..	..	1	..	..	1	..	..	1	..	..	..	3	..	..
Harpurhey ..	1	..	..	..	..	..	..	1	2	1	2	..	7	6	..
Moston ..	1	..	..	..	1	1	..	1	..	..	..	..	4	2	..
Newton ..	1	1	2	1	3	..	1	1	2	..	..	..	12	9	2
Bradford..	1	2	..	2	..	..	..	1	..	1	..	..	7	19	1
Beswick ..	3	1	1	1	..	2	1	1	1	..	..	2	13	19	1
Clayton ..	..	..	..	..	..	..	..	..	1	..	1	..	2	1	..
Ardwick ..	3	3	5	1	3	6	2	2	5	4	..	4	38	14	..
Openshaw ..	3	2	1	2	..	..	2	2	..	3	1	1	17	6	3
West Gorton ..	1	1	1	2	6	1	1	2	2	1	..	2	20	11	2
Rusholme ..	6	..	..	..	..	1	1	..	1	..	..	1	10	8	1
Chorlton-upon-Medlock ..	7	5	3	6	8	6	4	2	7	1	4	4	57	11	7
Hulme ..	6	3	5	7	6	10	9	10	5	7	3	1	72	29	8
Moss Side ..	1	3	2	..	..	..	1	..	1	3	..	..	11	2	3
Withington ..	1	..	1	..	..	2	1	1	1	2	1	..	10	2	2
Gorton ..	3	2	3	5	1	2	2	3	1	..	2	..	24	22	4
Levenshulme ..	..	1	1	..	1	..	1	1	1	..	..	..	6	3	1
CITY..	50	34	31	35	35	43	35	35	47	27	20	22	414	228	..
Cases with Corneal Complications *	4	2	2	2	4	6	6	4	4	3	2	4	43	7	50

* Including the 3 Cases in older Children from Keratitis and 2 following Measles.

The tables have been constructed as in last year's report, and explain themselves.

Amongst the Conjunctivitis cases, in 28 instances other children in the family had had eye troubles, and in one as many as 9 children had been infected at birth; in another, 5; in still another, 4; while in many instances more than one of the previous children had suffered from Ophthalmia.

In 47 cases where the infants were suffering from Ophthalmia Neonatorum there was a history of eye trouble in other children at birth.

HISTORY OF MOTHER.

TABLE B--1915. OPHTHALMIA NEONATORUM.

	Age of Mother				Parity										Labour		Attendant not present at birth	No. of mothers having had previous cases of Ophth. Neon.	History of yellow discharge	Legitimacy		Definite history of delay in advising Medical assistance and Midwife attending case	
	—20—25	25—30	35 and Over	Not ascertained	Total	1	2	3	4	5	6	7	8	9+	Not Ascertained	Normal				Abnormal	Legit.		Illegit.
Notified ..	116	138	88	66	6	108	79	68	43	26	18	23	18	31	0	377	57	53	51	160	389	25	9
Not notified	44	69	50	62	3	50	40	29	19	13	15	13	33	3	209	19	36	28	64	222	6	1	

Total cases notified 414 = 642
 Total not notified 228

TABLE D.—CASES WITH INVOLVEMENT OF THE CORNEA.

Right Eye	13
Left Eye	22
Both Eyes	15
	—
	50
	—

Table E shows the results of the 414 cases of true Ophthalmia, and of the 228 of Conjunctivitis in newly-born infants :—

	Complete Recovery	One Eye Lost, Other Normal	One Eye Lost, the other Damaged	Both Eyes Lost	Both Eyes Damaged	One Eye Damaged	Death before recovery	TOTAL
Notified	39	1	0	0	0	0	3	43
Not notified	2	0	0	0	0	0	0	2
Other than Oph. N. :— 3 Keratitis, 2 following Measles	0	1	0	1	2	1	0	5
	41	2	0	1	2	1	3	50

The number of cases with corneal involvement was 50 in all, of which the results are very satisfactory, as 41 have completely recovered. In 3 instances death occurred from causes other than Ophthalmia before the infants' eyes were better.

In the case in which both eyes are recorded as lost, the child, aged 2½ years, who had previously suffered from Ophthalmia Neonatorum, was suffering from Measles, and when the case was brought to the notice of the Public Health Authorities both corneae had ulcerated. Of the 2 cases in which one eye is reported lost, in 1 the child, aged 2 years, was suffering from Measles, and admitted into Withington Institution Hospital; the other case was due to Ophthalmia Neonatorum, and was an inmate of the Royal Eye Hospital.

Of the three notified cases in which death occurred, one had recovered from Ophthalmia and the other two were progressing satisfactorily, and would have ultimately cleared.

The total numbers of cases of Ophthalmia and Conjunctivitis in newly-born infants were: in 1911, 525; in 1912, 667; in 1913, 573; in 1914, 681; and in 1915, 642. The percentage of cases with corneal complications in 1911 was 7·23, as compared with 11·39 in 1912, 12·04 in 1913, 9·25 in 1914, and 7·79 in 1915.

During the summer months two temporary nurses were appointed to assist the two nurses who were appointed in 1911, and they have continued the work in 1915 in a most efficient manner. The routine followed has not been altered.

The notification of Ophthalmia Neonatorum as an infectious disease has been most advantageous, as the cases are now notified earlier, and the risk of corneal complications thus minimised.

CEREBRO-SPINAL FEVER.

BY DR. W. ST. C. McCLURE.

15 cases of Cerebro-spinal Fever, in 14 of which the diagnosis was confirmed bacteriologically, occurred during 1915. In addition, there were three cases amongst soldiers which are not further considered here.

Monthly distribution.—February, 2 cases; March, 3; April, 4; July, 1; October, 1; November, 2; December, 2.

Distribution in districts.—Ancoats, 1; Cheetham, 1; Ardwick, 1; Openshaw, 2; West Gorton, 1; Chorlton-upon-Medlock, 3; Gorton, 3; Levenshulme, 2; Hulme, 1.

There was no epidemic, the disease showing little sign of infectivity. The nearest approach to anything like consecutiveness in the occurrence of cases in any one district was that of cases 1, 2, and 4 in Gorton on February 6th, February 18th, and March 1st, but no connection between them was traced.

Age incidence and fatality.—Under 1 year, 7 cases; 1–5 years, 4; 5–15 years, 2; over 15 years, 2. Two children, aged 1 and 7 years, recovered. 13, or 86·7 per cent., ended fatally.

Infectivity.—Amongst 64 family contacts there was no spread of infection. One child developed a sore throat, but there was no positive evidence that this was an abortive case of Cerebro-spinal Fever. In 5 cases there had been close contact with soldiers, but investigation did not confirm the suspicion that the disease was so carried. Naso pharyngeal swabs were taken from 52 family contacts. In 1 instance only was a positive result obtained, and no spread of infection was traced to this carrier.

Symptoms.—Analysis of the symptoms must here be omitted. Purpuric or petechial rashes were noted in five cases, all of which ended fatally.

Diagnosis.—It is not possible to form a correct diagnosis with certainty from the clinical signs and symptoms. One case in which the onset of illness was sudden, and where death occurred in a few hours, was due to the tubercle bacillus. Another, where the onset was more gradual and otorrhœa was present,

proved to be Cerebro-spinal Fever. Other cases presenting the classical features of Cerebro-spinal Fever have been shown to be pneumococcal or septic infections. Lumbar puncture and examination of the cerebro-spinal fluid is therefore the only sure means of arriving at a correct diagnosis.

Other forms of Meningitis.

41 cases of illness simulating Cerebro-spinal Fever were brought to the notice of the Medical Officer of Health and specially investigated by Dr. McClure. Either a lumbar puncture or a post-mortem examination was made in each case. 18, accepted as true cases of Cerebro-spinal Fever, have already been referred to. The diagnosis in the remaining 23 cases was as follows:—

Certainly.—Tubercular Meningitis, 4; Septic Meningitis, 2; Pneumococcal Meningitis, 4; Hysteria, 1; Alcoholic Gastritis, 1—total, 12.

Probably.—Tubercular Meningitis, 2; Pneumonia, 3; Septic Meningitis, 1; Influenza, 4; Diarrhœa, 1—total, 11.

Apart from these, and apart also from Tubercular Meningitis, from which there were 111 deaths, there occurred 130 deaths certified to be due to Meningitis. In such cases a letter was sent to the practitioner concerned, but the replies received threw little or no light on the cause of the illness. One of the Public Health Medical Staff is always prepared to visit and obtain a specimen of cerebro-spinal fluid for examination, and the neglect of this simple procedure in so many doubtful cases is to be regretted.

ACUTE ANTERIOR POLIOMYELITIS.

During the year 10 cases were notified and investigated by Dr. McClure. In 2 of these the diagnosis was revised to rickets and hysteria respectively. There were, therefore, 8 cases in which the diagnosis was finally adhered to.

The disease did not spread amongst contacts in the affected households. In 1 instance the source of infection was traced with considerable degree of probability to contact with a child outside the City who was already suffering from the disease. The facts were as follows:—

A Manchester boy aged 3 years began to be ill on August 2nd, paralysis of the left leg being noticed the next day.

On July 27th this boy with his mother had visited some friends in N ———, and whilst there had played with a child aged 2 years. This latter child had been poorly with vomiting and drowsiness on July 25th, and was paralyzed on July 28th. If this was the origin of infection in the second case, then the incubation period was 6 days.

(The table showing the ages of those attacked and the result of their illness is omitted here to save space.)

MATERNITY AND CHILD WELFARE.

During the year 1915 the energies of the Infant Life Preservation Sub-Committee have been directed chiefly to the consideration of a scheme which should give effect to the Circular and Memorandum of the Local Government Board dealing with Maternity and Child Welfare, dated 30th July, 1914. It should be mentioned that the Maternity Section is being dealt with separately by the Midwives Supervising Committee.

The subject was first considered at a meeting held on September 10th, 1914, when a preliminary scheme was submitted by the Medical Officer of Health. It was then resolved to submit the scheme to the Local Government Board. This was done on October 6th, and, generally speaking, it was approved. With a view to the preparation of a complete scheme, a Special Sub-Committee was appointed, authorised to confer on the subject with the various bodies whose interests were concerned.

Representations from public bodies were received, urging the Committee to proceed with the work.

On January 26th, 1915, a revised scheme by the Medical Officer of Health was considered, and approved so far as the Sanitary Committee was concerned, subject to the Local Government Board agreeing to make a grant of one-half of the annual expenditure proposed to be incurred in carrying it out.

These proceedings were referred back for further consideration by the City Council at its meeting on February 3rd. Accordingly the Medical Officer of Health was instructed to prepare a modified scheme, and a special meeting of the Infant Life Preservation Sub-Committee was held on February 24th to deal with it. Various suggestions were then made in regard to the financial statement, and a further meeting was arranged to be held on March 24th. This was held, and the following resolution was adopted :—

“ That the following report and financial statement be approved and presented to the City Council.”

(The report here alluded to is not reproduced for reason of economy.)

The scheme in its final and reduced shape consisted of three parts :—

1. The provision of four new Centres for consultations and clinics.
2. Taking over the medical and nursing work being carried out at the six Centres already established by the School for Mothers ; the social work being left under the School for Mothers.
3. The opening of two Centres, not necessarily separate Centres, for guidance and aid to pregnant women.

As regards taking over the medical and nursing work of the School for Mothers, a resolution was passed at the meeting held on March 24th in these terms :—

“ That the Infant Life Preservation Sub-Committee agree to take over the Public Health work (Infant Consultations, Health Visiting, etc.) hitherto carried on by the Manchester School for Mothers at their various Centres, it being understood that the School for Mothers will continue their social and educational work and extend it to the new Centres to be established by the Infant Life Preservation Sub-Committee.”

Much time was occupied in visiting and considering various Centres which could be utilised in fulfilment of the first part of the proposals.

Finally two were selected, and schemes were prepared, with the assistance of Mr. Irvine, for adapting and equipping these Centres. Considerable difficulty has been experienced in settling the final agreements for taking these Centres. The feeling was very strong that the new Centres should be purchased, but it was finally settled that they be taken on lease for a number of years.

One of these Centres is now in process of alteration. The agreement in respect of the other is not finally settled.

A considerable amount of work fell to the Town Clerk's Department in arranging agreements with the School for Mothers and with the landlords of the Centres taken over from the School for Mothers.

There were to be at first four Centres to be used as Clinics as well as for consultations—that is to say, Centres at which treatment would be given. This treatment was only to be given when the family income fell below the limit fixed by the Midwives Supervising Committee for assistance under the regulations of the Central Midwives' Board, and the family income was to be ascertained by enquiry on the part of the Charity Organisation Society.

In order to avoid delay in the inception of such treatment, two of the existing Centres transferred from the School for Mothers were adapted, with the assistance of Mr. Irvine, and the equipment was worked out by Capt. Young—now serving abroad. These are now in full operation. In addition to the Clinics held by the Medical Officer to the Centres, additional Clinics are held once a week by Capt. Lapage and Dr. Ashby at the Clinics.

The staff transferred from the School for Mothers consisted of the Medical Officer, Dr. Weizmann, and the Superintendents of the Centres, viz., Miss Macdonald, assisted by Miss Warwick for Rosamond Street and Mill Street, Ancoats, Miss Houghton for 1, Manipur Street, Openshaw, Miss Shaw for Collyhurst, and Miss Hardy for West Gorton and Lord Street, Cheetham.

In addition, two nurses were handed over who were carrying on special work in Bradford and Openshaw—Miss Warburton and Miss Proctor.

Dr. Weizmann's services were very highly appreciated, and it was a matter for general regret when she left to join her husband in London, but the Corporation are fortunate in her successor, Dr. G. H. Hickling.

Miss Houghton, Miss Hardy, and Miss Proctor have left, and been replaced.

The numbers attending continue to grow, and expansion in the staff becomes necessary.

The Committee have been fortunate in the lady who was appointed to fill the vacancy created by Miss Howard's death. An Assistant Superintendent has been appointed. The Clerical Staff has been made adequate. The number of Health Visitors also has been gradually increased to cope with the work falling on the Health Visiting Department. This work has been greatly augmented by the Order of the Local Government Board making Measles and German Measles notifiable diseases. It will also be necessary that the work done under the Local Clauses in respect not only of Measles and German Measles, but also of Whooping Cough, shall come into this department. The staff is now constituted as follows :—Superintendent, Assistant Superintendent, four Clerks, a temporary Clerk, and 37 Health Visitors.

A notable feature of the existing arrangements is the intimate co-ordination existing between the work of the Health Visitors and the work of the Centres.

Lists are prepared of infants found by the Health Visitors not to be thriving, and also of other young children requiring medical attention, and, after examination of the sheets, are referred to the Medical Officer to the Centres, who writes asking the mothers to bring the children to the proper Centre. Care is taken that the children are not already receiving medical attention, or that the Medical Attendant, if any, is agreeable to their attending the Centre.

An examination of the Health Visitors' Case Sheets shows a great amount of distress and neglect, and it is made very plain that in many instances assistance might be given with most beneficial results—under conditions.

In many instances cases of wasting infants have been received from the Centres into the Babies' Hospital, Slade Lane, Levenshulme, but this work was much restricted by want of the funds necessary to open additional beds.

The Corporation were reluctant to enter on new expenditure not outlined in the Scheme already passed, but finally agreed to a proposal to pay half the cost of 18 beds at a rate of 30s. per week, provided the Local Government Board would grant a moiety of their contribution. In return they secure the exclusive use of 18 beds for cases recommended by the Infant Life Preservation Sub-Committee.

But cases are also received into other hospitals, and it is therefore valuable to the Scheme that the Corporation should have the services of Capt. Lapage and Dr. Ashby.

There is plenty of room for expansion in this work, which is of peculiar value, since infants once put on the right lines of progress are likely to continue in them—at all events if kept under supervision.

The third section of the Scheme was approved by the Midwives Supervising Committee, though representations were made that it was not adequate, and also that it was not necessary. That Committee have now outlined a line of action in closer association with the Hospitals for Diseases of Women. It should be observed, however, that the original rather tenuous proposals also contemplated close co-operation with the hospitals.

The following is a summary of work carried on at various Centres from the date on which the medical work of the School for Mothers was taken over, viz., July 1st, 1915, to the end of the year :—

NUMBER OF BABIES WEIGHED.

Month	Open-shaw	Ancoats	Hulme	Colly-hurst	Gorton	Total
July	353	244	245	217	277	1336
August	365	200	221	188	219	1193
September	377	252	227	229	299	1384
October	368	316	315	173	245	1417
November	359	189	216	145	209	1118
December	215	212	139	129	192	887
	2037	1413	1363	1081	1441	7335

NEW CASES WEIGHED.

Month	Open-shaw	Ancoats	Hulme	Colly-hurst	Gorton	Total
July	49	21	25	24	22	141
August	41	24	19	13	16	113
September	29	19	19	21	25	113
October	40	22	29	21	18	130
November	35	9	18	15	11	88
December	39	15	8	10	15	87
	233	110	118	104	107	672

NUMBER OF CONSULTATIONS HELD.

Month	Open-shaw	Ancoats	Hulme	Colly-hurst	Gorton	Total
July	136	117	185	127	106	671
August	191	100	114	115	102	622
September	185	151	128	125	143	732
October	176	180	187	101	119	763
November	166	111	135	95	106	613
December	202	187	86	86	84	645
	1056	846	835	649	660	4046

VISITS PAID TO HOUSES.

Month	Open-shaw	Ancoats	Hulme	Colly-hurst	Gorton	Total
July	698	105	105	115	81	1104
August	111	84	136	98	53	482
September	59	33	50	103	26	271
October	81	154	154	104	36	529
November	66	98	123	95	55	437
December	51	121	111	105	50	438
	1066	595	679	620	301	3261

STATEMENT OF WORK DONE BY THE HEALTH VISITORS.

BY MISS SEED.

During the year 1915 the Infant Life Preservation Sub-Committee met nine times.

In March of this year the Committee suffered a great loss through the death of Miss Howard, who for the past five years had been Superintendent of Health Visitors. Miss M. G. Seed was appointed to succeed her in May, and took up her duties on July 6th. Later, in view of the rapid growth of the work in the Health Visitors' Department, it was deemed advisable to appoint an Assistant Superintendent, and on December 1st the new assistant entered on her work.

The staff at the end of the year consisted of the Superintendent, the Assistant Superintendent, two female clerks—one at a salary of 20s. a week, the other at 25s., 27 Health Visitors, 22 of whom were certificated, and received salaries ranging from 30s. to 45s. a week, and five others who were taken over from the Ladies' Public Health Society by the Corporation in 1908, and whose salaries vary from 18s. to 30s. a week. One of the Health Visitors resigned, and ten new appointments were made.

A leaflet specifying the duties of the Health Visitors was drawn up in 1908, and was published in the Annual Report for that year. The detailed account of the Health Visitors' work given in the appended table shows that these duties have undergone very little change. At the same time, however, as has been mentioned in previous years, this enumeration only includes the actual visits paid in the various definite branches of the work, and does not allow for numerous other calls upon the Health Visitors' time: such as sickness, poverty, or neglect which must be attended to; the many fruitless visits which often have to be paid before a "lost" infant can be traced to its new home; and the waste of time and energy spent on visits the result of which can only be recorded by the words "no access."

The care of the infants naturally takes the prominent place in this work, and 6,294 primary and 62,398 subsequent visits have been paid to infants. The increase in the number of these visits as compared with those of the previous year may be attributed to the addition of nine Health Visitors to the staff and to the opening out of three new districts, namely, Miles Platting, Beswick, and a further portion of St. George's, with a part of Newton. There still remained a considerable area of the City not visited by the Health Visitors, and in order to keep in touch with the infants who removed to these districts from our visited areas one Health Visitor was specially deputed to look after the welfare of these cases, and 783 visits were paid in so doing.

A careful record is kept of every infant whose existence comes to our knowledge, and an effort is made to visit at least once a month, when the infant is weighed and the details of the visit are entered on the " Infant Sheet," so that at the end of twelve months we have a concise history of the progress of each child. Delicate or poorly infants are of necessity visited more frequently, and during the months of July, August, and September visits in other branches of our work, such as house-to-house inspection, were decreased, in order that the Health Visitors might devote more time to infant visitation, and so be able to cope more readily with cases of Infantile Diarrhœa.

The weighing of the infants is a most important matter, and each infant is weighed as regularly as possible. Very little opposition is now met with in this respect, the mothers being quite anxious to know how much the baby has gained. Indeed, the fact that a child is losing weight is often the only means of inducing some mothers to believe that their child's progress is far from satisfactory.

The taking over of the School for Mothers by the Corporation, and the subsequent establishment of the Child Welfare Centres, is of immense value to the infant work, and the co-operation between the Centres and the Health Visitors must eventually tend to lessen the dreadful waste of infant life going on.

The Health Visitors in their work are ever coming in contact with suitable cases for the Centres, and with few exceptions the mothers readily promise to take their infants up for consultation. A list of these suitable cases is sent from time to time to the doctor at the Centre, and weekly records of new infants attending the Centres are furnished by the workers there for our use. Again, when a mother fails to keep her promise and neglects to take her child for medical examination, the name of that mother is sent back to us from the Centre, and the case is at once visited to ascertain the cause of the delay.

Notification of Births Act.—The total number of notifications received under the Act was 14,341, and of these 3,964 were reported by doctors, 9,656 by midwives, and 721 by the parents. Out of the total, 14,341, those occurring in the districts covered by the Health Visitors numbered 4,742. The registered births within the City numbered 16,604, and 6,171 were referred to the Health Visitors. Apart from these figures, 109 other infants were discovered by the Health Visitors, a few whose births had been unnotified and unregistered, but the majority removals from other towns.

The house-to-house inspections numbered 8,142, and re-inspections 5,120. Whilst on these visits the Health Visitors found 4,410 defects, and referred 2,966 to the Sanitary Department. This branch of the work is perhaps the most

difficult, as some of the people naturally resent having their houses systematically inspected, but with tact and perseverance the difficulties are generally overcome, and the Health Visitors are able to combine the twofold work of seeing that repairs are remedied, dirty houses cleaned, and of imparting helpful knowledge and advice as regards the health of the children, and even of the mother herself, particularly if she is an expectant mother. Not infrequently, too, the inspection of houses has been the means of tracing lost infants when all other efforts have failed. That these inspections are useful is evident from the fact that apart from the 1,001 defects remedied by the Sanitary Department, the Health Visitors record that 972 bedrooms, 842 kitchens, 2,596 yards, 2,643 closets, 1,279 cellars, ceilings, staircases, etc., have been limewashed, 1,660 rooms cleaned other than by limewashing, and also 1,733 defects remedied without the intervention of the Sanitary Inspector.

The work of the Cleansing Station is still carried on by the Health Visitors' Department, the Special Nurse continuing to carry out the cleansings and to perform the various other duties deputed to her at her appointment.

The Station has only been in use on 71 days throughout the year, and 449 children were cleansed : this being an average of 6 per week.

Of the 449 children brought to the Station 35 had body vermin only, 133 had head vermin, 23 had nits only, and 258 were suffering from both body and head vermin. Thirty-one children were suffering from Impetigo, 7 from Scabies, and 8 others from Swollen Glands, Blepharitis, Discharging Ears, etc. Legal proceedings were taken against the parents on account of the verminous condition of their children in one instance only. A fine of 5s. was imposed. Eight other verminous cases were reported to the N.S.P.C.C.

After notification and cleansing these verminous cases are followed up by the Health Visitors, who visit them in the home.

543 cases were notified to this Department by the Education Authorities, and of these 197 were visited by the Health Visitors, who also paid 1,851 subsequent visits to these and previously notified cases. The cases occurring outside the area covered by the Health Visitors have been visited either by the Special Nurse, who has visited 122 new cases and paid 211 subsequent visits, or by the Sanitary Inspector. A certain number of these cases, owing to wrong addresses being given, or speedy removals, have never been traced.

Sick children and neglected ones other than those which are being visited as infants seem naturally to fall to the care of the Health Visitors, and, judging from the many letters received appealing to us for help in these matters, this would appear to be a fairly general opinion. 439 visits have been paid to sick

STATEMENT OF WORK DONE BY THE HEALTH VISITORS DURING THE YEAR 1915.

Districts	House-to-house inspections										Work done by Sanitary Dept.		Work done under the direction of Health Visitors																Infants Visited		Neglected Children		Charity Cases		Masters' Meetings		Visitation Children		Visits re complaints and special cases									
	Inspections					Re-inspections					Overcrowding abated	Defects remedied	Linewashing								Cleaning other than Linewashing								Primary	Subsequent	Visits re Sick Children	New Cases	Visits	New Cases	Visits	Number of families visited	Recommendations given	Number	Average Attendance	New Cases	Visits	Visits re complaints and special cases						
	Number	Overcrowded	Disrepair	Dirty	Cellar dirty or in disrepair	Yards defective	Closets defective	Referred to Sanitary Dept.	Number	Number of visits			Defects found	Defects remedied	Visits re defects	Referred to Sanitary Dept.	Overcrowding abated	Defects remedied	Number of visits	Bedrooms	Kitchens	Yards	Closets	Cellars	Coal-places	Ceilings	Stairways	Others															Rooms	Cellars	Yards	Closets	Porches	Others
South-West	329	6	96	166	4	16	8	23	463	15	63	151	47	35	...	13	250	213	100	126	128	8	12	26	84	18	109	...	9	4	457	56	188	2775	31	2	2	4	2	119	...	7
North	219	4	17	48	16	10	9	10	60	84	28	34	...	41	2	17	168	64	69	90	90	23	16	9	2	...	36	4	4	4	20	...	356	3871	37	...	2	18	33	88	58	41	20	79	...	9		
Central	149	8	69	78	...	19	24	25	253	100	12	172	4	123	17	55	178	87	77	123	132	11	7	25	25	1	72	8	8	3	20	6	266	3360	1	28	36	1	20	25	14	...	1	44	579	80		
South	473	2	91	239	1	11	24	27	415	281	3	111	4	24	3	41	203	113	155	192	193	41	64	106	74	3	289	...	13	10	4	...	237	2818	54	2	1	16	60	246	12	1	70	4	23	...	7	
East	423	2	151	164	...	96	69	204	366	311	19	24	40	156	...	259	232	55	76	124	124	12	21	76	13	...	236	1	203	3228	...	3	9	...	92	106	1	31	76	...	3	...	10		
London Road	168	1	44	37	12	21	12	46	300	133	11	117	...	10	...	10	42	20	11	83	85	11	3	3	3	3	16	6	...	4	...	202	2686	49	13	11	14	...	8	22	128	...	13			
Donaght	357	1	58	144	29	54	36	56	125	85	8	67	...	28	2	9	156	31	22	59	66	...	1	8	11	5	8	11	1	183	2996	7	9	12	10	3	9	11	55	39	5		
St. George's-North	264	...	23	27	...	8	2	5	91	138	1	39	...	17	...	22	93	46	23	17	21	1	2	6	22	3	44	368	2820	84	1	37	26	...	100	4	25			
East	406	1	118	155	1	26	21	56	113	211	146	103	162	43	1	26	167	3	45	88	87	2	18	271	3028	5	2	1	5	49	11	104				
Central	289	1	100	123	6	21	11	57	406	286	...	160	21	41	2	9	516	108	123	407	406	10	23	10	9	2	75	...	6	...	63	2	245	3006	...	1	3	12	...	14	136	...	6			
Co. M.-North	929	3	172	219	40	171	93	168	699	503	14	254	34	127	1	128	162	55	56	342	366	54	...	8	5	6	285	38	60	55	208	13	257	3032	1	7	16	2	...	6	3	...	11	35	...	24		
South	210	...	42	35	13	13	4	47	284	58	14	24	...	17	...	35	14	14	4	63	35	37	5	11	2	4	56	34	39	6	18	...	262	3250	67	...	2	2	...	4	1	69	...	1		
Hales-Central	231	7	108	71	14	36	34	40	115	141	11	70	...	19	...	29	6	2	28	29	2	14	3	...	9	140	8	418	2667	10	42	77	1	9	65	...	4			
East	451	8	136	68	34	50	36	126	73	35	20	59	16	45	4	54	26	8	3	28	28	7	1	...	2	19	42	...	6	1	18	3	320	3080	3	8	12	1	29	128	...	38			
West	512	6	136	185	19	117	30	78	162	123	6	27	...	47	...	8	160	27	...	193	192	4	16	1	3	20	24	1	13	...	264	2556	3	1	5	40	...	15		
Gosn-West	346	2	107	125	...	67	39	22	194	364	24	85	1	123	...	15	7	1	1	26	26	1	51	...	3	1	10	...	465	4550	...	1	3	2	35	169	48	37		
Opendaw	499	1	186	176	2	60	49	81	169	124	26	68	84	33	...	25	42	19	26	55	35	4	1	4	2	...	18	...	7	3	1	...	332	3305	76	34	61	10	2	14	5	...	1	87	38	...		
Leilwick-North	216	2	101	57	9	28	16	33	100	100	47	80	23	79	4	19	80	15	29	64	66	5	4	11	3	7	57	3	42	39	37	...	183	2021	...	2	4	1	3	110	...	1		
South	149	4	87	75	20	27	13	41	48	59	43	38	16	97	3	9	104	19	5	44	45	8	18	7	13	16	29	1	14	6	16	...	248	3107	5	3	16	278	3	9			
Boswick*	930	3	342	193	1	190	80	463	620	236	18	13	19	67	...	187	311	50	1	402	427	10	13	2	19	37	22	...	17	7	80	7	330	1848	...	1	1	2	28	...	33			
Monalt	241	1	145	87	2	48	27	38	43	90	18	21	4	45	1	8	55	12	12	31	31	3	8	10	2	5	43	...	1	1	5	2	319	821	37	26	28	29	14	49	...			
Miles Platting †	351	5	169	183	...	92	26	84	21	46	6	16	7	16	...	12	74	6	2	31	31	8	...	3	2	...	308	752	...	1	1	1	1	6	22	...	31			
Two Special Nurses	69	821	56	122	211	58	21				
Total	8142	68	2498	2655	223	1181	663	1730	5120	3523	568	1733	482	1233	40	951	3069	972	842	2596	2643	254	229	326	294	76	1660	95	232	139	988	99	6294	62398	439	180	272	62	198	555	144	112	52	319	2062	783	425	

* District opened April 13th.

† Opened August 23rd.

‡ Opened August 16th.

children and other 452 visits to cases of neglect, 55 of which were referred to the N.S.P.C.C. The number of cases referred to the N.S.P.C.C. is small in comparison to the neglected cases, but promises of amendment, accompanied by efforts to carry out these promises (alas often only transitory) have induced us to err rather on the side of leniency.

We are again indebted to the Lord Mayor, through whose kindness we received a supply of Charity Forms, which enabled us to recommend a number of necessitous cases for gifts of sheets, blankets, or flannel. We also received a number of flannel garments for infants, and for these our best thanks are due to Councillor Miss Ashton, who so kindly arranged for their being made. These garments are distributed by the Health Visitors as occasion arises.

Other charitable sources have enabled 555 families to be assisted with food or clothing, and 144 recommends for various charities have been given out by the Health Visitors.

A summary of the work done by the Health Visitors under the supervision of the Ladies' Society for Visiting the Jewish Poor, and of the Medical Officer of Health, is given in the following table.

Work of the Jewish Health Visitors during the year 1915.

DISTRICT	HOUSES VISITED		CONDITION OF HOUSES							No. of Houses containing Lodgers	Complaints requiring action by Sanitary Department	SICKNESS			Leaflets left at Houses
	First Visit	Not First	Dilapidated	Not Dilapidated	Clean	Dirty	Improved since last Visit	Not Improved	Overcrowded			Infectious	Non-Infectious	Total Sickness	
Red Bank	46	948	64	884	921	67	215	743	...	243	151	40	220	260	810
Strangeways	6	1007	7	1000	993	14	181	816	...	271	174	31	142	173	985
TOTAL	52	1955	71	1884	1914	81	396	1559	...	514	325	71	362	433	1795

DISTRICT	Disinfecting Powder left at Houses	LIMEWASHING							Reports as to Children being Neglected (clothing, food, &c.)	Help Rendered Help rendered includes:—Giving food, clothing, &c., advising mothers as to care and treatment of children, making of sick beds, cleaning houses for sick persons, obtaining recommends for Convalescents, &c.	Infants Visited	Visits re Phthisis	Re-inspection of Houses	
		Living and Bed Rooms	Kitchens	Yards	Closets	Cellars	Coal-places	Ceilings						Staircases
Red Bank	931	26	48	110	110	29	...	8	1	...	289	827	13	1243
Strangeways	985	...	3	40	37	11	1	6	...	...	172	864	40	469
TOTAL	1916	26	51	150	147	40	1	14	1	...	461	1691	53	1712

SCHOOLS FOR MOTHERS.

STATEMENT BY MISS H. K. ARMITAGE, HON. SECRETARY TO THE SCHOOLS
FOR MOTHERS.

In July, 1915, the Manchester Schools for Mothers handed over the control of the medical part of their work to the Municipal Authorities, though the voluntary helpers, working under the Schools for Mothers' Committee, still carry on the routine work of the consultations, such as weighing and registering the babies, admitting new cases, and selling what dried milk, emulsion, or special foods the doctor has ordered.

Classes form an increasingly large part of the work of the Schools. In addition to the usual sewing, dressmaking, and cooking classes, courses of sick-nursing have been given at two centres. The babies are always cared for in other rooms, so that the mothers are free to give their undivided attention to work and to the Superintendent's health talks. During the year there have been 338 classes, with a total attendance of 5,690. Much of the teaching and all the work of looking after the babies is done by voluntary workers, of whom there are well over 100 at the six centres.

Dinners are provided at a low charge for expectant and nursing mothers when the demand is sufficient. During the year 7,712 dinners were served.

TABLE SHOWING THE AGES OF CHILDREN ATTENDING CONSULTATIONS AT
CHILD WELFARE CENTRES FROM JULY 1ST TO DECEMBER 31ST, 1915.

Centre	0-1 yr.	1-2 yrs.	2-3 yrs.	3-4 yrs.	4-5 yrs.	Totals
Openshaw	327	48	12	8	7	402
Ancoats	151	27	..	..	..	178
Hulme	175	43	2	3	1	224
Collyhurst	166	31	2	..	..	199
Gorton	154	38	5	1	..	198
Cheetham	85	37	4	6	2	134
Totals.	1058	224	25	18	10	1335

NOTE.—The Specialists' Clinics at Hulme and Openshaw, dealing particularly with children over 12 months, were only opened in November. Thus the figures for 1916 will show a great increase in the number of older children attending.

TUBERCULOSIS.

Statistical.—The death-rates from Tuberculosis in 1915 at groups of ages cannot usefully be compared with the corresponding death-rates in previous years. We may, however, write down the number of deaths at all ages, and at 13 groups of ages, one of these being under one year of age, and institute a comparison between the numbers, which will give, at all events, an approximate idea of the course of events.

When this is done we find that the deaths among males from Tuberculosis of the Lungs at all ages was 811, as compared with an average of 683 for the previous ten years, and that this number is higher than the number which occurred in any one of the ten years preceding 1915. This high number of deaths moreover relates only to the civil population (which includes Manchester soldiers discharged as suffering from Tuberculosis of the Lungs). Increase occurs at ages 15-19, 20-24, and in each of the age groups 35-74, but not at the age group 25-34, and not at ages under 15.

The most marked increase occurs at ages 35-44.

It is possible that the increased stress of work thrown on men at this age-period, and the demand for workers which would draw into active work many suffering from Tuberculosis of the Lungs, has to do with this great increase of deaths.

There is a corresponding increase in the number of deaths of females suffering from Tuberculosis of the Lungs.

This increase affects every age group from one year of age up to 64 with the exception of ages 20-24. The aggregate increase at all ages is nearly as great as among men. The greatest increase occurs at ages 25-34, and this would tend to support the view that it is largely due to stress of work.

(Table omitted.)

Deaths from other forms of Tuberculosis show no corresponding movement.

(Table omitted.)

On the contrary, the total number of deaths from other forms of Tuberculosis is lower in 1915 than in any one of the preceding ten years.

It is difficult to account for the different course of these two divisions of cases except on the supposition that the great increase in mortality from Pulmonary Tuberculosis is conditioned by a special stress which has not yet markedly affected other forms. If so, it may be only a temporary increase.

On the other hand, when we set forth the deaths from Bronchitis in similar tables for males and females, we find that the rise in the mortality from Pulmonary Tuberculosis is paralleled by a rise in the mortality from Bronchitis, both among males and females.

The rise in the mortality from Bronchitis extends from the age of 20 upwards. It is most marked amongst males at ages 55-64 and 65-74, again suggesting a strain on older people. Amongst women the chief increase occurs at ages 65-74 and 75-84.

(Table omitted.)

Pneumonia shows no such increase. On the contrary, among males the number of deaths from Pneumonia is lower than in any of the preceding ten years. Among females it is lower than in any of the ten preceding years except 1906.

This improvement is not manifested at early ages. It is probable that under Pneumonia we are dealing with different conditions in childhood and adult life.

(Table omitted.)

The Public Health work done in connection with Tuberculosis has been much interfered with during the year owing to a number of changes in the Medical, Nursing, and Clerical Staff.

The work of the Care Committee has had to be developed and systematised.

Young men have given place to women, who lack the training necessary to make work run smoothly and easily, at all events for a time.

The result is a great increase of pressure on the head officers. Nevertheless a large amount of work has been done.

Partly to save time, partly to reduce expense, the usual tables have been cut down.

Table I shows the number of new cases of Pulmonary Tuberculosis notified under the Poor-law, from Institutions, and by private practitioners.

It will be seen that the number of newly-notified cases has diminished as compared with the previous two years. The principal reduction is in Poor-law cases, although a marked reduction has also occurred from Institutions other than Union Hospitals. The reduction in notifications from private practitioners is considerably less in amount.

The diminution in newly-notified cases in 1915 is striking when we compare the notifications with the deaths year by year as shown in the previous tables.

It is, I believe, owing largely to the great diminution of medical men in civil life, the result being that notification of Tuberculosis suffers with other services requiring careful examination.

TABLE I.
PHTHISIS, 1915—NUMBER OF NEW CASES OF PULMONARY TUBERCULOSIS NOTIFIED.

Year	Poor-law Cases	Institutions	Private Practitioners	Total
1900*.....	578	455	540	1573
1901	625	373	341	1339
1902	667	305	303	1275
1903	556	550	251	1357
1904	512	440	250	1202
1905	527	588	291	1406
1906	565	510	304	1379
1907	634	646	310	1590
1908	659	498	346	1503
1909	681	542	384	1607
1910	543	760	356	1659
1911	517	897	423	1837
1912	488	947	969	2404
1913	345	717	1350	2412
1914	483	877	1304	2664
1915	279	†740	††1194	2213
Total	8659	9845	8916	27420

* This table does not include 425 cases notified in 1899.

† Including 25 cases notified from Schools.

†† Including 54 cases notified by Medical Staff of Tuberculosis Office.

This appears to be further shown when we examine the numbers of cases notified from different Institutions (Table 2). Particularly in the case of Ancoats Hospital, no other cause appears adequate to account for the great reduction in new cases notified.

(Table omitted.)

The following table shows the notifications from Tuberculosis of the Lungs and other forms of Tuberculosis classified according to age and sex.

See Table—Notifications 1915.

In Table 6 cases of Tuberculosis other than Pulmonary are classified according to the seat of the disease, age, and sex. The great diminution in the number of this class of case notified in 1915 is very striking, but has not the same significance as the diminution in notifications of Pulmonary Tuberculosis, since in 1914 many chronic cases were notified who would not again be notified.

(Table omitted.)

The usual table showing the notifications and the rates of notification in the different Sanitary Districts has been prepared, but is omitted. The rates are necessarily at fault, but the figures to be compared, viz., notification rates and death-rates, are equally affected, and the comparison is not affected.

The notification-rate exceeds the death-rate by a very variable amount in this as in other years, corresponding, no doubt, to great variations in the degree to which notifications are made in the different districts.

The case of Withington is especially notable. In this district (a suburban residential district) the deaths steadily exceed the notifications, pointing to a failure in notification.

Herewith is given a brief summary of the routine work done in connection with the notification of Tuberculosis :—

4,461 special cases have been entered in the Business Book for investigation and cleansing after removal to hospital, change of residence, death, or under special circumstances.

600 letters have been sent to owners with reference to as many houses, with subsequent correspondence in many instances.

In 593 cases bedding has been removed for disinfection or destruction.

About 40,000 cardboard boxes have been prepared in the office and supplied to patients for spitting purposes in the home.

250 spit bottles have been supplied for use outside the house.

NOTIFICATIONS—1915.

Age Periods	NOTIFICATIONS ON FORM A											Total Notifications on Form A	NOTIFICATIONS ON FORM B				Total Notifications on Form B	NOTIFICATIONS ON FORM C		
	Number of Primary Notifications												Number of Primary Notifications					Total Notifications on Form B	Poor Law Institutions	Sanatoria
	0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-		Total Primary Notifica- tions	Under 5	5-	10 to 15					Total Primary Notifica- tions
Primary Males	8	48	122	88	68	94	214	263	189	99	30	1,223	1,685	..	8	5	13	15	309	623
Females	11	39	100	114	94	101	227	151	75	37	16	965	1,325	..	4	5	9	13	66	241
Non-Pulmonary Males	22	99	73	70	57	15	24	27	10	13	5	415	543	1	3	3	7	10	16	12
Females	17	58	97	70	64	29	38	20	8	5	5	411	529	..	2	2	4	5	9	2
Totals	58	244	392	342	283	239	503	461	282	154	56	3,014	4,082	1	17	15	33	43	391	880

TABLE.—STATISTICS RELATING TO THE NOTIFICATION OF PHTHISIS.

	1915	1914	1913	1912	1911	1910	1909	1908	1901 to 1907	1899 Sep. 1 to Dec. 31 1900	Totals
<i>Cases Visited and Filed—</i>											
Males	1448	1612	1543	1354	1090	958	1034	971	6203	1017	17230
Females	1110	1094	1052	993	717	571	567	529	3693	732	11058
Totals ...	2558	2706	2595	2347	1807	1529	1601	1500	9896	1749	28288
<i>Cases Disinfected—</i>											
1. By Corporation—											
(a) With solution of chlorinated lime only	869	994	822	884	754	665	590	572	3877	581	10608
(b) With lime solution only	0	0	0	0	0	0	0	0	17	109	126
(c) With dough and solution of chlorinated lime	2415	3123	3044	2842	1983	1599	1419	1177	5168	0	22770
Totals ...	3284	4117	3866	3726	2737	2264	2009	1749	9062	690	33504
2. By Tenants—											
With dough ...	3580	4564	4050	3790	3342	3127	2690	3011	15610	1299	45063
Totals...	6864	8681	7916	7516	6079	5391	4699	4760	24672	1989	78567
<i>Specimens of Sputum Examined:</i>											
Positive	781	1052	1165	1061	851	616	531	419	1958	104	8538
Negative	1576	2269	2637	1876	1403	1135	985	866	3120	154	16021
Totals ...	2357	3321	3802	2937	2254	1751	1516	1285	5078	258	24559
Cases reported as sent to Hospital	1719	2718	2421	1874	1957	1772	2002	2225	9427	991	27106
Notified from common lodging-houses..	212	283	243	201	199	193	231	302	1553	187	3604
Number of cases under visitation during the year	5690	5941	4848	4305	3484	3105	2869	2572	11919	about 600	...

* This number includes all forms of Tuberculosis.

The following table shows the fate of cases treated in Delamere Sanatorium in successive years.

The results are not very favourable, but that is owing to the difficulty in obtaining cases in the early stages of the disease.

Baguley Sanatorium is used principally for advanced cases.

TABLE.
DELAMERE SANATORIUM.

Males.

Year	No. of new cases	No. of re-admissions	Died in the Sanatorium	Died elsewhere	Lost sight of	Known to be still living, Dec. 31st, 1915
1905	16	1	0	11	3	2
1906	18	2	1	14	3	0
1907	29	2	1	20	4	4
1908	36	3	1	22	9	4
1909	27	4	2	14	6	5
1910	27	5	0	14	9	4
1911	38	2	0	20	7	11
1912	42	3	1	21	11	9
1913	151	3	0	41	43	67
1914	184	8	1	26	69	88
1915	140	10	2	6	13	119
Total	708	43	9	209	177	313

DELAMERE SANATORIUM—*continued**Females.*

Year	No. of new cases	No. of re-admissions	Died in the Sanatorium	Died elsewhere	Lost sight of	Known to be still living, Dec. 31st, 1915
1905	14	0	1	8	2	3
1906	14	1	0	10	3	1
1907	16	2	0	14	1	1
1908	13	3	0	12	1	0
1909	16	1	0	10	1	5
1910	11	4	0	6	2	3
1911	18	2	0	9	3	6
1912	25	3	0	6	8	11
1913	67	0	0	2	29	36
1914	69	4	0	2	19	48
1915	67	5	0	0	8	59
Total	330	25	1	79	77	173

BAGULEY SANATORIUM.

Males.

1915	324	0	41	39	17	227
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Females.

1915	90	0	9	7	7	67
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The following table gives a classification of the cases whose family income fell short of a standard rate according to the ascertained shortage, and shows the institutional assistance obtained for these patients.

The standard was obtained from the standard given by Mr. Rowntree in his book on poverty, 25 per cent. being added to the price of food, 50 per cent. to estimated price of household sundries, and rent being as recorded by the investigator.

It would appear from this table that the disease was more fatal to the poorer class of cases than in previous years.

TABLE.
CASES OF SHORTAGE, 1915. PHTHISIS.

	Under 5/-	5/-	10/-	11/-	12/-	13/-	14/-	15/-	16/-	17/-	18/-	19/-	20/- and Up- wards	Total*
Dead at end of year	81	52	4	2	8	5	2	2	3	..	7	1	11	178
Living at end of year	202	117	11	17	4	8	12	4	7	9	1	3	14	409
Admitted to Baguley	25	14	4	2	..	1	3	..	2	..	..	..	2	53
Delamere	9	16	1	..	1	..	..	..	1	1	..	..	2	31
Abergele	4	8	..	1	..	1	..	..	..	1	..	..	1	16
Clayton	16	5	..	..	1	1	..	..	..	1	..	..	1	25
Union Hospital	39	24	3	3	6	2	2	..	3	1	3	..	6	92
Other Hospitals	38	13	1	4	..	3	3	1	..	2	..	..	5	70
Home	152	89	6	9	4	5	6	5	4	3	5	4	8	300
Relief from Guardians	16	12	1	3	1	2	3	1	3	1	1	..	2	46
Assistance from £1,500	90	44	7	6	3	..	1	2	4	1	..	1	3	162
Assistance from £800	17	4	..	1	..	..	..	..	..	..	..	1	..	23

THE SENIOR TUBERCULOSIS OFFICER'S REPORT.

BY DR. D. P. SUTHERLAND.

In presenting a report upon the work done during 1915 it is again convenient to refer to the full description given in previous reports of the routine adopted to provide treatment for tuberculous patients.

With minor modifications the scheme described in 1913 has been adhered to in its general outline.

The transference of the staff of the Tuberculosis Office to the new buildings provided next to the Dispensary took place early in the year, and has been of advantage in enabling better co-ordination of work to obtain, and in increasing the ease of dealing with cases.

Most patients coming under examination unfortunately continue to be in an advanced stage of disease, and very few early cases are seen in relation to the total number examined. A reference to the tables given later will show the proportion of cases of the first stage [Turban-Gerhardt]* to those in the second and third, and once more the necessity is urged of early medical attention being sought for all cases of failing health.

Amongst suspicious symptoms may be mentioned loss of weight, increasing disability for work, poor appetite, cough, shortness of breath, anæmia and weakness, pains in the chest, blood spitting, frequent colds and attacks of "Influenza."

In children who have suffered from the infectious diseases, *e.g.*, Measles, Whooping Cough, Scarlet Fever, any prolongation of convalescence or persistence of symptoms of ill-health should lead to an immediate and thorough medical examination.

In all difficult and doubtful cases the services of the Tuberculosis Officers are at the disposal of practitioners, and during the year under review about 250 consultations were held with patients at surgeries, in the patients' homes, or at the Tuberculosis Office. These were all cases referred specially by doctors, and one would be glad to see many more cases referred in this way.

The administration of the Insurance Act in respect of the domiciliary sixpence was dealt with in last year's report, and the conditions then obtaining and the conclusions arrived at remain the same.

* This anatomical classification is at present the most convenient to adopt. The stages are :—
 Stage I.—Disease of slight severity, limited (a) to small areas of one lobe, *e.g.*, an apical lesion not extending below the second rib in front ; or (b) to infection of both apices limited by the clavicles anteriorly and the scapular spines posteriorly.
 Stage II.—Disease of slight severity, more extensive than I., affecting at most one lobe, or, if severe disease, affecting half a lobe.
 Stage III.—All cases more severe than II., and all cases with considerable cavities.

The sum available at sixpence per insured person amounts approximately to a total of £7,500 a year.

The number of insured cases receiving domiciliary treatment is about 750. A sum of over £10 per annum should be available for each of these domiciliary cases, an amount quite adequate to pay for the home treatment by practitioners. As it is, however, the doctor in charge of a number of tuberculous cases does not receive any specific sum in respect of them, but is simply paid on the established basis for all cases, and so the remuneration received for Tuberculosis is lost sight of, and, indeed, is helping to pay for treatment of all cases. The total sum available to the profession remains the same; it is simply that the distribution of a part of it should be readjusted in accordance with the original intention of the Act.

Until this is done a large measure of control in the treatment of Tuberculosis is sacrificed to the detriment of both doctors and patients.

Suitable cases of early Pulmonary Tuberculosis in adults referred for Sanatorium treatment by the Guardians have been sent to Abergele as formerly, and surgical cases in children have also been admitted so far as the accommodation at Pen-y-Coed has allowed.

But the treatment of children suffering from Tuberculosis in its various forms cannot be regarded as satisfactory on account of the insufficient provision for institutional care. The general hospitals are naturally unwilling to take in either infectious cases or those requiring perhaps 18 months' continued treatment. Out-patient attention does not suffice for them, and accommodation is necessary on an adequate scale to meet the requirements. The Clayton beds were made full use of up to the time that the institution was closed, but since that date no other provision has been possible, and there is consequently a large waiting list. This is the more to be regretted as generally the results obtained in the treatment of children are good.

Early treatment of this kind is irreplaceable, and would yield a generous return in future welfare to the community.

The increase in the number of beds at Baguley has made it possible to grant institutional treatment to a large number of adults.

As already pointed out, however, to obtain the maximum efficiency it will be necessary to prevent unsuitable cases from returning to their homes and infecting their families; powers are also wanted whereby the removal of advanced cases (many of whom refuse to go away at all) may be insisted upon.

It is unfortunate that at the time an extension of clinical work was commencing the depletion of the whole-time staff in consequence of the War should have taken place.

TABLE B.—RESULT OF EXAMINATION OF CASES SENT FOR DIAGNOSIS—1915.

	Pulmonary Tuberculosis			Tuberculosis of					No evidence of Tuberculosis	Bronchitis	Heart Lesions	Other Diseases
	Stage I.	Stage II.	Stage III.	Larynx	Bones and Joints	Glands	Abdomen	Other Organs				
Males . . .	5	14	25	..	2	1	..	1	5	26	8	19
Females . .	10	12	11	3	3	3	1	2	9	9	2	16
Children . .	5	7	5	..	1	9	2	4	7	9	2	9

TABLE C.—RESULT OF EXAMINATION OF CONTACTS.

Males . . .	1	..	1	..	..	..	..	..	4	15	2	6
Females . .	1	10	7	..	..	3	..	..	12	20	5	20
Children . .	15	19	7	..	3	42	5	2	34	70	12	40

In March, Dr. S. C. Adam commenced his duties as Temporary Assistant Tuberculosis Officer, and his services have been of great value.

Table A, on page 48, gives an analysis of cases examined by the whole-time Officers during 1915, and refers only to primary examinations. Cases that had been kept under observation have been re-examined at intervals of one, three, or six months, and in all this has accounted for a total of 1,922 examinations.

Where a case is suffering from two or more forms of disease an entry is made in the columns appropriate to the disease; one case may, therefore, appear in more than one column.

In the majority of tuberculous cases seen, lesions of the lungs were found in addition to the disease elsewhere, but no demonstrable pulmonary tubercle was made out in 26 cases of other forms of Tuberculosis.

A further subdivision of the table is made which brings out the result of examination of the cases examined for diagnosis and contact purposes. (Tables B and C on page 49.)

In respect of insured patients, the amount of money, £800, set aside for the provision of food and clothing has proved of great use. Grants are only made after full investigation into the circumstances of the family, and conditions are imposed that the instructions given in regard to the taking of precautions and following of advice shall be carried out.

Food was granted in 432 cases to 187 patients, *i.e.*, some patients had more than one grant during the year, and clothing was supplied in 265 cases to 208 patients.

The increased number of cots and bedsteads, and the provision of additional bedding by the Care Committee, have been very valuable. It has been possible to provide for more satisfactory isolation of both children and adults in their homes, and in many instances to limit the possibilities of direct infection in families.

The work of the Tuberculosis Nurses in dealing with individual cases has been considerable, and this direct supervision of cases has had definitely good results. The patients have appreciated the interest taken in them, and in all but a few cases have responded by more careful observation of precautions and instructions.

The table following gives an indication of the work in this direction. Table D.

By the courtesy of the Chief Constable, depôts for outfits of sputum boxes, paper handkerchiefs, and bottles have been set up at six outlying Police Stations. Patients unable to come to the Tuberculosis Offices for these outfits are now able to obtain them nearer their homes on presentation of a card given in all suitable cases by the Investigation Officer. This facility has been greatly appreciated and made use of by the patients.

Sick nursing of bedfast cases has been attended to by the District Nursing Association under arrangements with the Corporation, and visits have been paid to cases under Domiciliary treatment in all parts of the City.

The number of cases examined at the Dispensary and the figures relating to the attendances are seen in the following table (Table E, page 53).

Reference was made in 1914 to the Pneumothorax treatment which was being carried on at Abergele Sanatorium. This has been continued during the present year, and at the Dispensary cases attend upon special days and the refills are administered by the Tuberculosis Officers.

The number of suitable cases is not large, but encouraging results have been obtained up to the present.

As part of the function of the Care Committee an effort has been made to establish selected and arrested cases in suitable work. The co-operation of various Corporation Committees was enlisted, together with outside agencies. About 50 cases have been dealt with, and many have been placed in satisfactory employment or advised in respect of their future occupation.

These cases are seen from time to time and reports of their condition received when they have not left the district.

Only a small number of cases can be dealt with in this way, however, and in all our efforts we are driven back to the necessity of forming a colony as outlined in previous reports.

There would not appear to be any other solution of this problem of finding work for the Tuberculous, and against the high initial expense there would be the value of the work done and the immense advantage to the population in diminished infection, one of the fundamental requirements in the campaign against Tuberculosis.

There is no doubt that the number of men joining the Army has reduced the applications for Sanatorium Benefit. In addition, this reduction has been further increased by the circumstance that any man capable of work of any kind has been assured of it, and the conditions of living of many of them have been improved with high wages.

TABLE E.—DISPENSARY RETURN—1915.

Diagnosed as suffering from Tuberculosis	As <i>not</i> suffering from Tuberculosis	Undiagnosed and remaining under observation	Total number examined		Number of persons diagnosed to be suffering from Tuberculosis treated at or in the Dispensary 1st January to 31st December, 1915	Number of persons who were under treatment, supervision, or observation at or in connection with the Dispensary on 31st December, 1915		
			Insured	Uninsured		Insured	Uninsured	
								Insured	Uninsured
1343	460	208	841	1170	502	791	132	295

The number of new applications for Sanatorium Benefit during the year shows a diminution of 158 males and 6 females, as compared with 1914. The figures for the two years are :—

1914	730	new applications—	Males.
	321	„	Females.
1915	572	„	Males.
	315	„	Females.

In addition to these 887 new cases, the recommendations to the Insurance Committee for current cases have occupied a great deal of time.

Each of the 3,703 reports so scrutinised has necessitated careful individual consideration.

Over 3,500 Special Nurses' reports have been attended to, and more than 800 applications for assistance have been dealt with.

To this work must be added the 1,922 examinations made and referred to in the report and the 2,180 attendances by patients at the Dispensary.

It is impossible to show in figures the additional clerical and irregular duties inseparable from the Office, but the above brief outline indicates that part of the work of the whole-time staff that can be so presented.

The final tables given relate to insured cases, and show the results of Institutional and Dispensary treatment respectively.

TABLE F.—ANALYSIS OF CASES.

(a) Residential.

	Total cases treated	Discharged from Institutions		Died	* Residential treatment discontinued in other cases	Still under Residential treatment on 1st January, 1916
		Improved	Without Improvement			
	(1)	(2)	(3)	(4)	(5)	(6)
Men	716	378	64	59	49	166
Women	239	127	28	17	12	55
Totals.. ..	955	505	92	76	61	221

* The figures in column (5) relate to cases as to the progress of which no definite report is available for various reasons—*e.g.*, the withdrawal from the Institution of the insured persons themselves before the expiration of the period for which they were nominated for the treatment.

TABLE F—*continued*(b) *Dispensary.*

	Total cases treated	Discharged from Institutions		Died	* Dispensary treatment discontinued in other cases	Still under Dispensary treatment on 1st January, 1916
		Improved	Without Improvement			
	(1)	(2)	(3)	(4)	(5)	(6)
Men	355	157	85	8	31	74
Women	147	55	14	3	17	58
Totals.. ..	502	212	99	11	48	132

* See footnote to Table F (a), column (5).

During the year 152 insured notified cases were found to have so far recovered that no evidence of active Tuberculosis could be demonstrated.

These are therefore to be regarded as arrested cases. They will, however, still remain under observation, and their health and working capacity will be reported upon periodically.

D. P. SUTHERLAND.

THE WORK OF THE CARE COMMITTEE.

This is divided into two portions: Assistance to individual patients provided from the sum handed over by the Insurance Committee. This is mentioned in Dr. Sutherland's report. The enquiries necessary are carried out by the Special Nurses appointed in connection with the clinical work of Tuberculosis. The second branch is that carried on by means of a grant from the City Council for assisting the families of consumptives exposed to risk of infection, with a view to strengthen their resistance against the disease. This assistance is only given under the condition that the precautions required to be carried out by the Medical Officer of Health are seen to be in operation.

The sum voted for this purpose is £1,500 per annum. It is not sufficient to give an adequate measure of assistance to all deserving families in need. As far as practicable, during 1915 all such families were searched out and their circumstances investigated. Even then assistance could not be given in all cases. But, as it was, the amount of assistance being given in the early part of the financial year 1915-1916 was at the rate of £3,500 per annum, and it has been found necessary to cut down the assistance very severely.

The standard of living taken is that given by Rowntree in his book on poverty, 25 per cent. being added to the cost of food and 50 per cent. to the cost of household sundries, the actual rent being taken.

Dossiers have been made for each case in which assistance has been given, and the course of events has been carefully followed. There can be no doubt whatever that this assistance has been of the greatest possible value to the families and in securing adhesion to the rules laid down. There is no more valuable part of the work being done in association with the prevention and treatment of Tuberculosis. Arrangements have now been made by which the course of this assistance can be closely followed financially, and the amount of assistance will be kept squared with the grant allotted.

MILK AND TUBERCULOSIS.

Manchester farms number 62, and have on them 221 cowsheds.

The total number of cows kept within the City is about 1,006, the maximum accommodation being somewhat higher.

Tuberculous Milk.

During the year 91 samples of milk have been collected by the Food and Drugs Inspectors in connection with Tuberculosis. The number of farmers represented in the total is 69.

Of these 69 farmers, 37 reside in Cheshire, and 6 of them (16·21 per cent.) sent tuberculous milk ; 6 live in Derbyshire, and none of them sent tuberculous milk ; 4 live in Staffordshire, and none of them sent tuberculous milk ; 22 live in Lancashire, and 3 of them (13·63 per cent.) sent tuberculous milk.

The usual table showing the percentage of farmers found sending tuberculous milk from 1901 onwards is inserted, being completed to the end of the year 1915 (see next page).

TABLE I.

YEAR	Number of farmers' milk tested during the year	Total number found to cause Tuberculosis in the experimental animal	Percentage of farmers sending Tuberculous milk	Percentage of farmers from EACH COUNTY whose milk was found to cause Tuberculosis.					
				Cheshire	Derbyshire	Staffordshire	Shropshire	Lancashire	Yorkshire
1901	272	27	9.9	10.46	9.23	8.00	10.00	...	...
1902	345	36	10.4	12.72	8.65	4.01	...	8.31	...
1903	329	45	13.6	14.76	9.58	15.15	40.00	...	...
1904	318	29	9.1	11.17	6.02	...	...	7.14	25.00
1905	565	47	8.3	10.26	6.00	6.38	...	2.98	12.50
1906	542	42	7.7	8.60	6.50	9.30	12.50	4.00	...
1907	562	38	6.76	7.71	4.48	6.94	12.50	3.70	...
1908	289	27	9.34	11.56	6.25	7.70	...	2.94	12.50
1909	535	31	5.79	4.80	7.47	8.57	11.11	3.33	...
1910	468	30	6.41	6.20	8.69	5.55	...	...	...
1911	494	51	10.32	11.11	2.5	12.12	10.00	12.20	50.00
1912	484	54	11.15	13.94	4.0	10.20	33.33	6.00	10.00
1913	486	60	12.51	13.99	11.58	9.26	33.33	5.88	20.00
1914	352	34	9.66	12.39	8.19	0	...	2.77	...
1915	69	9	13.04	16.21	0	0	...	13.63	...
Total..	6110	560	9.16	—	—	—	—	—	—

Tuberculin Test.

A table given in the Annual Report for the year 1913 shows the successful manner in which the work of keeping a herd free from Tuberculosis is being carried on. The milk produced by this herd is supplied to Monsall Fever Hospital and the Baguley Sanatorium.

Much of the credit for a notable piece of work is due to Mr. F. T. Walley, the farmer concerned, whose ready co-operation has at all times been of the greatest assistance.

The following table of samples submitted in connection with the Manchester Milk Clauses summarises the work of the year :—

TABLE 2. 1915.

Number of specimens of mixed milk taken at the station	68	
Number of specimens of mixed milk elsewhere	10	
Number of each found to contain tubercular infection	Station 7	Elsewhere 3 In addition, of 14 control samples taken at the stations and elsewhere, 3 were proved capable of causing tuberculosis.
Number of farms visited in consequence	9 Also 1 visited as result of notification or otherwise. Total visits 10.	
Number of specimens taken from individual cows as result of following up station and other samples	32 And 5 mixed samples.	
Number of milks from individual cows proved to be tuberculous out of those given in the preceding column	3	
Number of udders proved to contain tuberculous lesions	3	
Number of milks taken from individual cows as the result of <i>notification or otherwise</i> than owing to the presence of tubercle bacilli in mixed milk	2	
Number of udders in last column shown to be tuberculous by bacteriological examination	0	
Total number of specimens submitted for examination	128	

DAIRIES, MILKSHOPS, AND ICE-CREAM SHOPS.

BY DR. W. ST. C. McCLURE.

The class of milkshop predominant in Manchester is the small retail shop, overstocked with miscellaneous goods, where there are no real facilities for the proper storage of milk or for the washing of milk-vessels.

During 1915 Inspectors Greenup and Sayle made 6,333 visits to these places and endeavoured to secure the maintenance of a reasonable standard of cleanliness.

1,448 defects were noted, including 595 premises found to be in a dirty condition. In such cases a caution is usually sufficient to bring about an improvement, but the improvement wrought is in many instances temporary only, as the premises do not lend themselves to cleanliness. Hence the necessity for frequent visits.

In 14 shops the conditions were totally unsuitable, and the sale of milk was given up. In 16 other cases the premises were altered satisfactorily in accordance with specifications drawn up in the Improvements Department. For some years the sale of root vegetables and milk from the same shop has been forbidden, and during 1915 77 cases of this nature were dealt with, the sale of milk being discontinued in 26 and the sale of greengroceries in 51.

There are many practical difficulties in the way of dealing with these old-established milkshops, but it is satisfactory to note that some progress has been made.

The following table shows the work done during 1915 :—

Number of Milkshops on the Register	2,811
Visits by Inspectors	6,333
Visits paid by Medical Staff	77
Number warned to Register	444
Number of shops without Indicator over door	230
Vessels uncovered	101
Dirty Milkshops	595

Prosecutions.

Dirty Milkshops	15
No Indicator over door	2
Unregistered after caution	3

ICE-CREAM.

Ice-cream shops and ice-cream making depôts are under the supervision of the Milkshop Inspectors, who visit these premises regularly and see that the requirements of the Medical Officer of Health are carried out :—

Ice-Cream.

Number of Ice-cream places on the Register	487
Number of Inspectors' visits	1,746

Defaults.

Warned to cleanse premises	62
Boiled mixture uncovered	33
Premises in state of disrepair	51
Defective ashbins	3
Dirty clothing	22
Prosecutions	5

The following return summarises the action taken in the City of Manchester under the Public Health (Milk and Cream) Regulations, 1912 :—

REPORT FOR THE YEAR ENDED 31ST DECEMBER, 1915.

1. Milk and cream not sold as preserved cream :—

	(a) Number of samples examined for the presence of a Preservative	(b) Number in which a Preservative was reported to be present
Milk	1,254	..
Cream .. .. .	..	..

Nature of preservative in each case in column (b), and action taken under the Regulations in regard to it.

2. Cream sold as preserved cream :—

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct :—

(I.) Correct statements made	78
(II.) Statements incorrect .. .. .	..
	—
Total	<u>78</u>

(b) Determinations made of milk fat in cream sold as preserved cream :—

(I.) Above 35 per cent...	..	..	..	..	..	..	..	..	..	26
(II.) Below 35 per cent...	..	..	..	..	..	..	..	..	..	..
										—					
									Total	26
															—

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V. (2) of the Regulations have not been observed.

(d) Particulars of each case in which the Regulations have not been complied with, and action taken.

3. Thickening substances: Any evidence of their addition to cream or to preserved cream. Action taken where found.

4. Other observations, if any.

Answer to questions :—

2 (c) and (d) :—

None.

3 and 4 :—

None.

WORK DONE IN CONNECTION WITH STABLES.

The work done in order to place stable premises in a sanitary condition has been continued during the year. Owing to the circumstances of the time extensive alterations have not been insisted upon except in those cases where the conditions were such as to be an actual danger to health. In a considerable number of cases the work required has been allowed to remain in abeyance on condition that proper means were provided for the storage of manure.

Number of stables reported by Inspectors	..	..	..	..	..	..	..	..	..	155
Number visited by the Medical Officer of Health or his Assistant	..	..	..	..	..	..	..	..	..	57
Number waiting to be visited	..	..	..	..	..	..	..	..	..	87
Number disused as stables (no notices sent)	..	..	..	..	..	..	..	..	..	11
Alterations completed under notice	..	..	..	..	..	..	..	..	..	33
Notices served to remove and discontinue keeping animals	..	..	..	..	..	..	..	..	..	15
Prosecutions for non-compliance with Bye-laws relating to manure	..	..	..	..	..	..	..	..	..	15
Notices under Section 91, P.H.A. 1875, for removal of manure	..	..	..	..	..	..	..	..	..	35
Notices complied with	..	..	..	..	..	..	..	..	..	32
Prosecutions under Section 91	..	..	..	..	..	..	..	..	..	3

W. ST. C. McCLURE

FOOD SHOPS.

In November, 1914, the Local Government Board drew the attention of Sanitary Authorities to the importance of inspection of all premises whence food was being supplied to the Army. A good deal of time has therefore been devoted to this work during the year. Powers for dealing with food shops are limited, and many personal visits have been required before the necessary alterations have been carried out satisfactorily. Periodical visits by Inspector Higginbotham have done much to raise the standard of cleanliness observed in these places.

204 premises were dealt with. Of these 110 were considered satisfactory, 63 were badly defective, and in 31 defects of a less serious nature were noted.

In the case of premises badly defective a specification of the work required was prepared in accordance with the suggestions of the Medical Officer of Health, and sent to those concerned. As a result 47 premises have been altered satisfactorily some of them being entirely rebuilt, and in 7 the conditions have been improved.

Where minor defects only were reported the alterations required were usually stated in a letter. In this way 16 premises have been made structurally satisfactory, and the conditions improved in 8.

The following table gives some details of the work done :—

	Number of Premises Inspected	Number Satisfactory	Number Defective	Defects Remedied	Conditions Improved
Fresh Meat	28	19	9	5	2
Pork, Sausages, etc. ..	30	3	27	22	3
Bacon	18	6	12	6	4
Fish and Poultry	12	5	7	5	2
Bakery	20	15	5	4	1
Milk	16	8	8	3	2
Provisions	63	42	21	14	4
Other foods	17	12	5	4	1
Total	204	110	94	63	19

W. ST. C. McCLURE.

RESTAURANT KITCHENS.

In the middle of 1914 a systematic investigation into the condition of restaurant kitchens was begun. Since that time reports have been made by Inspectors on 99 premises. 59 have been visited by Dr. McClure, and specifications of the work required in order to make them suitable for the business have been served upon the owners and tenants. In 48 the work, which in many cases has meant extensive alterations, has now been completed.

W. ST. C. McCLURE.

Annual Report of the Medical Officer of Health for the year 1915, for the County Borough of Manchester, on the administration of the Factory and Workshop Act, 1901, in connection with

FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK.

I.—INSPECTION OF FACTORIES, WORKSHOPS, AND WORKPLACES.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises	Number of		
	Inspections	Written Notices	Prosecutions
Factories (including Factory Laundries)... ..	18387	253	4
Workshops (including Workshop Laundries)... ..			
Workplaces (other than Outworkers' premises included in Part 3 of this Report)			
Total	18387	253	4

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS, AND WORKPLACES.

Particulars	Number of Defects			No of Prosecutions
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness	635	635	...	...
Want of ventilation	9	9	...	...
Overcrowding	3	3	...	...
Want of drainage of floors ... ..	...	...	...	...
Other nuisances	216	212	...	...
Sanitary accommodation—				
Insufficient	17	6	...	...
Unsuitable or defective... ..	43	9	...	...
Not separate for sexes	16	5	...	...
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (S. 101) ... ..	...	...	...	...
Breach of special sanitary requirements for bakehouses (SS. 97 to 100) ...	215	215	...	1
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)	310	291	...	...
Means of escape in case of fire (insufficient)	147	14	...	3
* Total	1611	1399	...	4

* Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshops Act as remediable under the Public Health Acts.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year		Number
Important classes of workshops, such as workshop bakehouses, may be enumerated here.	Workshops	3869
	Bakehouses	629
	Total number of Workshops on Register ...	4498

5.—OTHER MATTERS.

Class	Number
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	357
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 5)—	
Notified by H.M. Inspector	25
Reports (of action taken) sent to H.M. Inspector	25
Other	73
Underground Bakehouses (S. 101) :—	
Certificates granted during the year ... ..	...
In use at the end of the year	35
Not in use at the end of the year	15

NOTE.—The Factory and Workshop Act, 1901 (S. 132), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office). If the Annual Report is presented otherwise than in print, it is unnecessary to include in the copy sent to the Home Office the portions which do not relate to factories, workshops, workplaces, or homework. The duties of Local Authorities and the Medical Officer of Health under the Act of 1901 are detailed in the Home Office Memorandum of December, 1904. A further Memorandum, on the Home Work Provisions of the Factory Act, was issued to all District Councils and Medical Officers of Health in October, 1906.

I append a brief Statement on the Memorandum of the Home Office upon the Structural requirements of the Factory and Workshop Acts, as to

I. Means of escape from fire :

Bye-laws have been in operation since 1908. These have been amended, and in their amended form were approved by the Local Government Board in 1913.

3.—HOME WORK.

NATURE OF WORK *	OUTWORKERS' LISTS, SECTION 107.						OUTWORK IN UNWHOLESOME PREMISES, SECTION 108			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110					
	Lists received from Employers						Prosecutions			Instances	Notices served	Prosecutions	Instances	Order made (S. 110)	Prosecutions (Sections 109, 110)
	Sending twice in the year			Sending once in the year			Notices served on Occupiers as to keeping or sending lists	Failing to keep or permit inspection of lists	Failing to send lists						
	Lists †	Outworkers †		Lists	Outworkers										
Con-tractors		Work-men	Con-tractors		Work-men										
Wearing Apparel—															
(1) Making, etc.	936	790	5230	31	6	162	A Notification sent with a blank list to each Employer twice a year								
(2) Cleaning and washing	2	1	2						1	2			3	3	
Household linen															
Lace, lace curtains, and nets	2		10												
Curtains and furniture hangings															
Furniture and upholstery	10	18	12												
Electro-plate															
File making															
Brass and brass articles															
Furriers	4		24												
Cables and chains															
Anchors and grapnels															
Cart gear															
Locks, latches, and keys															
Umbrellas, etc.	42	2	398												
Artificial flowers															
Nets, other than wire nets															
Fents	4		14												
Quilts	10		36												
Gold beaters															
Paper, etc., boxes, paper bags	6		20												
Window blinds	2		2												
Sponges															
Hair pads															
Carding, etc., of buttons, etc.	2		10												
Opticians	2	3													
Handkerchief hemmers	36	2	346												
Chocolates and sweetmeats															
Stuffed toys				1		1									
Total	1058	816	6104	32	6	163		1	2	2		3	3		

* If an occupier gives out work of more than one of the classes specified in column 1, and subdivides his list in such a way as to show the number of workers in each class of work, the list should be included among those in column 2 (or 5 as the case may be) against the principal class only, but the outworkers should be assigned in columns 3 and 4 (or 6 and 7) into their respective classes. A footnote should be added to show that this has been done.

† The figures required in columns 2, 3, and 4 are the total number of the lists received from those employers who comply strictly with the statutory duty of sending two lists each year and of the entries of names of outworkers in those lists. The entries in column 2 must necessarily be even numbers, as there will be two lists for each employer—in some previous returns odd numbers have been inserted. The figures in columns 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

6,250 visits were paid to houses of outworkers during the year.

A large amount of work has been done under these bye-laws, and practically the whole of the factories and workshops have been dealt with.

(Table 3—Home Work).

2. Sanitary accommodation :

Although the work has not been carried out under the Sanitary Accommodation Order, 1903, the conditions stated in the Memorandum have been enforced, and all the factories and workshops have been dealt with, although changes are constantly occurring.

3. Provision of lavatories :

This matter is dealt with by His Majesty's Inspector of Factories and Workshops.

4. Meal rooms are also dealt with in the same manner, although in a few instances these have been provided at the suggestion of the Corporation officials.

5. General ventilation. *See* return already sent to Home Office.

6. Air space. *See* Overcrowding, same return.

7. Floor space. We have no workshops to which this section applies.

8. Lighting. This matter has received attention, but no special record has been kept.

9. Temperature. This is a matter dealt with by His Majesty's Inspector of Factories and Workshops.

10. Wet floors. This is dealt with, but cases are infrequent.

11. Walls and ceilings. The requirements are systematically carried out, but the attention of the Inspectors will be specially called to the possible accumulation of dust.

12. Stability of buildings. This receives attention from the Special Department concerned.

13. Basements are discouraged. New ones are refused, or specifications are made out.

Engines, etc. This would come under His Majesty's Inspector of Factories and Workshops.

HOUSING OF THE WORKING CLASSES.

In the Annual Report for the year 1912 the procedure of the Housing Subcommittee is fully given, and need not be repeated here.

The usual tables have been prepared, but are not inserted. Owing to various causes, extensive alteration to houses has been much reduced.

The so-called conservancy system of dealing with excreta, which 12 years ago prevailed in Manchester, is now approaching abolition. This great work has partly been carried out under the Sanitary Superintendent, and partly under the City Surveyor, both, however, being under the control of the Sanitary Committee.

The alterations effected in 12 years' time are exhibited in the following table, which also shows the conversions remaining to be carried out. It is very necessary that these should not be effected without corresponding alterations in insanitary dwellings, and the rate of alterations must now be retarded. But there needs only to make conversion complete that the associated insanitary dwellings should be dealt with.

RETURN OF PAIL-CLOSETS AND MIDDEN PRIVIES ALTERED TO WATER-CLOSETS.

	Number of Pail-closets altered to Water-closets	Number of Midden Privies altered to Water-closets
From January 1st to December 31st, 1904	1,899	1,379
" " " " 1905	2,222	1,691
" " " " 1906	2,474	2,291
" " " " 1907	3,857	3,617
" " " " 1908	8,515	3,317
" " " " 1909	12,081	1,436
" " " " 1910	8,958	1,292
" " " " 1911	7,314	3,649
" " " " 1912	4,450	678
" " " " 1913	2,322	157
" " " " 1914	520	48
" " " " 1915	313	117
	54,925	19,672

The distribution of these conversions during the year 1915 is shown in the following table:—

NUMBER OF PAIL-CLOSETS AND MIDDEN PRIVIES REPLACED BY WATER-CLOSETS FROM JANUARY 1ST TO DECEMBER 31ST, 1915, AND THE NUMBER STILL REMAINING TO BE ALTERED.

District		Pail-closets replaced by Water-closets	Midden Privies replaced by Water-closets	Total substitution	Pail-closets still requiring substitution	Midden Privies requiring substitution	Total still requiring substitution
Central	1	31	..	31	137	..	137
	2	21	..	21	..	..	..
	3	5	..	5	223	..	223
Cheetham	4	..	..	..	3	..	3
	5	..	..	..	40	..	40
St. George's.....	6	..	..	..	..	..	..
	7	3	..	3	91	..	91
Ancoats	8	3	..	3	74	..	74
	9	7	..	7	91	..	91
Beswick	10	15	..	15	..	..	..
Ancoats	10	..	..	..	56	..	56
Ardwick	11	9	..	9	41	..	41
	12	25	..	25	79	..	79
C.-on-M.	13	4	..	4	43	..	43
	13	..	..	..	..	..	..
	14	120	..	120	..	..	..
Hulme	15	25	..	25	175	..	175
	16	26	..	26	32	..	32
	17	3	..	3	46	..	46
	18	..	..	..	65	..	65
Crumpsall	19	..	1	1	1	6	7
Blackley.....	20	..	5	5	..	..	..
Harpurhey.....	20	..	14	14	71	7	78
Moston	21	..	..	..	10	..	10
Newton	22	..	19	19	18	..	18
	23	13	..	13	28	..	28
Bradford	24	3	..	3	39	..	39
Clayton	25	..	36	36	43	2	45
Openshaw	26	..	..	..	6	..	6
West Gorton.....	27	..	19	19	..	4	4
Rusholme	28	..	..	..	33	..	33
Moss Side	29	..	13	13	..	12	12
Levenshulme.....	30	..	..	..	5	3	8
Gorton	{ 31 }	..	10	10	..	22	22
	{ 32 }	..	..	..	..	..	..
Totals.....		313	117	430	1,450	56	1,506

The following figures show the number of houses certified to, and dealt with by, the Committee for the year 1915 :—

	Number Certified and ordered to be Closed	Number of Houses added together or to other Houses	Number Demolished	Number Repaired and Re-opened	Number Closed	Number not Closed	Number which stand Adjourned
Totals.. ..	618	4	..	25	14	*571	4

* In 231 of these cases the owners have arranged to make alterations to meet the requirements of the Committee.

It will be seen from the foregoing tables that the rate of conversion of privies is slackening. This arises partly from the fact that comparatively few remain to be converted, partly from the circumstance that the remaining houses at which conversion is required are chiefly the residuum requiring the attention of the Housing Sub-Committee on account of their insanitary condition.

The following is a classification of the houses represented to the Committee as unfit for human habitation, arranged according to the regulations of the Local Government Board.

TABLE SHOWING THE NUMBER OF HOUSES INSPECTED AND THE NUMBER REPORTED TO THE HOUSING SUB-COMMITTEE AS UNFIT FOR HUMAN HABITATION DURING THE YEAR 1915.

Number of Dwelling-houses inspected for all purposes	80,336
„ considered by the District Inspector of Nuisances unfit for human habitation	618
„ of representations made by the Sanitary Superintendent under a Local Act	618
„ of Closing Orders made	614
„ of Dwelling-houses the consideration of which stand adjourned	4
„ put in a fit state for human habitation after Closing Order had been made	29

General character of defects stated to exist :—

Ventilation defective	271
Light defective	206
Closet accommodation defective	302
External disrepair	458
Internal disrepair.. .. .	432
Drainage defective	102
*Dampness	158
Water supply defective	22
Dirty—always immediately cleansed	17
Arrangement for deposit of refuse defective	261
Yards require paving	134
Passages require paving	82

* Nearly all insanitary houses are more or less damp, since there is no damp-proof course in the older houses.

BAGULEY SANATORIUM.

BY DR. W. H. SMITH.

REPORT FOR THE YEAR ENDING DECEMBER 31ST, 1915.

Remaining in hospital, January 1st, 1915	146
Admitted during the year	414
Total treated	560
Total discharged	321
Total deaths	72

The death-rate per cent. during the year was 12·8.

The death-rate per cent. during the previous year, 13·13.

The average stay of each patient was 109·8 days.

TABLE A.

	Number in Hospital	Admitted	Discharged	Died	Remaining
January 1st	146	22	23	4	141
February 1st	145	26	24	6	141
March 1st	144	29	25	2	146
April 1st.. .. .	143	42	28	10	145
May 1st	147	29	32	4	140
June 1st.. .. .	140	39	39	3	137
July 1st	145	29	21	2	145
August 1st	145	36	27	6	146
September 1st ..	145	35	31	10	140
October 1st	137	39	25	7	144
November 1st ..	150	45	25	11	152
December 1st.. ..	152	43	21	8	160
<hr/>					
Total for Year..	..	414	321	73	169

Table B shows the working capacity of all patients at the time of discharge :—

TABLE B.

Working Capacity on Discharge.

Full.. .. .	15
Good	35
Fair.. .. .	122
Poor	48
Nil	101
<hr/>	
Total	<u>321</u>

The results of treatment are fairly satisfactory considering the type of cases sent to Baguley.

Any early cases are recommended for removal to Abergele or Delamere.

More than a third of the cases are unable to leave their beds.

About a third of the patients are able to get up for 12 hours, and the remaining third get up for periods varying from two to eight hours. It is very difficult to persuade patients to remain a sufficient length of time.

They come into the hospital, and, soon feeling the benefit of fresh air and good food, leave at the end of six or eight weeks to return to work.

Many of these are quite unable to follow their employment for more than two or three days, and at the end of that time are in almost as bad a condition as before treatment.

During the year very poor progress has been made on the new buildings.

The dining-room was opened early in November, and this proved a very great boon, owing to its close proximity to the kitchen and to the fact that all patients able to get up could dine under the same roof.

The new male and female wards could not be opened on account of the heating apparatus not being completed.

This, however, is well advanced, and the wards will be opened early in the year.

The farming operations have proved very satisfactory this year.

Excellent crops of potatoes and green vegetables have been obtained.

Mr. Pettigrew, the Parks Superintendent, has visited Baguley, and has prepared a scheme for the laying out of the grounds surrounding the new wards.

ABERGELE SANATORIUM.

REPORT FOR THE YEAR, 1915, BY C. E. WARNER,

Temporary Superintendent.

At the end of March, 1916, the Sanatorium completed the fourth year of its existence.

In July, the Superintendent, Dr. Craig, left to join the R.A.M.C. In other directions too, the pressure, due to national demands on service and money, has been felt in increasing degree.

Total number of cases treated	181
Total admissions, excluding 1 readmission	129
Total discharges, excluding 1 discharge for the second time ..	126
Average stay of patients admitted since 1st April, 1915, and discharged before 1st April, 1916	108

Among the patients treated were 10 discharged soldiers and 2 men discharged from the navy. 31 patients were under the age of 16.

TABLE A—CLASSIFICATION OF CASES TREATED.

Class	Discharged	Still in Sanatorium	Total	Sputum contained T.B.	Remarks
Observation	23	5	28	..	Made up of— Chronic Bronchitis & negative sputum 8 cases Pre-Tuberculosis 17 Non-Tuberculosis Laryngitis 1 case Pulmonary Tumour 1 Putrid Bronchiectasis 1
Uncomplicated Non-Pulmonary Tuberculosis	6	9	15	..	Included 1 case, Hodgkin's Disease & Secondary Tuberculosis in glands of neck.
General Miliary Tuberculosis	1	..	1	1	Began apparently as acute Pulmonary Tuberculosis
Cases & physical signs of Chronic Bronchitis, but & positive sputum	5	..	5	5	.....
Pulmonary Tuberculosis—					
Stage I.	33	16	49	9	.....
" II.	21	11	32	12	.....
" III.	37	14	51	40	.....
Total	126	55	181	67	

Daily average number of patients	53
Daily average number of staff	19
	—
	72
	—
	£ s. d.
Total Expenditure, not including Interest and Sinking Fund	
Charges	5,583 15 7
Less Receipts	603 8 9
	—
	4,980 6 10
	—
	£ s. d.
Interest and Sinking Fund Charges	1,111 4 7
Total Expenditure, including Interest and Sinking Fund	
Charges, but not deducting Receipts	6,695 0 2
Cost of Provisions	2,030 10 2
Cost of each patient per week, not including Interest and	
Sinking Fund Charges, and not deducting Receipts ..	2 0 4 $\frac{3}{4}$
Cost of each patient per week after deducting Receipts ..	1 16 0 $\frac{1}{4}$
Cost of Provisions per head per week for patients and staff	
combined	0 10 9 $\frac{1}{2}$
Cost of each patient per week other than food, after deducting	
Receipts	1 5 2 $\frac{3}{4}$
Cost of each patient per week, including Interest and	
Sinking Fund Charges, and not deducting Receipts ..	2 8 5

PULMONARY TUBERCULOSIS.

Pneumo-Thorax Treatment.

The only special treatment used has been artificial Pneumo-thorax, which was induced in 8 cases. The applications of the treatment appear to be strictly limited.

Through the Tuberculosis Office enquiries were made as to the present condition of 20 cases induced by Dr. Craig. Replies were as follows:— Not traced, 3; no reply, but known to have enlisted in May, 1; no reply, but certified as free from active disease when last examined at the Tuberculosis Office, 1; recrudescence in the same or the other lung, 5; well and working, 10.

Among the patients with recrudescence was one who is now in the Sanatorium, having had a slight hæmorrhage in Gallipoli, after having undergone training without mishap.

Both in connection with this treatment and in the diagnosis of early cases continued use has been made of X-ray examination by arrangement with Drs. Barclay and Bythell.

Limitations of Sanatorium Treatment.

The poor results obtained in certain categories of cases indicate that open air treatment in the winter is unsuitable to their especial needs, except in institutions built and staffed for the purpose.

They include the acutely ill, those suffering from laryngeal disease, or from concurrent disease (*e.g.*, cardiac, renal, gastro-intestinal), and especially the large and clinically well-defined class of "Bronchitics," *i.e.*, patients in whom localised physical signs of pulmonary tuberculosis, with or without tubercle bacilli in the sputum, are associated with those of generalised chronic bronchitis and emphysema, or with repeated attacks of acute bronchitis, recurring with every period of inclement weather, and certain to lead eventually to the chronic condition. These patients are more often men than women, are usually recruited from outdoor workers, and are often mouth-breathers.

"Advanced" cases, not of the above types, often do very well; "early cases" of the kind go downhill or remain stationary, apart from more or less improvement in general condition.

Surgical Tuberculosis.

In view of proposed future developments in the accommodation here for cases of this disease, a review of the work at Pen-y-Coed may be useful.

In July, 1915, the open treatment, combined with heliotherapy, was started on the lines laid down by Rollier in Switzerland, and by various French authorities.

The open treatment differs from the customary in that dressings and retentive apparatus are reduced to the minimum, the object being to keep the affected part as much as possible in contact with the air.

Heliotherapy is carried out by the systematic exposure of the tuberculosis lesions to direct sunlight.

The treatment is only now well begun, owing to the necessity of training the nursing staff in the novel methods, and of devising suitable apparatus and clothing.

Almost without exception, the latter have been made on the premises by the institution staff from inexpensive materials.

Owing to the small numbers treated, and the short time elapsed, comparative experiments between the old and new methods have not been possible. Experience up to date, however, appears to indicate that :—

1. Patients treated out of doors make quicker and steadier progress than when confined to a ward, however well ventilated. It is hardly too strong to state that the advantage of a ward in the country, other things being equal, over one in a suburb, fails to justify the expenses of transfer.

2. Direct sunlight accelerates markedly the absorption of tuberculous infiltrations and the healing of sinuses, when these are unconnected with deep and active bone lesions.

Resulting cicatrisation is permanent and flexible in contrast to the weak and unsightly scars, resulting from treatment with "aseptic" dressings.

3. A further advantage of the method, and undoubtedly a contributing cause to its success, is the accessibility of the lesions. It is possible, on the briefest examination, and with a minimum of disturbance of the patient, to judge of the progress of a lesion, or of the effectiveness of apparatus. Moreover, "open treatment" of a discharging wound enforces frequent dressing and constant attention, which are in themselves beneficial.

In regard to this estate, the exposure of a verandah, or open-air ward, should be south-east, with removable south-western shelter, to prevent enfiling by wind.

A southern or south-western exposure admits rain in full force, and in sunny weather becomes unbearably hot in the afternoons. Moreover, for physical reasons, morning sunlight is to be preferred for therapeutic purposes.

Wood, being a poor conductor of heat, is preferable to stone as material for such a verandah.

It is, for obvious reasons, impossible to carry out "open treatment" for many cases of "surgical" tuberculosis, who suffer also from the pulmonary disease, in an institution designed for treatment of the latter only. Special accommodation should be reserved, for patients suffering simultaneously from both forms of the disease, in sanatoria for the surgical form. Of such patients, 7 were treated during the year : 2 with cervical adenitis, 1 with sternal tuberculosis, 2 with orchitis, and 2 with spinal caries.

REPORT BY MR. A. T. ROOK, SUPERINTENDENT OF THE
SANITARY DEPARTMENT.

Sanitary Department,
Town Hall, Manchester.

In presenting to the Medical Officer of Health the report of the work transacted in the Sanitary Department for the year ending 31st March, 1915, I beg to state that the City, for inspection and other purposes, is divided into 33 Districts, to each of which one Sanitary Inspector has been assigned.

In addition to these, there is a Superintendent, a Deputy Superintendent, one Chief Inspector, one Drainage, five Smoke, one Canal Boats, four Lodging-house, three Adulteration of Food, two Milkshops, ten Factory and Workshops Inspectors, including two Female Inspectors, and two Drain Examiners. There is also a staff of 30 Clerks for clerical and other work.

In the House Drainage Department there is also a Manager, ten Clerks and eight Clerks of Works for supervising and measuring up work done by the contractors employed by the department in carrying out private drainage work.

The number of complaints of nuisances of various kinds made during the year was 4,345 :—

1,848 through the Medical Officer of Health's Department.

2,483 by the public.

14 through the Police.

HOUSES LET IN LODGINGS.

Under the powers given by Section 90 of the Public Health Act, the bye-laws made thereunder have been enforced.

The number of houses on the register is 1,735. To these, 11,246 day visits and 433 night visits have been paid. 343 infringements of the regulations have been reported and dealt with.

DAIRIES, MILKSHOPS, AND COWSHEDS REGULATIONS.

Under this Order, which was made in July, 1879, and the Regulations thereunder in 1896, 2,900 milkshops and dairies and 62 cowkeepers are now on the register. The number of cows kept is 1,006. The number of visits to dairies, milkshops, and cowsheds was 4,749. Thirty-seven infringements of the regulations have been reported and dealt with.

The number of ice-cream manufacturers on the Register is 483. The number of visits was 1,015. Four infringements of the regulations have been reported and dealt with.

WORKSHOPS, BAKEHOUSES, SHOPS ACTS, AND ORDERS MADE THEREUNDER.

Workshop Acts During the year the Factory and Workshop Act of 1901 has received the careful attention of the 8 Male and 2 Female Inspectors specially appointed for the duties, the Female Inspectors devoting a large portion of their time to visiting the 3,171 houses of outworkers in the City.

**Means of Escape
in case of Fire** Provision for the means of escape in case of fire in factories and workshops has also received attention, and all known cases of danger have been dealt with.

Periodical changes will, of course, from time to time take place in various ways which will bring buildings within the meaning of the Act, and necessitate the constant supervision of the Inspectors and action on the part of the Authorities.

Bakehouses The number of bakehouses in the City is 568 ; of these 50 are situate in basement premises, and special attention has been given to them.

Shops Act The Shops Act, which came into force on the 1st May, 1912, has received attention, registers of all shops having been prepared. Orders of Exemption from compulsory closing have been made in 33 trades, and in five cases Orders fixing the day for closing have been made after the opinions of the occupier of the several classes of shopkeepers had been ascertained, and in two cases orders have been made fixing the closing hours.

Outworkers Many visits have been paid to houses in various parts of the City in which outwork is carried on, but constant visitation is necessary to maintain the standard of cleanliness which is to be desired, especially in houses in which shirt-making, handkerchief-hemming, brace-making, and umbrella-covering, etc., is done.

The people, as a rule, appear willing to carry out any suggestion made by the Inspectors to keep their houses clean ; but at the same time it is almost impossible for small houses, sometimes containing large families, to be kept in such a satisfactory condition as workshops.

**Employment of
Children Act,
1903** Considerable attention has been given to the question of the employment of children under the age of 14 years between the hours of 9 p.m. and 6 a.m., 44 persons having been summoned before the Magistrates, and in 40 cases penalties were imposed.

The tables setting forth the details of this work are given on pages 24, 25, and 26 of the report of the Sanitary Committee.

Fertilizers and Feeding Stuffs Act, 1906.

Twenty-nine samples were procured under this Act, which were submitted to Professor Delépine for analysis, four of which were reported on as adulterated.

Rag Flock Act, 1911.

Thirty-two samples were procured under this Act. Of these 29 conformed to the standard of cleanliness, two were referred to, and dealt with, by the Magistrates, and in one case no action was taken.

Fabrics (Mis-description) Act, 1913.

Thirty-three shops were visited for the purpose of obtaining samples of flannelette, but only in five cases were samples procured and guaranteed as safe and non-inflammable. Two of the samples did and three did not conform to the standard of non-inflammability. In one case the person was dealt with by the Magistrates, and in the remaining two cases the offenders were cautioned.

Destructive Insects and Pests Order, 1912.

Seventeen cases of Black Scab or Wart Disease in potatoes were reported to the Board of Agriculture and Fisheries. 326 visits were made to farms, allotments, and private gardens by the Superintendent, and in every case the orders issued in relation thereto were complied with.

SMOKE NUISANCES.

For the abatement of smoke nuisances, the five Inspectors appointed specially for this work have taken 571 timed observations of half-an-hour each, with the result that 135 notices for the abatement of nuisances have been served. Proceedings before the Magistrates have been ordered in 136 cases out of 284 offences reported. These cases were disposed of as follows:—

One hundred and twenty were summoned before the Justices, and in 82 instances fines were imposed amounting to £183 12s., and costs £49 17s. Ten were ordered to pay costs only.

Twenty-two orders of abatement were granted and served; 6 cases were excused, dismissed, or withdrawn.

Much attention during the past year, as will be seen by the above, has been given to the nuisance caused by the emission of black smoke, not only from the furnaces connected with boilers in mills, warehouses, and other works, but also from chemical and other industries, and the efforts made have already resulted in a considerable reduction of the nuisance.

Chimneys of firms in adjoining districts have also been observed in regard to smoke nuisances, and communications sent to the Authorities concerned.

PROSECUTIONS FOR OFFENCES, WITH RESULTS.

Description of Offence	Number of Sum- mons taken out	Number of Persons Fined, with Costs	Number of Persons ordered to pay Costs only	Number adjourned	Number Excused, Dismissed, or Withdrawn	Amount of Fines Imposed		Amount of Costs ordered to be Paid			
						£	s. d.	£	s. d.		
Did not affix notice in shop as to Assistants' Weekly Half-holiday	22	20	..	..	2	5	18	6	6	5	0
Did not close shop for serving customers one half-day per week	4	3	..	..	1	1	7	6	1	6	6
Did not allow Assistants to have Half-holiday	13	11	..	..	2	3	2	0	5	8	0
Shops open in contravention to the "Closing Order"	35	33	2	..	..	9	7	6	9	15	6
Neglecting to repair bakehouse	1	1	..	..	..	1	0	0	0	17	0
Bakehouse unfit for use on sanitary grounds	1	1	..	..	..	2	0	0	0	9	0
Neglecting to place workshop in sanitary condition	1	..	1	..	..	..	..	..	0	3	6
Neglecting to allow Assistants interval for meals	1	1	..	..	..	0	10	0	1	0	0
Neglecting to provide satisfactory means of escape in case of Fire after notice	4	..	..	3	1	..	..	..	..	..	..
Not having fixed in shop Abstract of Act re employment of young persons	3	3	..	..	..	0	12	6	0	12	6
Not forwarding lists of outworkers to the Department	7	3	3	..	1	1	11	0	2	10	0
Employing children under 14 years of age between 9-0 p.m. and 6-0 a.m.	44	40	1	..	3	14	5	0	21	2	6
Obstructing Inspector in the execution of his duty	2	2	..	..	..	1	10	0	0	18	0
Total	138	118	7	3	10	41	4	0	50	7	6

TABLES.

TABLE A.—MANCHESTER, 1915.

CAUSES OF DEATH AT DIFFERENT LIFE PERIODS IN THE 52 WEEKS OF THE YEAR.
PERSONS.—(MALES AND FEMALES.)

CAUSES OF DEATH	AGES AT DEATH													
	All Ages	UNDER 5 YEARS		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards
		0 to 1	1 to 5											
All Causes	12179	2136	1398	305	186	230	244	680	1076	1408	1650	1727	986	153
A.—GENERAL DISEASES.....	4820	1160	795	144	94	151	145	372	526	527	452	340	104	10
B.—LOCAL DISEASES.....	6096	649	533	115	75	66	91	277	496	825	1122	1177	603	67
C.—OTHER SPECIFIED DIS...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
D.—ILL-DEFINED DISEASES...	810	259	22	1	...	...	...	...	4	...	22	173	257	72
E.—VIOLENT DEATHS	453	68	48	45	17	13	8	31	50	56	54	37	22	4
A.—General Diseases.														
Smallpox..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Vaccinated														
{ Not Vaccinated ...														
{ No Statement.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cowpox .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chickenpox	1	...	...	1	...	...	...	...	...	...	...	...	...	...
Measles	447	104	328	14	...	...	1	...	...	...	...	...	...	...
Epidemic Rose Rash	2	1	1	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever..	83	5	46	17	5	4	4	1	1	...	...	...	...	...
Typhus .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza	136	8	5	1	2	3	1	10	19	13	29	24	15	6
Whooping Cough	70	29	39	2	...	...	...	...	...	...	...	...	...	...
Mumps	2	1	...	1	...	...	...	...	...	...	...	...	...	...
Diphtheria and Memb: Croup	105	10	69	22	2	...	1	1	...	...	...	...	...	...
Poliomyelitis	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-spinal Fever	12	5	4	1	...	...	...	1	1	...	...	...	...	...
Simple Cont: Fever.....	1	...	...	1	...	...	...	...	...	...	...	...	...	...
Enteric Fever	37	...	...	1	4	1	2	12	9	4	3	1	...	...
Asiatic Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Diarrhoea	223	148	72	...	...	...	...	...	...	...	...	3	...	...
Diarrhoea	265	204	43	...	1	1	...	1	...	3	1	5	5	1
Dysentery .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malarial Fever.....	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Actinomycosis .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pelagra .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hydrophobia .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Glanders.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Anthrax .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tetanus	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis	46	40	...	...	...	1	...	...	2	3	...	...	...	...
Gonorrhœa, Strict: Urethra...	12	...	...	...	...	...	...	...	3	3	4	1	1	...
Puerperal..	9	...	...	...	...	...	1	6	2	...	...	...	...	...
{ Septicæmia														
{ Pyæmia														
{ Phlegmasia Dol: .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Fever.....	15	...	...	...	...	1	1	10	3	...	...	...	...	...
Infective Endocarditis	14	...	...	2	...	3	1	4	1	1	2	...	...	...
Epidemic Pneumonia }	5	...	...	1	1	1	1	...	...	...	1	...	...	...
Pneumonic Fever }														
Erysipelas	30	1	1	...	...	...	...	2	5	4	6	9	2	...
Septicæmia (not puerp: ).....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pyæmia (not puerp:).....	5	...	...	1	...	...	...	1	2	...	...	1	...	...
Phlegmon	4	3	1	...	...	...	...	...	...	...	...	...	...	...
Phagedæna .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Septic Diseases.....	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Tubercular Phthisis	1135	11	30	18	35	92	91	217	283	200	113	43	2	...
Phthisis	180	1	1	1	2	13	11	39	62	31	15	4	...	...

TABLE A, 1915—continued.

CAUSES OF DEATH	AGES AT DEATH													
	All Ages	UNDER 5 YEARS		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards
		0 to 1	1 to 5											
A.—General Diseases—														
<i>continued</i>														
Tubercular Meningitis.....	111	18	50	19	15	4	3	1	1	...	...	...	...	...
Tubercular Peritonitis.....	78	13	23	11	7	6	4	7	6	...	1	...	...	...
Tubercles Mesenterica.....	13	7	4	...	...	...	...	2	...	...	...	...	...	...
Empyema.....	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Tubercle of other organs.....	50	2	7	3	6	4	...	8	10	1	4	4	1	...
General Tuberculosis.....	60	7	21	9	4	5	1	3	4	4	1	1	...	...
Prophylaxis.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Parasitic Diseases.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Starvation.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism, Delirium Tremens.....	46	...	...	...	...	...	...	6	11	13	14	1	1	...
Opium, Morphia Habit.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Opium Poisoning.....	1	...	...	...	...	...	...	1	...	...	...	...	...	...
Industrial Poisoning { Lead.....	2	...	...	...	...	...	...	...	1	...	...	1	...	...
Industrial Poisoning { Phosphorus.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Industrial Poisoning { Arsenic, &c. ....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rheum: Fever, Acute Rheum:..	55	...	...	4	6	4	8	6	8	8	5	5	1	...
Rheumatism of Heart.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chronic Rheumatism.....	31	...	...	1	...	...	1	...	2	4	10	10	3	...
Rheum: Arthritis, Rheum: Gout	20	...	...	1	...	...	...	...	2	4	1	8	3	1
Gout.....	3	...	...	...	...	...	...	...	...	1	...	...	2	...
Sarcoma.....	611	1	...	...	...	...	4	14	57	159	169	154	52	1
Carcinoma.....	58	...	...	1	...	3	4	6	5	16	13	8	2	...
"Cancer," Malignant Disease...	106	...	1	...	...	...	...	2	10	31	31	22	8	1
Stomach Ulcers.....	30	12	18	...	...	...	...	...	...	...	...	...	...	...
Septicæmia.....	6	1	...	...	1	...	1	...	...	...	1	2	...	...
Hæmophilia, Hæm: Diathesis	2	2	...	...	...	...	...	...	...	...	...	...	...	...
Leucocythæmia.....	54	2	3	3	...	2	2	4	11	13	8	6	...	...
Diabetes Mellitus.....	86	1	...	3	3	3	2	7	5	9	20	27	6	...
Other Constitutional Diseases..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Immature Birth.....	350	350	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Defects.....	82	68	9	5	...	...	...	...	...	...	...	...	...	...
Injury at Birth.....	49	49	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea.....	24	24	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast Milk.....	4	4	...	...	...	...	...	...	...	...	...	...	...	...
Starvation.....	38	20	18	...	...	...	...	...	...	...	...	...	...	...
Others of Early Infancy.....	6	6	...	...	...	...	...	...	...	...	...	...	...	...
—Local Diseases.														
NERVOUS SYSTEM.														
Inflammation of Brain.....	98	23	39	17	3	5	1	3	4	1	2	...	...	...
Softening of Brain.....	14	...	...	...	...	...	...	1	...	2	6	2	3	...
General Paraly: of Insane.....	63	...	...	...	...	1	...	5	22	22	11	2	...	...
Insanity (not puerperal).....	110	...	...	2	2	...	1	2	5	6	31	40	20	1
Epilepsy.....	1	...	...	1	...	...	...	...	...	...	...	...	...	...
Epilepsy.....	70	1	1	2	2	2	6	18	11	11	7	5	4	...
Convulsions.....	58	43	13	1	...	1	...	...	...	...	...	...	...	...
Tetanus Stridulus.....	12	6	6	...	...	...	...	...	...	...	...	...	...	...
Comotor Ataxy.....	21	...	...	...	...	...	...	1	5	8	3	4	...	...
Lesions: of Spinal Cord.....	45	...	1	2	...	...	3	3	8	8	12	8	...	...
Myelitis.....	13	...	...	...	...	...	...	2	3	6	2	...	...	...
Spinal Tumour.....	26	...	1	1	3	...	1	3	7	6	2	1	1	...
Diseases of Nervous System (other Dis:)...	20	2	1	...	...	...	1	...	3	5	3	3	2	...
DISEASES OF SPECIAL SENSE ORGANS.														
Otitis, Mastoid Disease.....	20	2	4	3	2	2	1	4	...	2	...	...	...	...
Stenosis, Nose Disease.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Strabismus, Eye Disease.....	2	1	...	1	...	...	...	...	...	...	...	...	...	...

TABLE A, 1915—continued.

CAUSES OF DEATH	AGES AT DEATH													
	All Ages	UNDER 5 YEARS		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards
		0 to 1	1 to 5	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards	
3. DISEASES OF HEART.														
Valvular Dis: Endocarditis	494	3	6	6	12	14	20	37	82	80	95	90	49	...
Pericarditis	10	...	...	...	3	...	...	1	4	1	1	...	...	...
Hypertrophy of Heart.....	9	...	...	...	...	...	1	...	...	2	1	4	1	...
Angina Pectoris	31	...	...	...	...	...	...	...	1	10	6	14	...	...
Dilatation of Heart	112	...	...	1	...	1	2	2	11	18	28	28	21	...
Fatty Degen: of Heart	27	...	...	...	...	...	...	...	1	10	9	5	2	...
Syncope, Heart Disease.....	480	3	2	4	6	5	5	19	44	79	111	134	61	7
4. DIS: OF BLOOD VESSELS.														
Cerebral Hæmorrhage.....	399	4	1	2	1	...	...	7	18	64	121	121	52	8
Apoplexy, Hemiplegia.....	144	...	...	1	...	...	...	1	6	26	31	43	33	3
Aneurism	18	...	...	...	...	...	...	1	2	5	6	2	1	1
Senile Gangrene	10	...	...	...	...	...	...	...	...	4	2	4	...	...
Embolism, Thrombosis	48	...	...	1	...	2	2	1	9	11	12	9	...	...
Phlebitis.....	4	...	...	...	1	...	...	1	2	...	...	...	...	...
Varicose Veins	2	...	...	...	...	...	...	1	...	1	...	...	...	...
Blood Vessels (Other Diseases)	138	...	...	...	...	...	...	1	12	31	53	37	4	...
5. DIS: OF RESPIRATORY SYS:														
Laryngitis	15	2	7	3	...	...	...	...	...	...	1	1	1	...
Memb: Laryng: (Not Diphth:)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Larynx (Other Dis:)	2	...	1	...	...	...	...	1	...	...	...	...	...	...
Bronchitis	1,278	167	65	3	4	1	9	13	48	122	247	374	201	24
Pneumonia { Lobar-Croupous.	344	22	24	15	8	9	6	45	44	73	57	27	12	2
{ Broncho-Lobular.	677	228	296	19	4	...	1	7	16	26	30	28	20	2
“Pneumonia”.....	68	8	11	4	1	1	...	3	3	8	14	11	3	1
Emphysema, Asthma	37	...	1	...	...	1	...	1	3	7	14	9	1	...
Pleurisy	43	2	7	2	...	...	...	2	8	7	5	6	4	...
Fibroid Disease of Lung.....	5	...	...	...	...	...	...	1	1	1	2	...	...	...
Respiratory Dis: (Other)	39	6	...	...	1	1	...	3	3	3	4	7	9	2
6. DIS: OF DIGESTIVE SYS:														
Tonsillitis, Quinsy	6	1	2	1	...	1	...	1	...	...	...	...	...	...
Mouth, Pharynx	19	7	5	...	1	1	2	...	...	2	...	1	...	...
Gastric Ulcer.....	50	...	...	...	...	...	4	8	9	20	4	3	2	...
Gastric Catarrh.....	15	8	1	...	...	...	...	...	...	1	3	1	1	...
Stomach (Other Dis:)	70	41	7	1	1	...	1	2	2	2	3	7	3	...
Enteritis.....	14	...	3	...	...	...	...	...	...	2	4	4	1	...
Gastro-Enteritis.....	10	...	3	...	...	...	...	1	1	1	...	4	...	...
Appendicitis, Perityph:	56	...	1	8	12	6	4	7	6	8	...	3	1	...
Hernia	42	1	1	...	...	...	1	4	2	8	14	9	2	...
Intestinal Obstruct:.....	33	2	...	1	2	2	1	4	...	2	6	7	6	...
Other Diseases of Intestines ...	24	9	...	2	...	...	1	3	1	2	2	3	1	...
Peritonitis	20	3	1	2	...	1	...	4	4	2	1	2	...	...
Cirrhosis of Liver.....	82	...	...	...	...	...	...	1	9	28	38	5	1	...
Liver and Gall Bladder (O.D.).	47	17	1	1	...	...	...	1	2	6	8	6	3	2
Digestive System (Other Dis:)	29	18	1	1	...	...	...	2	...	3	4	...	...	...
7. DIS: OF LYMPHATIC AND DUCTLESS GLANDS.														
Spleen, Disease of.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lymphat: Syst: (Other Dis:)	21	5	1	...	...	1	2	3	3	3	3	...	...	...
Thyroid Body (Other Dis:)	4	...	1	...	...	...	...	...	...	1	1	1	...	...
Supra Renal Caps: (Dis: of)	4	...	...	...	...	...	...	...	...	1	1	2	...	...
8. DISEASES OF URINARY SYSTEM.														
Nephritis Ac:, Uræmia	109	4	11	4	4	1	5	7	15	19	28	8	2	1
Ch: Bright's Dis: Albumin: ...	260	1	3	3	...	4	4	16	44	52	67	45	19	2
Calculus	18	...	...	...	1	2	...	1	1	4	2	5	2	...
Bladder and Prostate Dis: ...	42	...	...	...	...	...	1	1	1	2	13	16	5	3
Urinary Syst: (Other Dis:)	11	1	...	...	...	...	...	...	...	6	2	1	...	1

TABLE D.
CITY OF MANCHESTER, 1915.—CAUSES OF DEATH IN INFANCY AND
CHILDHOOD.

CAUSES OF DEATH	UNDER ONE YEAR			Total under One Year	ONE AND UNDER FIVE YEARS				Total under Five Years
	Under 3 months	3-6 months	6-12 months		1-	2-	3-	4-	
All Causes	1,069	379	688	2,136	808	293	164	133	3,534
Measles	1	5	98	104	215	64	29	20	432
Scarlatina	1	...	4	5	12	13	10	11	51
Whooping Cough	2	10	17	29	19	8	8	4	68
Diphtheria..... (Memb: Croup)	...	...	10	10	24	13	15	17	79
Fever (various forms) .....	...	...	...	...	...	...	...	...	...
Diarrhoeal Diseases	123	98	131	352	89	20	4	2	467
Syphilis	30	8	2	40	...	...	...	...	40
Tabes Mesenterica and Tuberc. Peritonitis	9	5	6	20	11	6	7	3	47
Tubercular Meningitis	2	5	11	18	19	13	8	10	68
Tuberculosis (other).....	1	10	10	21	26	17	11	5	80
Premature Birth	343	5	2	350	...	...	...	...	350
Teething .....	...	2	18	20	17	1	...	...	38
Convulsions	31	5	7	43	8	3	2	...	56
Brain Diseases (other)	7	8	17	32	23	9	7	10	81
Lung Diseases	99	84	253	436	264	92	29	27	848
Atrophy, Marasmus	152	67	37	256	14	2	2	3	277
Found Dead in Bed (over- laid)	30	12	6	48	...	...	..	...	48
Suffocation	6	4	1	11	...	...	...	...	11
Violence (other forms)	2	...	7	9	19	9	14	6	57
Ill-defined Causes.....	1	1	1	3	...	...	...	...	4
Unclassified	229	50	50	329	47	23	18	15	432

TABLE J, 1915.

INFANTILE MORTALITY IN THE CITY, AND ITS THREE MAIN
DIVISIONS.

DEATH-RATES UNDER ONE YEAR PER 1,000 BIRTHS.

CAUSES OF DEATH	City of Manchester	Manchester Township	North Manchester	South Manchester
All Causes	128·64	173·91	112·03	122·06
Measles	6·26	10·95	4·70	5·50
Whooping Cough	1·75	0·33	1·50	2·36
Other Com: Infectious Diseases†	0·90	1·66	1·07	0·56
Diarrhoeal Diseases	21·20	36·15	15·18	19·30
Tubercular Diseases‡	3·55	2·99	1·92	3·25
Convulsions	2·59	1·66	3·42	2·47
Other Nervous Diseases§	1·93	1·66	2·14	1·91
Lung Diseases	26·27	42·13	20·72	23·78
Premature Birth.....	21·09	22·56	19·90	21·20
Atrophy, &c. ||	15·42	18·92	17·11	13·35
Suffocation	0·66	0·66	1·07	0·45
Found dead in bed (overlaid) ...	2·89	5·97	1·92	2·36

† These are Smallpox, Scarlatina, Diphtheria, Membranous Croup, and various forms of "Fever including the chief forms of Typhus and Typhoid.

‡ These are Phthisis, Tubercular Meningitis, Tabes Mesenterica, and General Tuberculosis Scrofula).

§ These are Meningitis, and other diseases of the Brain and Spinal Cord.

|| These are such ill-defined causes as Atrophy, Marasmus, Debility, Inanition, &c.

TABLE K, 1915.—CITY OF MANCHESTER. ANNUAL RATES OF MORTALITY PER 1,000 PERSONS LIVING AT ALL AGES, IN THE CITY OF MANCHESTER AND IN ITS STATISTICAL DIVISIONS, FROM CERTAIN DISEASES AND GROUPS OF DISEASES.

CAUSES OF DEATH	City of Manchester	Manchester Township	North Manchester	South Manchester	City of Manchester Average of 10 years 1905-1914
All Causes	16'31	25'45	13'38	15'44	17'73
Smallpox .....	...	...	...	...	...
Measles	0'60	1'44	0'38	0'50	0'53
Scarlet Fever	0'11	0'07	0'17	0'09	0'15
Typhus Fever .....	...	...	...	...	...
Influenza	0'18	0'12	0'15	0'22	0'15
Whooping Cough	0'09	0'05	0'08	0'12	0'35
Diphtheria and Memb: Croup.	0'14	0'25	0'20	0'09	0'17
Ill-defined Fever.....	0'00	...	...	0'00	0'00
Enteric Fever	0'05	0'07	0'05	0'05	0'09
Diarrhœal Diseases	0'65	1'35	0'52	0'54	0'90
Puerperal Fever	0'03	0'04	0'04	0'03	0'03
Erysipelas	0'04	0'04	0'03	0'05	0'03
Pyæmia, Septicæmia	0'01	...	...	0'01	0'03
Phthisis (Tuberc: Pulmon:) ...	1'76	3'99	1'17	1'48	1'67
Tubercular Meningitis.....	0'15	0'19	0'17	0'12	0'25
Tuberc: Periton: Tabes Mes:..	0'12	0'27	0'11	0'09	0'13
Tuberculous Dis: (other)	0'15	0'26	0'11	0'14	0'19
Alcoholism	0'06	0'07	0'03	0'07	0'08
Cancer	1'04	0'89	0'83	1'18	0'93
Rheumatic Fever	0'07	0'06	0'08	0'07	0'06
Premature Birth	0'47	0'63	0'44	0'44	0'60
Nervous Diseases	0'74	1'13	0'65	0'68	0'92
Heart and Blood Vessels Diseases	2'58	3'36	2'24	2'55	2'45
Bronchitis	1'71	3'04	1'42	1'52	1'72
Pneumonia	1'46	3'05	1'06	1'25	1'89
Respiratory Diseases (other) ...	0'19	0'25	0'15	0'19	0'19
Digestive Organs (Diseases of)	0'69	0'82	0'60	0'71	0'78
Urinary Organs (Diseases of)	0'59	0'71	0'49	0'61	0'53
Old Age	0'70	0'57	0'56	0'80	0'51

Rates per 1,000 births—Puerperal Fever 1'45, Childbirth 2'23.

REPORT OF THE MIDWIVES SUPERVISING COMMITTEE FOR THE YEAR 1915.

The Midwives Supervising Committee present, for the information of the City Council, the following report of the operations carried on in Manchester during the year 1915 under the Midwives Act, 1902. All the usual tables have been prepared, but, on the recommendations of the Government in regard to economy in printing and stationery, etc., they are omitted this year.

The number of midwives who gave notice of their intention to practice in Manchester during 1915 was 155; of these, 30 reside without the City. In the course of the year four midwives died.

From returns made by the midwives, 9,012 births were attended by them. The total registered births in the City numbered 16,604.

INSPECTION OF MIDWIVES.

366 visits were paid, and on 209 occasions midwives were interviewed at the Public Health Office. In 7 instances the houses were found dirty, and 20 bags were unsatisfactory and incomplete. Six registers were found to be not entered up to date.

PUERPERAL INFECTION.

During the year 1915, against an average of 108 cases and 24 deaths in the ten years 1905-1914, 93 cases of puerperal infection were notified, and of these 22 occurred after abortion or premature labour. Of the abortions, 11 were at the second or third months of gestation, 8 at the fourth month, 2 at the seventh, and 1 at the eighth month of pregnancy.

The total fatal cases numbered 25, of which 6 were premature labours.

The attack-rate per 1,000 births was 5.60, whilst the case fatality per cent. was 26.9, against 21.9, the average for the years 1905-1914. The mortality rate per 1,000 births was 1.45, as against 1.25 in 1910-1914.

The usual figures prepared for Table C are as follows:—

	Number of Cases attended by					
	Midwives		Doctors		Midwife and Doctor	
	Attacks	Deaths	Attacks	Deaths	Attacks	Deaths
1915	36	5	40	13	17	7

Out of 93 cases notified, 30 patients were nursed at home, and of these 23 recovered. The case mortality was 23.3 per cent. 58 cases were removed to Monsall Hospital, and 45 recovered, the case mortality being 22.4; the remaining 5 cases were treated in other institutions, and all died.

The particulars as to the character of the labour and the results for 1915 are :—

	No. of Cases	Recovery	Deaths
Normal full term labour	35	24	11
Abnormal „ „	36	26	10
Abortion or Premature	22	18	4

SUSPENSION OF MIDWIVES.

Eighty-eight suspensions of midwives from their work occurred, chiefly on account of their having been in attendance on cases of puerperal infection or other septic conditions.

RECORDS OF CALLING IN MEDICAL AID.

During the year 1915 the number of medical records received was 2,313, as compared with 2,606 in the previous year. The numbers under the various reasons given for having advised medical aid correspond to those in previous years.

PAYMENT OF FEES.

Arising out of the summoning of medical aid, 696 applications were received from medical practitioners for payment of their fees. After careful investigation, the Committee decided to pay in 530 cases sums amounting to £452 12s. The amount paid in 1914 was £568 14s. The majority of the 166 rejected applications was owing to the income being above the scale.

The Committee continued to pay the fees of midwives for attendance on the confinements of the wives and widows of soldiers and sailors, and of other women in need of assistance as a result of the War. 964 applications were received, and in 882 of these fees were paid, the total amount being £566 10s.

STILL-BIRTHS.

The total number of still-births reported to the Office during the year was 640, as against 638 in the previous year. Out of the 640 still-births 421 occurred in the practice of doctors (these are ascertained from the Cemeteries returns) and 219 in the practice of midwives. The percentage of still-born children is 3·3; in 1914 it was 2·8.

The summary of causes to which it seemed reasonable to credit the still-births shows the principal numbers to be :—

Definite history of ill-health of the mother	41
Accident to the mother before confinement	27
Breech presentations, full time	21
“ Worry ”	17
Drink, shock, ante partum hæmorrhage	10 each

The still-birth rate was highest in the Central district, and in Ardwick, Bradford, Ancoats, Openshaw, and West Gorton.

DEATHS OF NEW-BORN CHILDREN.

Notifications of 38 deaths of new-born children before a medical practitioner could be obtained were received and investigated. In 31 instances inquests were held. In most cases "want of attention at birth" was the verdict.

CHARGES OF MALPRACTICE, NEGLIGENCE, OR MISCONDUCT.

In considering the various reports submitted to them the Midwives Supervising Committee did not find it necessary to make any report under this heading to the Central Midwives Board. Nor was it necessary to take legal proceedings against any midwife.

WORK OF THE SPECIAL NURSES.

The work done by the two Nurses during the year 1915 has been tabulated, and is as follows :—

Still-births investigated	246
Deaths of newly-born infants investigated	30
Cases of Puerperal Fever nursed at home	23
Nursing visits paid to 23 cases, and to patients with raised temperatures	545
Old Puerperal Fever cases investigated to ascertain subsequent histories	197
New Puerperal Fever cases investigated to ascertain histories ..	81
Nursing Visits paid to cases of Eczema	7
" " " " Mammary Abscess	76
" " " two Cardiac cases	5
" " " houses infected with Scarlet Fever	34
" " " " " " Measles	55
Number of cases of Skin affection in newly-born infants	97
Nursing visits paid to these 97 infants	704
Number of nursing visits paid to cases of Phlebitis	79
Special investigation into births with a view to checking the practice of midwifery by uncertified women	142
Special investigation visits concerning medical records, including visits paid to doctors	97
Nursing Visits paid for midwives during suspension and when unable to obtain a qualified substitute	63
Special visits to nursing and expectant mothers	18

2,499

REVISION OF THE RULES OF THE CENTRAL MIDWIVES BOARD.

By request of the Central Midwives Board, the Committee, at their meeting in November, had under consideration the proposed revision of the Rules of the Board, and made the following suggestions by way of amendment or addition:—

Training of Pupil Midwives.—Rule C 1 (3).—“No period of less than six months shall be deemed sufficient for the purpose.”

Medical Aid.—Rule E 20.—(2) Pregnancy—

Add under (c) “Obstinate constipation.”
“Persistent headache.”

(3) Labour—

To alter the word “malpresentation”
to “malposition.”

The rule “Presentation other than the uncomplicated head or breech” to terminate at the word “head.”

To add fresh rule: “All breech presentations to be regarded as abnormal.”

To alter: “Where two hours after the birth of the child the placenta and membranes have not been completely expelled” to read “Where one hour,” etc.

To delete the word “serious” preceding “rupture of perineum.”

(5) The rule “Any malformation or deformity in a child that seems likely to live” to terminate at the word “deformity.”

To delete the word “serious” preceding “skin eruptions.”

To add fresh rule “Jaundice continuing beyond five days.”

„ „ “Persistent blueness.”

Confinements in Midwives' Houses.—Resolved.—That the attention of the Central Midwives Board be drawn to the practice of certain midwives using their own houses for the confinement of women without proper supervision, and the Committee make the suggestion that legislation be obtained with a view to the registration of houses used for this purpose.

Puerperal Fever.—Resolved.—That it be a recommendation to the Central Midwives Board that the term “Puerperal Fever” appearing on pages 11 (k), 19 (5), 48, and 53 should be replaced by the term “Puerperal Pelvic Infection.”

If this recommendation is adopted, the “explanation of term” on page 48 should read: Puerperal Pelvic Infection; Puerperal Sepsis; blood poisoning of pelvic origin.

MATERNITY AND CHILD WELFARE SCHEME.

The Maternity and Child Welfare Scheme, as outlined in the Memorandum of the Local Government Board, has on several occasions been under consideration by the Committee, and deputations from the Medical Board of St. Mary's Hospitals and from the British Medical Association (Manchester Division) have been received. The subject continues to engage attention, and as a result of recent interviews it is hoped that an acceptable scheme will soon be formulated.

The Midwives Supervising Committee is satisfied with the beneficial results which the community has derived from the operations of the Midwives Act during the eleven years it has been in operation.

In Manchester the older type of uneducated women—the "Sarah Gamps"—has been practically eliminated. The present midwives are, on the whole, a much better type of woman in every respect, and are better trained.

On behalf of the Committee,

A. W. CHAPMAN,
Chairman.

Town Hall, Manchester,
27th July, 1916.

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