

[Report 1902] / Medical Officer of Health, Withington Local Board District / U.D.C.

Contributors

Withington (England). Local Board.

Publication/Creation

1902

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REPORT FOR THE YEAR 1902

OF

DR. RAILTON,

MEDICAL OFFICER OF HEALTH

TO THE

Urban District Council of Withington.



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REPORT

UPON THE

Urban District of Withington

FOR THE YEAR 1902.

I.

Tabular statement of the mortality within the district, classified according to diseases, ages and localities.

During the past year 370 deaths took place in the Withington Urban District among persons actually resident therein. This number is not inclusive of 30 deaths which occurred in the Chorlton Union Workhouse among persons admitted from within the district, nor of 12 deaths of residents taking place outside the district. Adding these together we obtain the full number of deaths in 1902 which belong to the district:—

Deaths of residents in the district	...	...	...	370
Deaths of residents in the Workhouse	...	...	...	30
Deaths of residents in places outside the district	...	...	...	12
				<hr/>
				412
				<hr/>

During the decade between 1891 and 1901, the Census population of the district increased from 23,838 to 33,770, which is at the rate of 993 in each year, and with the large amount of building* which has taken place

* 327 new houses were certified during 1902 as being fit for habitation.

during the year 1902, we may safely conclude that the rate of increase in population has not diminished and that to calculate the population in the middle of the year as being 35,000 is in reality to under-estimate it considerably.

With a population of 35,000 we obtain a death-rate for the whole district of 11·7, compared with 12·1 in 1901, or a gain of 14 lives over the previous year.

Table I. gives the corrected death-rates for the previous 11 years, and in it will be seen that in four years only, viz :—1894, 1896, 1897 and 1899, have the death-rates been less than in 1902. The rate is also less than the average death-rate for the past ten years by 0·2.

The number of births during the year amounted to 734 (379 males, 355 females), giving a birth-rate of 20·9, which is a little higher than it has been in any year since 1897.

TABLE I.

<i>Comparison of the death-rates and birth-rates (corrected) from 1891 to 1902.</i>												
	1891 Census Year.	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901 Census Year.	1902
Estimated population ..	24,000	25,079	26,072	27,065	28,058	29,051	30,044	31,037	32,030	33,023	34,016	35,000
Total number of deaths ...	363	340	330	284	329	315	335	387	363	408	413	412
Annual death-rates	15·0	13·5	12·7	10·6	11·9	10·9	11·4	12·4	11·3	12·3	12·1	11·7
Total number of births ...	548	540	548	542	577	602	658	593	626	671	642	734
Annual birth-rates	22·8	21·5	21·0	20·0	20·5	20·7	21·9	19·1	19·5	20·3	18·8	20·9

The death-rates and birth-rates for the year 1902 of the four townships comprising the district, considered separately, are as follows :—

	Birth-rate.	Death-rate.
Withington	18·5	12·5
Didsbury	18·3	10·
Chorlton-cum-Hardy	24·7	10·9
Burnage	32·8	18·7

In 1901 the birth-rates of the four townships were respectively :—Withington 16·2, Didsbury 18·7, Chorlton-cum-Hardy 22·2, and Burnage 22·7 ; and the death-rates were :—Withington 13·5, Didsbury 9·3, Chorlton-cum-Hardy 11·7, and Burnage 16·9. Thus the township of Burnage, which includes a considerable portion of Ladybarn, shows not only the largest birth-rate, but also by far the largest death-rate in both years. The unenviable distinction of having the highest death-rate in the district has belonged to this township since 1900, but the same importance cannot be attached to this fact as might be if the population were larger.

Table II. gives the “age-groups” in which the 412 deaths have been arranged. It hardly calls for many remarks as the proportions of the various groups remain about the same as in previous years. It may be observed however that in this table there should be, in a district truly advancing in a sanitary sense, a steady flow in the numbers from the top to the bottom

TABLE II.

<i>Table of the ages at which the deaths occurred from 1895 to 1902.</i>								
	1895	1896	1897	1898	1899	1900	1901	1902
Under 1 year of age.....	69	67	63	82	66	75	82	72
Between 1 year and 5 years	17	31	27	37	29	31	32	38
Between 5 and 15 years	6	7	14	16	8	28	13	15
Between 15 and 25 years	15	16	14	18	11	15	13	17
Between 25 and 65 years	120	119	126	132	158	157	153	144
Over 65 years of age ...	102	75	91	102	91	102	120	126

of the list, tending to show that the average age at death is increasing. We cannot say that the remark is true of the Withington district for, as we shall find in the following paragraphs, the deaths at an early age do not show very much improvement.

The large number of deaths under one year of age in 1901 as pointed out in the report for that year was mainly due to the prevalence of diarrhoea, which disease was the cause of 19 deaths in infants. During the

past year, as we shall see, diarrhœa has been almost entirely absent from the district.

The 72 deaths in infants under one year in 1902, which we have now to consider in detail, compared with the 734 births during the year, give an infantile death-rate of 98 per thousand births, a figure which is less than in any of the previous four years or than the average for the ten years 1892 to 1901.

Table III. gives the figures relating to each of these eleven years, which

TABLE III.

<i>Deaths under one year of age.</i>											
<i>Rate per thousand births from 1892 to 1902.</i>											
1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	Mean death-rate 1892-1901	1902
120	150	90	119	111	95	138	105	111	127	116	98

are, as frequently pointed out in these reports, worthy of the greatest attention. They are in the first place, strictly accurate owing to their being independent of any estimated population and in the second, they are not a little indicative of the extent to which infant life is sacrificed through ignorance and want of care. It is not desired by this statement of course, to convey the meaning that a low infantile death-rate in any one year necessarily implies an increased amount of skill or care in the treatment of infants, such a temporary improvement would probably be the result of influences beyond the control of parents, but if this rate should steadily diminish for several years in succession it would then be justifiable for us to conclude that the care of infants had improved. This unfortunately has not so far been the case in the Withington District, the average infantile death-rate is no less now than it was twenty years ago. In 1882 the rate was 100 per thousand births, in 1883 it was 76, in 1884,—90; in 1895,—99; in 1886,—110; in 1887,—94; in 1888,—99; in 1889,—126; in 1890,—132; in 1891,—122. The mean death-rate for the ten years, 1882-1891, was 105 per thousand births, compared with 116 in the succeeding decade.

The details of the deaths under one year are next given in Table IV.

TABLE IV.

<i>Causes of death under one year of age.</i>		
	1902	Corre- sponding figures for 1901.
I. Pulmonary diseases. Bronchitis, &c.	12	7
	(Measles	0
	(Whooping cough.....	2
	(Influenza	1
II. Infectious diseases...	(Tuberculosis	5
	(Venereal diseases.....	0
	(Erysipelas	1
	(Diphtheria.....	0
	(Diarrhoea	19
	(Enteritis.....	3
III. Diet diseases	(Wasting and gastro-intestinal catarrh	14
	(Convulsions	10
	(Premature birth	2
	(Debility	11
IV. Congenital diseases..	(Spina bifida	0
	(Obstruction of bowels.....	1
	(Heart disease	0
V. Other causes	(Injuries	1
	(Not classified	5
	72	82

I. In the above table we observe that pulmonary diseases account for 12 deaths in 1902, a much larger number than occurred during the previous year. The death-rate from these diseases is 16 per thousand births, which compares unfavourably with the corresponding rates of the previous three years, as seen below. This increase is dependent to a large extent upon the unfavourable weather which prevailed during a great part of the year.

Infantile death-rates from pulmonary diseases per thousand births.

Year	1897	1898	1899	1900	1901	1902
Rate	19.	26.	7.	13.	10.	16.

II. The deaths from infectious diseases (inclusive of those caused by tuberculosis), amount to 11, nearly half of which were caused by measles. The infantile death-rate from these diseases collectively is 14 per thousand births, a rate which is the same as in the previous year.

Infantile death-rates from infectious diseases per thousand births.

Year	1897	1898	1899	1900	1901	1902
Rate	16.	15.	8.	20.	14.	14.

Of the three deaths due to tuberculosis, one was certified as being pulmonary, one cerebral, and the third abdominal. As regards the first death it is of course possible that the source of infection may have existed in the house, the virus reaching the lungs by inhalation as is usually the case with adults. But this mode of infection is not common in infants and it is equally possible and indeed probable that all three deaths have been the result of tuberculous milk.

The very large proportion of the deaths in this class which were caused by measles should be noted. No doubt we may say that it is to be accounted for by the fact that the disease has been very prevalent during the year, but, we should remember that these infants were not under the same conditions as are older children who have to go to school. In the case of the former the disease was brought to their homes or they were taken to houses in which it existed, and with extra care we may suppose they might have escaped exposure to infection in many instances. Amongst the less educated unfortunately, there is still a wide spread opinion that measles is a harmless and almost inevitable child's complaint and consequently but slight precautions are taken to prevent its spread.

III. From "diet diseases" there is a greatly diminished mortality when we compare it with that of 1901, the deaths being exactly half in number.

Infantile death-rates from "diet diseases" per thousand births.

Year	1897	1898	1899	1900	1901	1902
Rate	30.	55.	63.	31.	71.	32.

We must however, accept this improvement as chiefly ascribable to the almost total absence of deaths from diarrhœa rather than to any great increase in the amount of care exercised in the bringing up of young children. It is interesting to speculate upon the possible cause of this absence in the district of one of its most fatal scourges. I have mentioned in previous reports that when a certain temperature of the soil is reached and maintained there is a development in its superficial layers of the micro-organism causing diarrhœa.

In the Annual Report for 1901, I pointed out that "on July 2nd the temperature of the soil at a depth of four feet for the first time in the year reached 56° F., and from that date it remained at the same level or higher until October 6th, when it sank. During the period between these two dates, 19 deaths from diarrhœa occurred in children under five years of age, out of a total of 22 from that disease during the whole year." In 1902 the temperature of the soil at a depth of four feet rose to 56° F. on July 5th, and remained at that height or higher until September 28th, on which date it fell to 55.9° F. Between these dates but one death from diarrhœa occurred, in an illegitimate infant, who died on September 9th.

In order to account for the remarkable difference in fatality between the two years, during very similar periods in both of which the temperature of the soil was favourable to the development of the diarrhœa microbe, we must turn to other atmospheric conditions. We find that the weather in the two periods was very different and I think it probable that the main reason for the prevalence of the disease in 1901 and for its absence in 1902 lies in the fact that in the first mentioned year, in which we had a fine summer, the soil was in a permanently dry condition, capable of easily giving up to small currents of air the dust containing the micro-organism of diarrhœa, while in 1902 there was but one week without rain during the whole of the three months, and the surface of the soil was therefore continually moist and thus incapable of allowing the micro-organism to become air-borne. There appears to be some reason for believing that other diseases, such as croupous pneumonia and enteric fever, may have their spread controlled in a somewhat similar way.

In this connection it is satisfactory to note that the practice of covering the surfaces of the back yards, in the immediate proximity of cottages, with some impervious material, such as concrete or flags, is steadily increasing in the district, for there can be no doubt that a surface consisting of the sewage sodden earth or bricks, so frequently found in the rear of old property undoubtedly encourages the spread of microbic disease.

The other items in this class, viz:—the deaths from wasting, gastrointestinal catarrh and convulsions, although not necessarily due to contaminated food, are almost invariably due to food unfitted to a child's digestive powers. It is of course obvious that the digestive organs are more important in infancy than at any other time of life and that they must be employed to their utmost capacity in preparing and supplying the material necessary for the relatively enormous growth of the body.

The extent of this growth is shown by the fact that the weight of the body normally increases threefold by the end of the first year.

This very great activity of the organs of digestion perhaps in some measure accounts for their liability to disease. In any case the extremely limited digestive powers of an infant render artificial food, even if not contaminated by micro-organisms, a dangerous substitute for human milk.

One would imagine that a good deal might be done amongst the less educated women of the district if they could be instructed as to the proper mode of bringing up their infants. Such a task no doubt would be a difficult one and it would require a person of the greatest tact to obtain the confidence and co-operation of the mothers, but a plan of this kind has already been adopted in Manchester with considerable success and might be equally serviceable in this district. It would be necessary to engage a competent nurse fully acquainted with the proper methods of rearing young children. I fear however, that such a scheme will have to be the result of private enterprise. There should be no difficulty in raising the necessary funds in the Withington district.

The deaths in the remaining classes do not call for comment.

The distribution of the 72 deaths under one year among the townships is as follows:—27 deaths in Withington, or an infantile mortality of 103 per thousand births; 14 in Didsbury, or 80 per thousand births; 25 in Chorlton-cum-Hardy, or 105 per thousand births; and 6 in Burnage, or 95 per thousand births.

Table V. presents the infantile death-rates of the various townships for 1902, with the corresponding figures of the previous seven years for comparison.

TABLE V.

<i>Comparison of the death-rates under one year in the four townships per thousand births. 1895 to 1902.</i>								
TOWNSHIPS	1895	1896	1897	1898	1899	1900	1901	1902
Withington	140	120	92	142	157	94	175	103
Didsbury	100	96	81	118	50	128	89	80
Chorlton-cum-Hardy ...	90	90	84	152	90	121	78	105
Burnage	140	148	165	132	102	114	255	95

If we take the mean infantile mortality for the whole district during 1902 as 98 per thousand births, we find that the rates of Withington and Chorlton-cum-Hardy are slightly above, while Didsbury and Burnage are slightly below it. The most noticeable feature in the table is the improvement seen in the death-rate of the township of Burnage as regards this particular age-group. What may partly account for this is the fact that during the past year there was only one death there from diarrhœa, that of an infant five months old, compared with four deaths from that disease in 1901, and no death from any of the other "diet-diseases."

We next have to deal with the 110 deaths under five years of age. In Table VI. are classified all these deaths, including those under one year which we have already considered. Corresponding figures of the preceding eleven years are also given.

TABLE VI.

<i>Deaths throughout the district in children under five years of age, from 1891 to 1902.</i>												
NAME OF DISEASE	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902
Measles	1	5	..	7	5	1	11	2	1	6	1	15
Scarlet fever	2	..	2	..	..	..	..	2	..	4	1	2
Whooping cough ..	7	10	3	1	2	9	4	5	5	3	5	1
Diphtheria and membranous croup	1	..	2	..	..	3	..	4	2	3	3	3
Enteric fever.....	..	..	..	..	1	..	..	..	..	..	..	..
Epidemic influenza	..	..	1	..	1	..	2	3	1	1	1	2
Diarrhœa	2	2	17	..	14	6	8	12	19	7	22	3
Enteritis.....	..	..	..	..	..	..	..	..	..	..	3	..
Erysipelas .....	..	..	..	..	..	..	..	..	..	..	1	..
Tuberculosis .....	..	..	..	..	..	..	..	..	..	..	14	8
Bronchitis, pneu- monia, and pleurisy	20	27	17	11	13	23	14	19	9	13	11	22
All other causes ..	67	54	63	51	50	56	51	72	58	69	52	54
Total	100	100	105	70	86	98	90	119	95	106	114	110

The large number of deaths under five years from measles in 1902 is the most striking feature in this table. It is larger than in any year since the formation of the Sanitary Authority. We have already seen that five of these deaths occurred in infants under one year. Eight of the fifteen cases belonged to Withington (one of them in the Workhouse), five to Chorlton-cum-Hardy, one to Didsbury, and one to Burnage. Further consideration with regard to the prevalence of this disease is given in Section II. On the other hand the deaths from whooping cough and diarrhœa show a marked improvement when compared with previous years. Of the two deaths under five years from scarlet fever both children were residents of Chorlton-cum-Hardy, and one of the cases died in Monsall Hospital, the disease being complicated with diphtheria. The death from whooping cough took place in Withington. Two of the deaths from diphtheria occurred in Withington and one in Didsbury. The deaths from bronchitis, pneumonia, etc., are double what they were last year.

The 110 deaths in question were distributed throughout the various townships in the following way, Withington 44, Didsbury 20, Chorlton-cum-Hardy 36, and Burnage 10.

In Table VII. the death-rates of the four townships per thousand of their estimated populations are given, with the corresponding figures of the three preceding Census years for comparison.

TABLE VII.

<i>Death-rates per thousand of the population of the different townships in children under five years of age in 1902, compared with those of 1881, 1891 and 1901. (Census years.)</i>				
TOWNSHIPS.	1881	1891	1901	1902
Withington	3·7	4·6	3·9	3·1
Didsbury	3·4	2·4	2·3	2·1
Chorlton-cum-Hardy	5·1	4·1	2·5	3·7
Burnage	1·1	8·6	7·9	5·2

In this table we have Burnage still in the position of having the largest death-rate of any township, among children under five years of age. We have found that as regards infants under one year (see Table V.) there

has been a great improvement in the infantile death-rate in this township and even in this table, although still too large, a steady reduction has apparently taken place in the death-rate since 1891.

We have now to consider the whole mortality of the district, at all ages, inclusive of those residents who have died in public institutions either within the district or outside.

TABLE VIII.

<i>Deaths of all persons belonging to the district, at all ages, in 1901 and 1902.</i>										
NAME OF DISEASE.									1901	1902
Small-pox	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	1	17
Scarlet fever	...	...	...	...	...	...	...	...	1	7
Whooping cough	...	...	...	...	...	...	...	...	5	1
Diphtheria and membranous croup	...	...	...	...	...	...	...	...	6	6
Croup	...	...	...	...	...	...	...	...	...	...
Fever	{	Typhus	...	...	...	...	...	...	...	...
		Enteric	...	...	...	...	...	...	1	1
		Other continued	...	...	...	...	...	...	...	...
Epidemic influenza	...	...	...	...	...	...	...	10	11	
Cholera	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...
Diarrhoea	...	...	...	...	...	...	...	...	24	3
Enteritis	...	...	...	...	...	...	...	...	4	1
Puerperal fever...	...	...	...	...	...	...	...	...	1	...
Erysipelas	...	...	...	...	...	...	...	...	3	1
Other septic diseases	...	...	...	...	...	...	...	...	3	7
Phthisis	...	...	...	...	...	...	...	...	26	27
Other tubercular diseases	...	...	...	...	...	...	...	...	17	11
Cancer, malignant disease	...	...	...	...	...	...	...	...	37	32
Bronchitis	...	...	...	...	...	...	...	...	24	30
Pneumonia	...	...	...	...	...	...	...	...	42	35
Pleurisy	...	...	...	...	...	...	...	...	...	2
Other diseases of respiratory organs	...	...	...	...	...	...	...	...	1	6
Alcoholism, cirrhosis of liver	...	...	...	...	...	...	...	...	4	8
Venereal disease	...	...	...	...	...	...	...	...	...	1
Premature birth	...	...	...	...	...	...	...	...	2	5
Diseases and accidents of parturition	...	...	...	...	...	...	...	...	2	...
Heart diseases	...	...	...	...	...	...	...	...	53	36
Accidents	...	...	...	...	...	...	...	...	6	6
Suicides	...	...	...	...	...	...	...	...	3	7
Injuries	...	...	...	...	...	...	...	...	1	...
All other causes	...	...	...	...	...	...	...	...	136	151
Total									413	412

As regards the large number of deaths from measles, we have already considered all but the two which occurred in children over five years of age. Both the latter belonged to the township of Withington. The disease prevailed considerably in both Withington and Chorlton-cum-Hardy during the earlier months of the year, as will be seen more fully in the second section of this report. Ten of the deaths occurred in Withington, five in Chorlton-cum-Hardy and one in each of the other townships, Didsbury and Burnage.

Of the seven deaths from scarlet fever, two have been mentioned as occurring in children between one year and five years of age, the others were all between five and fifteen. Four of the seven deaths took place in Monsall Hospital. Five of the cases belonged to Chorlton-cum-Hardy, one to Didsbury and one to Burnage.

The six fatal cases of diphtheria and membranous croup (five of the former and one of the latter disease) were distributed in the following way:—two belonged to Withington, two to Burnage, one case to Didsbury and one to Chorlton-cum-Hardy. The last case died in Monsall Hospital. Three of the deaths have already been referred to in table VI.

The death from enteric fever occurred in West Didsbury.

The 11 fatal cases of epidemic influenza took place as follows:—six in Withington, three in Didsbury, one in Chorlton-cum-Hardy and one in Burnage.

The deaths from diarrhœa, few in number, have already been discussed. They all occurred in children under five years of age.

The number of fatal cases of phthisis has kept steadily at one level during the past ten years, the average annual mortality from 1892 to 1901 being 26. This stationary condition must be taken as a favourable indication of progress as regards this disease, because in reality it constitutes a reduction in fatality when we consider that during the period in question the population of the district has increased from 25,000 to 35,000. The 27 deaths were distributed as follows:—14 in Withington, seven in Chorlton-cum-Hardy, three in Didsbury, and three in Burnage.

11 deaths occurred from "other tubercular diseases." Of these, seven were registered in Chorlton-cum-Hardy, three in Withington and one in Didsbury.

Cancer, or other malignant disease, caused 32 deaths in the district, compared with 37 in 1901. 20 occurred in Withington, six in Didsbury, four in Burnage and two in Chorlton-cum-Hardy.

In connection with some of the causes of death (not alone from the diseases known as "zymotic") which we have just been considering, I will conclude this portion of my report by strongly recommending the more systematic disinfection of all houses in which there has been a succession of families, by new tenants before entering upon their occupation. It is advisable for persons taking old houses, in which various illnesses may have occurred, to protect themselves against disease by having the walls, ceilings, floors and woodwork thoroughly washed with a one per cent. solution (one ounce to five pints of water) of chlorinated lime. This disinfectant although one of the cheapest we have, is perfectly efficient for the purpose.

Table IX. gives the death-rates per thousand of the estimated populations, in 1901 and 1902, from the principal diseases we have had under review.

TABLE IX.

NAME OF DISEASE	1901	1902
Measles	0·02	0·48
Whooping cough	0·14	0·02
Diphtheria and membranous croup	0·17	0·17
Epidemic influenza	0·29	0·30
Diarrhœa	0·70	0·08
Phthisis	0·76	0·77
Other tubercular diseases	0·50	0·31
Cancer, malignant diseases	1·08	0·91
Diseases of the respiratory organs	1·97	1·08
Alcoholism, cirrhosis of liver	0·11	0·22
Heart diseases	1·55	1·02

The figures of 1902 relating to measles and alcoholism are the only ones which compare unfavourably with those of 1901. Diphtheria, influenza, phthisis and cancer are very much on a level with the corresponding figures of 1901, while whooping cough, diarrhœa, "other tubercular

diseases," diseases of the respiratory organs and heart diseases show an improvement.

In Table X. are presented the death-rates from the seven principal zymotic diseases per thousand of the population, compared with the corresponding figures of the previous four years.

TABLE X.

NAME OF DISEASE	1898	1899	1900	1901	1902
Small-pox .....	...	...	...	...	...
Scarlet fever	0·16	0·03	0·22	0·02	0·20
Diphtheria and membranous croup.....	0·10	0·06	0·11	0·17	0·17
Measles	0·06	0·06	0·20	0·02	0·48
Whooping cough	0·16	0·15	0·08	0·14	0·02
Enteric fever	0·13	0·03	...	0·02	0·02
Diarrhœa.....	0·43	0·59	0·25	0·70	0·08

The death-rate calculated for the whole of the seven zymotic diseases in the above table is 1·0 per thousand of the population, compared with 1·14 in 1901, 0·8 in 1900, 0·9 in 1899, 1·1 in 1898, and 1·3 in 1897.

In Table XI. we have shown the ordinary death-rates for each township separately compared with their zymotic death-rates.

TABLE XI.

Township	Estimated Population	Total number of deaths.	General death-rate	Deaths from zymotic diseases	Zymotic death-rate
Withington.....	14,030	176	12·5	13	0·9
Didsbury.....	9,493	95	10·0	5	0·5
Chorlton-cum-Hardy...	9,559	105	10·9	12	1·2
Burnage	1,918	36	18·7	5	2·6

In this table we find that the township of Burnage not only has the highest general death-rate, but also the highest zymotic death-rate, occupying in this respect the same unenviable position as in 1891 (with a general death-rate of 16·9, and a zymotic death-rate of 2·6).

Didsbury is again at the head of the list both in the general death-rate and in the zymotic death-rate.

II.

A Summary of the action taken during the year for preventing the spread of disease.

Small-pox.—One case of small-pox was reported during the past year. The patient in question went to London on May 17th in consequence of the sickness of a relative there who had commenced to be ill on May 13th, and is said to have suffered from shivering, vomiting and intense pain in the back. There was no papular rash, but there were petechiae in the groins. She died on May 17th, just before her aunt reached the house. Her illness was certified to have been caused by peritonitis.

On her arrival the aunt is alleged to have assisted in the room which had been occupied by the deceased. She remained in the same house until May 27th and then returned home to Chorlton-cum-Hardy. On the 30th she began to be ill, and on June 2nd the characteristic rash of small-pox appeared.

It is of interest to mention these two illnesses together, but it is by no means to be taken for granted that they are related as cause and effect. It was suggested to the doctor in London that the young lady there had perhaps died from a malignant form of small-pox, but he negatived the idea. It is of course quite possible that the lady from Chorlton-cum-Hardy may have contracted the disease elsewhere in London.

She was removed on June 2nd to the small-pox hospital at Clayton, everyone in the house was at once re-vaccinated and the premises and bedding were thoroughly disinfected. Fortunately the disease ended here. The patient had been vaccinated in infancy, but not since.

As at the present time small-pox prevails extensively in Manchester and Salford and in many other towns in the immediate vicinity, the Withington district cannot be expected to escape some further visitation. It is satisfactory therefore to report that, under the instructions of the Newall Green Hospital Committee (a Joint Board consisting of representatives of Withington and Moss Side Urban District Councils), there is now provided a hospital for the reception of small-pox patients, fully fitted and ready for use. It consists of an iron building, which is capable of extension at need, constructed by Messrs. Humphreys Ltd., of London.

It is necessary to point out again that all residents in the district who have not already done so, should submit themselves to re-vaccination at once, as by this simple precaution they can avoid the risk of infection. It

should be remembered that even the slightest attack of the disease in any member of a family subjects the remainder of the household to great discomfort, even apart from the danger of the disease spreading among them. Another fact to be noted is that the disease in a mild form in one patient is quite capable of imparting itself in the form of an attack of the most virulent type to a person who has not been vaccinated.

Posters recommending re-vaccination have been displayed throughout the district (with the exception of an interval in the summer) since October, 1901, and it is satisfactory to know that, partly from the advice contained in the posters, and partly from a salutary warning from the disease itself in its progress towards us, a large number of persons have been re-vaccinated during the past year.

TABLE XII.

Cases of measles ascertained in 1902.

	Withington	Didsbury	Chorlton-cum-Hardy	Burnage	Totals
January	1	...	7	1	9
February	3	1	76	...	80
March	6	21	33	...	60
April.....	87	2	5	...	94
May.....	39	2	...	...	41
June	2	2	2	...	6
July .....	...	...	...	...	...
August.....	...	...	...	...	...
September .....	...	...	...	...	...
October	4	12	...	...	16
November .....	...	...	...	2	2
December	10	1	1	1	13
	152	41	124	4	321

Measles.—This fever has been very considerably prevalent and with the exception of the three summer months no part of the year has been free. The disease has also been very fatal, as we have already seen. There was a serious outbreak of this disease in Chorlton-cum-Hardy in February and March, and it became necessary to close the infant department of the National School for a month on February 3rd, and at the same time the various Sunday schools in the neighbourhood were voluntarily closed to children under seven years. In March too there was a smaller outbreak of the disease in Didsbury, which however did not necessitate the closing of any school. In April and May an epidemic occurred in Withington, and it was found desirable to close St. Cuthbert's School (which has but one department) on April 10th, and also the infant department of St. Paul's School on April 23rd, together with their respective Sunday schools (by request) as regards children under seven.

With regard to the compulsory closure of elementary schools such as above-mentioned the rule has been, as in previous years, to close the particular part of the school involved—usually the infant department—as soon as the number of scholars actually suffering from the fever has reached 10 per cent. of the average attendance. But it requires one to be very prompt in serving the closing notice as soon as the 10 per cent. stage is reached, as the disease is then spreading by leaps and bounds, and every day is of the utmost importance.

The greatest obstacle to the success of any measures taken with the object of checking the spread of measles, is the fact that scholars are frequently allowed to attend school after they have commenced with the fever and while they are thus in a very infectious condition. This unfortunate state of things it has been found impossible to avoid. The early symptoms are often very slight and easily escape notice, and even when well-marked are not in any way distinctive to the laity. A child attends school, not infrequently, up to the day of the rash and thus for three days has been spreading the disease among the other scholars before attention is called to the danger by the appearance of the rash. I have noted in my books for 1902 a list of more than 50 children who were in school for one, two or three days prior to the eruption.

The case mortality for 1902 amounts to five per cent. of the total number of attacks which have been ascertained. As however, it is probable that the existence of some cases has not come to my knowledge, the fatality may be reckoned at a somewhat smaller figure. In 1901 the case mortality was at the rate of two per cent.

It should be remembered that the fatality of measles varies within very wide limits; for instance, while in one epidemic it may be as low as two per cent. of those attacked, in another it may reach forty per cent. This difference in fatality is no doubt governed in a great measure by the varying intensity of the infection on the one hand, and on the other by the surrounding circumstances, especially perhaps the weather. I find that, in spite of the progress of education in other directions, the ignorance with regard to the treatment of children with measles remains the same. The old fallacy that it is a harmless disease, inevitable to childhood, persists and leads to insufficient care being exercised. Frequently children are allowed to run out to play before they have completely recovered from the effects of the fever.

It will have been observed from the tables that fifteen out of the seventeen deaths occurred under the age of five years, and that the remaining two were under fifteen. That is to say, eighty-eight per cent. of the deaths were under five years. This is about the usual proportion.

Printed precautions have as usual been freely distributed in the neighbourhood when cases of measles have appeared, and the school authorities have been warned as soon as possible. No disinfecting is carried out on the termination of the disease.

Scarlet fever.—This disease has not been so prevalent as it was in 1901, 109 cases having been reported, compared with 245 during the previous year. Of these 89 were in children under 15 years of age. The distribution of the 109 cases is shown in Table XIII.

The attack-rates per thousand of the respective populations of the different townships show a very great improvement when compared with the corresponding figures of 1901. Taken in their order of magnitudes these rates are as follows:—Burnage 8·3 per thousand compared with 14·7 in 1901, Chorlton-cum-Hardy 3·9 compared with 9·4 in 1901, Withington 3·1 compared with 6·6, and Didsbury 1·1 compared with 4·2.

But although the attack-rate has been lowered throughout the district the case-mortality has considerably increased. In 1901 there was only one death amongst the 245 cases, or 0·4 per cent., while last year it was 6·4 per cent. These figures tend to show that the type of disease has been much more serious in 1902 than in the previous year. We have already

had occasion to notice a similar increase in fatality in the case of measles. One reason for the much greater fatality of scarlet fever last year is the fact that several of the cases were combined with diphtheria.

TABLE XIII.

Cases of scarlet fever in 1902.

	Withington.	Didsbury	Chorlton-cum-Hardy	Barnage	Totals	Number removed to Hospital
January.....	3	...	6	...	9	3
February	3	1	4	...	8	5
March	8	3	4	3	18	14
April	6	2	5	...	13	7
May	3	1	1	1	6	3
June	5	1	2	...	8	1
July	1	...	...	...	1	1
August	3	2	2	...	7	4
September	3	...	5	3	11	8
October.....	3	...	1	3	7	5
November	2	...	5	5	12	10
December.....	4	1	3	1	9	4
	44	11	38	16	109	65

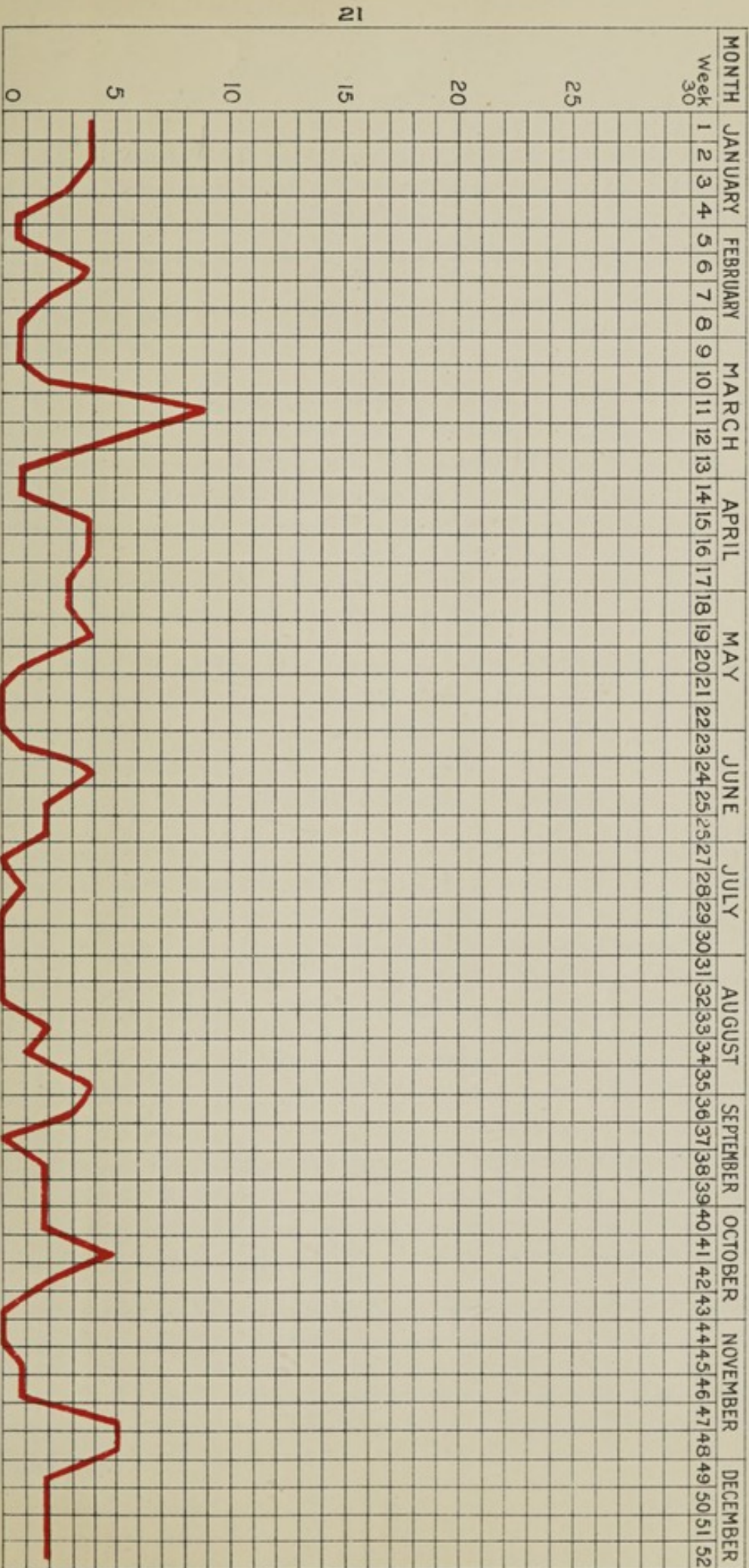
The number of cases and deaths for the preceding ten years are here given for the sake of comparison:—

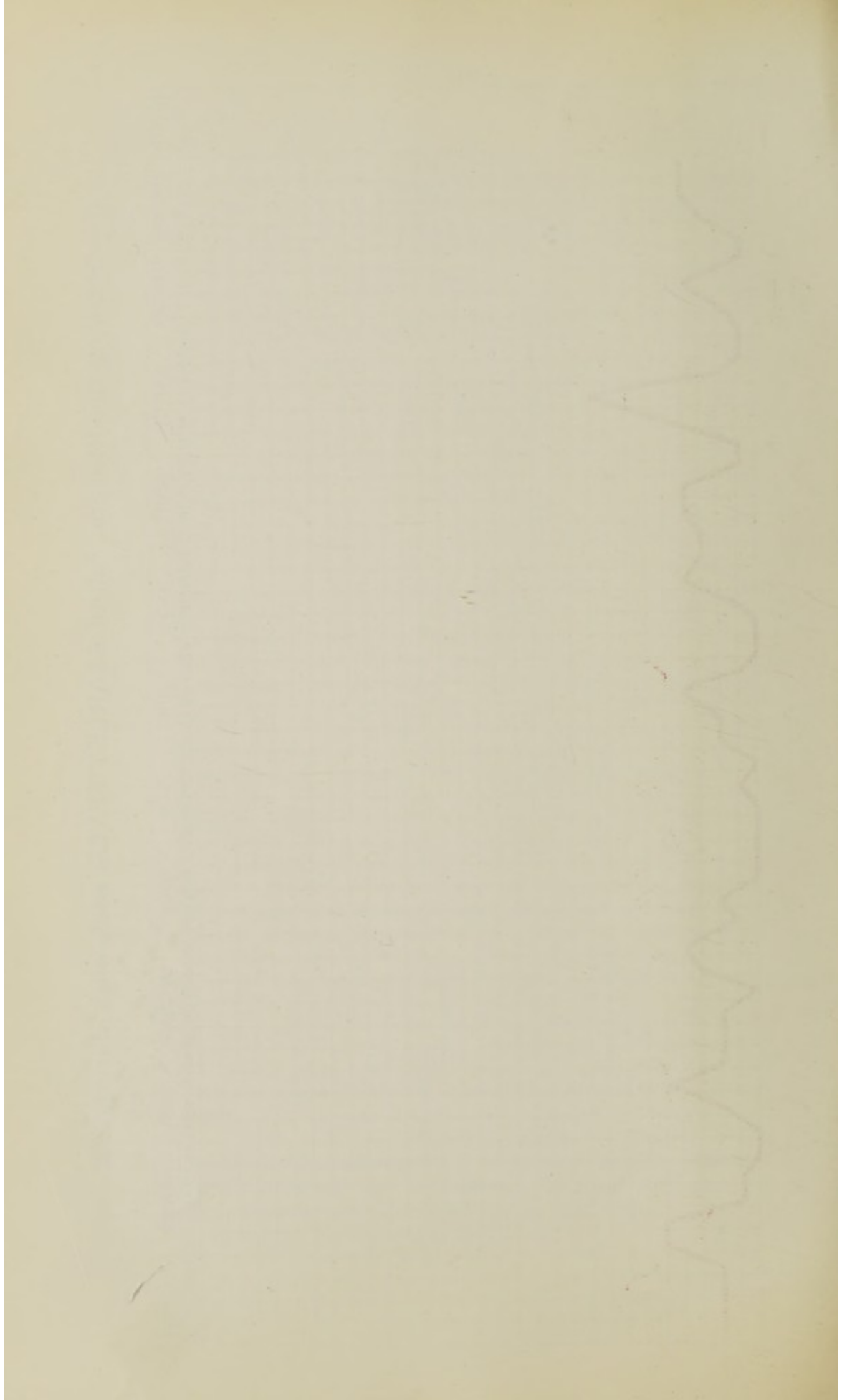
Year	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901
Cases	57	117	90	102	120	177	70	68	204	245
Deaths	1	3	4	7	3	10	5	1	8	1

There were no reasons for associating any attack of scarlet fever with the milk supply.

There were however two influences at work tending to spread the disease which must be considered, viz:—(I.) unrecognised cases, (II.) patients discharged from hospital who were, in my opinion, very probably capable of imparting scarlet fever to others after their return home.

Showing the Rise and Fall of SCARLET FEVER each week during 1902.





(I.)—In the first category I should mention a boy, aged 10 years, in Burnage, who commenced to be ill on September 1st, but his disease was only diagnosed a month later when he was at once removed to the hospital. To his case are attributable six others all of which were removed to hospital.

(II.)—As regards the so-called "return cases" the following seem to be of that nature:—

1.—F. S. aged 8 years, commenced to be ill with scarlet fever on December 18th, 1901, and was sent into hospital on the 19th. She was discharged on March 7th, 1902, having been in the institution for eleven weeks. Nine days after her return, that is, on March 16th, E. S. aged 5 years began and was removed to hospital on March 17th.

On examining F. S. (the first patient), she was found to have some catarrh of the pharynx but no discharge from either nose or ears.

2.—A. L. E. aged 8 years, commenced with scarlet fever on May 10th, and was sent into hospital on May 13th. He came home on June 20th, having been away five weeks and three days. On July 9th, or nineteen days afterwards, his brother, J. C. E. aged 10 years began to be ill and was removed the following day to hospital with scarlet fever.

On enquiry it was ascertained that A. L. E. was apparently quite well when he came home from the hospital, but a week later he began to have a sore nose, with attacks of slight bleeding from it and this had lasted until the day of his brother's illness. The mother informed me that on July 6th both boys had used the same towel, although she had been as careful as possible to keep them from contact, direct or indirect.

3.—F. M. aged 6 years, was in a hospital outside Manchester with scarlet fever from July 28th until September 12th, a period of over six weeks, and when he came out it was found that he had a discharge from the nose and little sores on the ears. He did not come into contact with his sister D. M. aged 13 years, until September 26th. She began with scarlet fever on September 28th and was removed to hospital on the 30th. She died there from complications of the disease on December 27th.

The father of the two children began with scarlet fever on October 12th and was removed to hospital on October 15th.

4.—F. R. aged 4 years, commenced to be ill with scarlet fever on September 2nd and was removed to hospital on September 4th. She was discharged on November 7th.

E. M. aged 4 years, living in a neighbouring street came to play with F. R. on November 16th, began to be ill with scarlet fever on the 17th and was removed on the 21st.

D. F. aged 2 years, living in the same street as F. R., also came to play with her on November 16th. She sickened with the fever on the 18th and was removed on the 21st.

S. E. J. aged 3 years, living some little distance off, came to the house of F. R. on November 17th and commenced to be ill with scarlet fever on November 21st. He was removed to the hospital on November 22nd and on that date F. R. who was found to be suffering from an eczematous condition of the mucous membrane of the nostrils, was sent again to the hospital where she remained until December 10th.

In three out of the four instances mentioned above, the patients who were suspected of having imparted the disease to others on their return from hospital had discharges from the nose, the other case had some catarrh of the pharynx. It seems highly probable that the secretions from nose and throat may have been the means by which infection was conveyed to the children who subsequently fell ill.

In a previous report I have mentioned the case of a child returning home after having been in a hospital for seven weeks with scarlet fever, who appeared to have given the disease to two if not three other members of the family within a short time of her return. In this instance I found a discharging patch of impetigo behind one ear but no discharge from either nose and ears.

Other "return cases" have occurred without the patient who was the supposed cause having anything apparently wrong with him.

Although the numbers we have to deal with in this district are rather small upon which to found any definite statement, Dr. W. J. R. Simpson's extensive investigations justify us in considering that there are undoubtedly persons who, on their return from a fever hospital, are capable of infecting others, and it seems probable that *any* discharge, whether from nose, ears, throat or skin may act as the vehicle by which the infection may be conveyed. It is possible also that patients, even without any visible discharge, may be infectious from the virus derived from the charged atmosphere of the wards of the fever hospital which has been stored up in the upper part of the nose and throat.

There has been no evidence during the year of any of the schools acting as centres in spreading scarlet fever.

There were 65 cases of the fever removed to hospital, two of which were sent to the new Baguley Sanatorium which was opened on December 10th, 1902, and the rest to Monsall Hospital. This is equivalent to 59 per cent. Below are given the per-centages of the preceding six years for the sake of comparison:—

Year	1896	1897	1898	1899	1900	1901	1902
Per-centage of removals. }	54	65	57	25	56	58	59

It seems desirable to mention again the various precautions which, upon the notification of a case of scarlet fever, are taken by the Council to prevent as much as possible the spread of the disease.

When a case is reported, the premises are inspected as to their sanitary condition, and all details are obtained as to any possible source of infection, together with the addresses of any schools concerned, the laundry and the milk supply. The schools and laundry are at once warned of the existence of the case. Printed precautions are handed to the occupier of the house. Disinfection of the room, bedding, etc., is fully carried out in every instance after the termination of the illness, or on the removal of the patient to hospital. The mode of disinfection is the same as that which has been in use in this district for some years, viz:—the evolution of euchlorine gas in the room, the stripping of the paper from the walls and washing down the latter with a one per cent. chloride of lime solution. The bedding has hitherto been stoved by the Manchester Corporation, but will shortly be dealt with at the Baguley Sanatorium, where we have an efficient disinfecting apparatus.

Diphtheria and membranous croup.—Twenty-six cases of diphtheria, inclusive of one case of membranous croup, were notified during the year. Of these, six proved fatal, five in the district and one in Monsall Hospital.

The average number of cases per annum during the previous ten years is 21, while the average number of deaths is 3, so that in both respects the average was exceeded considerably last year.

The figures for each of the preceding ten years are as follows:—

Year	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901
Cases	27	31	22	22	13	16	22	16	14	31
Deaths	0	6	2	0	4	2	5	2	4	6

The next table (Table XIV.) shows the distribution of the cases in point of locality and period of the year. It will there be seen that Chorlton-cum-Hardy has had the largest number of cases, while Burnage

TABLE XIV.

Cases of diphtheria in 1902.

	Withington	Didsbury	Chorlton-cum-Hardy	Burnage	Totals	Number removed to Hospital
January.....	...	...	...	...	...	...
February .....	...	...	2	...	2	1
March	2	1	5	...	8	1
April	2	...	...	...	2	...
May .....	...	...	...	1	1	...
June .....	...	...	...	...	...	...
July	1	...	...	...	1	1
August	1	...	1	...	2	...
September .....	...	...	...	...	...	...
October.....	...	...	1	...	1	...
November .....	...	1	1	..	2	1
December.....	...	3	3	1	7	1
	6	5	13	2	26	5

has had the least. It will also be observed that a far less proportion of the patients were sent into hospital than was the case with scarlet fever. This is unfortunate in my opinion, as I believe that hospital treatment is actually of greater benefit to patients suffering from the former than from the latter disease.

Of the above twenty-six cases tests were made at the bacteriological department of the Owens College in 13 instances, five in Withington, five in Chorlton-cum-Hardy and three in Didsbury. The remaining cases in which no tests were made occurred as follows, eight in Chorlton-cum-Hardy, two in Didsbury, two in Burnage and one in Withington.

Ten of the tests resulted in diphtheria bacilli being discovered in the throat swabs, in the remaining three no bacilli were found but the clinical features of the cases were sufficiently clear for the diagnosis to be maintained.

In all, thirty-eight tests for diphtheria bacilli were made for medical practitioners during the year but with the exception of the ten previously mentioned, the results were negative. During the previous year, the number of tests for diphtheria bacilli was thirty-two.

I have but one instance to report of circumstances pointing to the infection of diphtheria having been brought home from a hospital, but I think that the following case may bear that interpretation.

A. E. H. aged six years, was removed to hospital on January 18th, 1902, suffering from scarlet fever. He was sent home on April 4th. Soon after leaving the hospital it was observed by his parents that he had a discharge from the nostrils. L. H. aged eleven months, commenced with diphtheria on April 11th and died on April 18th. A swab sent to the bacteriological department of the Owens College showed diphtheria bacilli to be present. The first little boy was sent away from home on April 14th together with a brother, J. H. aged seven years. On April 24th, J. H. commenced with diphtheria and died in four days. On April 15th, the father showed symptoms of the disease and a swab taken on April 19th, was also found to contain diphtheria bacilli.

Very careful investigations were made at the hospital as regards A. E. H., but it was found that every precaution had been taken to disinfect the child's nasal passages by syringing for weeks before he was discharged and that on the morning of leaving he was carefully examined and no discharge from the nose was present. It seems probable that he contracted a cold at the time of leaving the hospital and that the nasal discharge thus induced brought down with it the virus which was stored up in the upper passages of the nose where it had resisted the action of the disinfecting douche.

It is possible that the bath he had on the morning of his discharge may have predisposed him to a catarrh. It is becoming more widely recognised now that the practice of bathing patients on the day of their dismissal from the hospital is a dangerous one, especially in cold weather.

The attack-rates per thousand of the populations of the constituent townships are as follows :—

Withington 6 cases	-	attack-rate 0·4 per thousand.
Didsbury 5 cases	-	„ 0·5 „
Chorlton-cum-Hardy 13 cases	„	1·3 „
Burnage 2 cases	-	„ 1·0 „

The case-mortality from diphtheria in 1902 was higher than in 1901. Six deaths out of twenty-six cases of illness are equivalent to 23 per cent.

In 1901 the corresponding figure was 19.3 per cent., in 1900 it was 25 per cent., in 1899 it was 12.5, and in 1898 it was 20.

The precautions taken on the occurrence of a case have been exactly the same as in scarlet fever.

Whooping cough.—A few cases of this disease have been ascertained to exist during the year, and one death of an infant, eight months old, has been registered. There has been however, no epidemic.

In all instances, upon the existence of a case being reported any school concerned has been at once informed and printed precautions have been delivered at the house in which the case occurred.

Enteric fever.—Six cases of enteric fever have been reported in 1902, compared with eleven in 1901, eight in 1900, sixteen in 1899, twenty-five in 1898, ten in 1897 and ten in 1896. The average for the previous six years is thirteen.

Table XV. shows the distribution of the cases as regards locality and period of the year.

TABLE XV.

Cases of enteric fever in 1902.

	Withington	Didsbury	Chorlton-cum-Hardy	Burnage	Totals.	Number removed to Hospital.
January.....	1	...	...	...	1	...
February .....	...	...	...	...	...	...
March .....	...	...	1	...	1	1
April .....	...	...	...	...	...	...
May .....	...	...	...	...	...	...
June .....	...	..	...	...	...	...
July .....	...	...	...	...	...	...
August .....	...	...	...	...	...	...
September .....	...	..	...	...	...	...
October.....	1	2	...	...	3	1
November .....	...	1	...	...	1	1
December.....	...	...	...	...	...	...
	2	3	1	...	6	3

One of the cases proved fatal. There was good evidence forthcoming that in two instances the disease had been contracted in other localities, the other four cases probably arose within the district. In three of the cases the blood serum was submitted to the bacteriological test with the result that in two a complete re-action was obtained and in the third the re-action was incomplete. In the other three cases the test was not taken advantage of. In thirteen doubtful cases the test was applied with a negative result; total, sixteen tests, compared with eighteen in 1901 and fourteen in 1900.

The precautions taken upon the occurrence of a case have been the same as in previous years, viz:—special pails for the reception of the evacuations have been provided at every house in which a case of enteric fever has existed and also, at the request of the doctor in attendance, at any house in which an illness has occurred of a doubtful nature which might possibly be typhoid fever. Printed precautions have been sent to the householder and careful enquiries have been made into the possible sources of the disease. On the termination of the case or removal of the patient, the water-closets and ashpits have been thoroughly disinfected with corrosive sublimate solution.

Diarrhœa.—The three deaths from this disease have already been considered. No other cases of diarrhœa have been reported. The following directions have been issued during the summer both in the form of hand-bills and placards:—

PRECAUTIONS AGAINST SUMMER DIARRHŒA IN YOUNG CHILDREN.

Infants fed at the breast thrive much better than those fed by hand and are *much less liable to summer diarrhœa.*

If you have an infant whom you are compelled to feed by hand, do not give any milk which has not been *thoroughly boiled*, do not use a feeding bottle which has a tube and see that the bottle has been well scalded and cleansed each time before use.

Keep the back yard clean and flush every drain daily with a bucket of clean water.

Keep your house as clean as possible and let plenty of fresh air into it.

Erysipelas.—Ten cases of erysipelas have been notified during the year, one of which proved fatal. Four of the cases were in Withington, four in Didsbury and two in Chorlton-cum-Hardy. With the exception of one case, no disinfection was carried out at the termination of the cases, although the offer was made to do so in all.

It was ascertained that no monthly nurse or midwife was in attendance upon any of the cases.

Puerperal fever.—One case of puerperal fever was notified. Disinfection was thoroughly carried out at the end of it.

Phthisis.—Twenty-seven deaths from phthisis took place during the year, compared with twenty-six in 1901 and thirty-eight in 1900. Fourteen occurred in Withington, three in Didsbury, seven in Chorlton-cum-Hardy and three in Burnage.

The twenty-seven deaths were followed by complete disinfection of the rooms which had been occupied by the patients in twenty instances, and by partial disinfection in four. Disinfection was refused in three cases. The results of the previous two years are given for the sake of comparison :—

	1900.	1901.	1902.
Fatal cases of phthisis	38	26	27
Room of patient disinfected, paper stripped and walls washed down with one per cent chloride of lime solution and bedding stoved ...	11	20	20
Partial disinfection	3	1	4
No disinfection	24	5	3

(Disinfection after phthisis was commenced on March 8th, 1900).

Three of the deaths occurred in the Chorlton Union Hospital among the inmates belonging to this district. In two of the cases the rooms which had been occupied by the patients before they entered the work-house were partially disinfected, but in the third all offers of assistance were refused.

The following instructions have been printed for the use of medical men practising in the district, who are thus enabled to hand them to the persons in charge of their patients as a perpetual reminder of their duties.

HINTS FOR NURSING A CASE OF PHTHISIS.

The expectoration is the sole medium by which this disease is spread. No spitting upon the floor or ground should ever take place.

A special receptacle should always be used to spit into and the expectoration should be burnt.

The atmosphere of the bedroom is kept much purer by having no carpet. Cork carpeting, linoleum or the bare boards should be wiped over daily with a damp cloth, and any mats, placed at the sides of the bed, should be shaken outside daily and exposed to the sun.

The tops of all furniture, doors, window ledges, pictures, etc., should be wiped with a damp cloth daily.

There should be no cornice at the window, only a pole. The curtains should be washable and frequently washed.

The window should be kept open night and day, both top and bottom, but there should never be any draught.

It is well for the patient to remain out of doors as much as possible, and there need be no fear of any kind of weather, providing sufficient clothing is worn.

A room will be disinfected at any time by the Withington District Council on request, free of cost.

These rules or any part of them are subject to the approval of your doctor.

Cards forbidding spitting except into proper receptacles have been hung in every licensed premises throughout the district, also in the waiting rooms and closets of the railway stations and in many workshops where men are employed.

The death-rate per thousand from phthisis for the year is 0·77 compared with 0·76 in 1901, 1·4 in 1891 and 1·05 in 1881, all three being Census years.

Removal to hospital.—The total number of patients removed to hospital during the year 1902 is 77, compared with 163 in 1901 and 121 in 1900. The details for last year are given in the table below,

Patients removed to hospital:—

Monsall Hospital.		Baguley Sanatorium.	
Scarlet fever	63	Scarlet fever	2
Diphtheria	4	Diphtheria	1
Enteric fever	3		—
German measles	1		<u>3</u>
Erythema	1	Clayton Hospital.	
Tonsillitis	1	Small-pox	1
	<u>73</u>		<u>1</u>

Table XVI. gives the number of patients removed to hospital for the three fevers:—Scarlet fever, diphtheria, and enteric fever, in the different years from 1895 to 1902 inclusive, together with the total number of cases of each, and the per-centage of removals to cases during the year.

TABLE XVI.

<i>Per-centage of patients removed to hospital suffering from scarlet fever, diphtheria and enteric fever, from 1895 to 1902.</i>			
Year.	Number of cases of fever in the district.	Removed to Hospital.	Per-centage
1895	S. F. 102. D. 22. E. 20... Total 144	49	34
1896	S. F. 120. D. 13. E. 10... „ 143	63	44
1897	S. F. 177. D. 16. E. 10... „ 203	121	59
1898	S. F. 70. D. 22. E. 25... „ 117	54	46
1899	S. F. 68. D. 16. E. 16... „ 100	28	28
1900	S. F. 204. D. 14. E. 8... „ 226	120	53
1901	S. F. 245. D. 31. E. 11... „ 287	162	56
1902	S. F. 109. D. 26. E. 6... „ 141	73	51

Disinfection.—The total number of articles stoved by the Manchester Corporation on behalf of the Council in 1902 was 4,164, and consisted of the following:—Beds, 251; mattresses, 282; pillows, 677; blankets, 535; counterpanes, 156; carpets, 399; various articles of clothing, 1,499; and sundries, 365.

III.

An account of the sanitary state of the district generally at the end of the year.

Zymotic disease.—The district is seriously threatened with small-pox, which is gaining ground rapidly in Lancashire. More than one person suffering from the disease has been in the district since the beginning of the year and it is surprising that cases have not already occurred here. It is however satisfactory to know that the Newall Green Small-pox Hospital is ready at an hour's notice to receive any patients we may require to send there.

Scarlet fever and measles are rather prevalent throughout the district at present, and in January we have had eighteen cases of the former and twenty-seven of the latter disease. Withington and Chorlton-cum-Hardy have hitherto been the two townships to suffer the most from these complaints.

At the time of writing there are five patients in Monsall Hospital and fourteen in Baguley Sanatorium from the Withington district.

Water supply.—Three analyses of water have been made during the past year, and in two instances the water was found to be exceedingly impure. In both of these cases Manchester water has since been substituted in lieu of the pumps. Manchester water has also been provided to Oak House Farm, Chorlton-cum-Hardy, to replace the water of a shallow well which had been found to be unsatisfactory.

One analysis showed the water from the pump at a farm in Millgate Lane, Didsbury, to be free from pollution and no action has been taken for the present.

Most of the milk farms of the district are now supplied with Manchester water which is used for washing the cans instead of the water from shallow wells—always liable to pollution.

Drainage of the district.—The new main outfall sewers and outfall works, which were commenced in the summer of 1901, are now approaching completion and the pumping machinery is in operation.

The sewerage system is being steadily extended and year by year the number of houses without a proper outlet for their drainage is becoming less. The houses situated entirely on the outskirts of the district must necessarily remain in their present condition for many years to come, with cess-pools to receive the drainage, but their number is not large.

Building in the district during the year.—327 new houses have been certified as fit for habitation during the year ending December 31st, 1902. Withington, inclusive of Whalley Range, had 52 new houses, compared with 59 in 1901 and 169 in 1900; Didsbury had 34 new houses, compared with 37 in 1901 and 66 in 1900; Chorlton-cum-Hardy had 182 new houses, compared with 220 in 1901 and 191 in 1900; Burnage had 59 new houses, compared with 14 in 1901 and 14 in 1900. Since the appointment of an Inspector in April 1897, who is responsible for the water-test being applied to the drains of new houses, 2,329 new houses have been certified as being fit for habitation, and it is satisfactory to believe that there is little chance of their being or becoming insanitary from any defect in their drains. The 327 new houses, on the supposition that the average number of persons occupying each house is 4·6, would give us an increase in population during the year of 1,504, but as many of the new houses are small in size and probably contain a smaller average number than 4·6 it is safer to take the increase as being about 1,000.

Hospitals for infectious fevers.—The Baguley Sanatorium was opened for the reception of patients suffering from scarlet fever, diphtheria or enteric fever on December 10th, 1902.

The following brief description may be of interest:—

The estate upon which the Sanatorium stands consists of a little more than 38 acres, acquired by the Withington Council at a cost of £5,500, and of this area of land, 12 acres are at present enclosed for hospital purposes. Within the boundary there are five separate blocks of buildings, providing accommodation for 56 scarlet fever patients, 16 diphtheria, 20 enteric patients and 8 isolation beds, or a total of 100. There is also an administrative block in which the resident medical staff, the matron superintendent, 25 nurses and 3 domestic servants can be located, whilst in the kitchen block, provision is made for 19 female and 3 male servants, in addition to a dispensary and store rooms. Each of these blocks is distinct from either of the others, and the principle of isolation in regard to the entire disposition of the various buildings has been carried to the

fullest extent. The buildings are of a plain and substantial character. The water supply is obtained from the North Cheshire Water Company. The sewage is dealt with upon the site by the septic tank process.

The hospital is intended to provide accommodation for patients from the districts of the following authorities :—

Authorities.	Census Populations, 1901.
Withington Urban District Council	33,770
Moss Side „ „	26,677
Levenshulme „ „	11,485
The Bucklow Joint Hospital Board (which comprises representatives of the Alderley Edge Urban District Council, the Ashton-on-Mersey Urban District Council, the Knutsford Urban District Council, the Wilmslow Urban District Council, the Sale Urban District Council and the Bucklow Rural District Council).	57,462
Total ...	<u>129,394</u>

Accommodation is set apart for patients sent from these districts in the following proportions :—Bucklow Joint Hospital Board, 35 beds; Moss Side Urban District Council, 20 beds; Levenshulme Urban District Council, 10 beds; and Withington Urban District Council, the remainder.

The Newall Green Small-pox Hospital which is now ready for any case of the disease which may arise either in the Withington or Moss Side District, is situated about a mile south of the Baguley Sanatorium. It stands upon a site of about 23 acres, acquired by the Withington Council.

IV.

An account of the enquiries made by the Medical Officer of Health as to conditions injurious to health existing in the district, and of the proceedings relating to such conditions, in which he has taken part or advised under the Public Health Act, 1875.

The work of the Health Department has been going on steadily during the year. It will be seen by the subjoined summary that a large number of insanitary premises have been visited and dealt with.

The number of premises of which the drains have been submitted to the smoke-test is not so large as in 1901. This is to be regretted, the test, as applied by the Council, being an excellent one. In the examination every drain is exposed and tested and all joints and fittings of soil pipes, ventilating shafts and water-closets are submitted to the full pressure of the smoke, so that it is almost impossible for any defect to escape discovery. Since 1890, when the test was first applied by the Council, 276 premises have been examined in this manner up to December 31st, 1902, giving an average of 21 per annum. After the test there has been no difficulty in having all defects thoroughly remedied, the work being supervised and all drains water-tested by the Inspector of sanitary alterations.

Offensive privies and ashpits, so frequently mentioned in these reports, still exist in considerable number in the district and the progress of conversion into water-closets is regrettably slow, still no year passes without some substitutions taking place, and in all new properties water-closets are invariable provided. During the year 41 privies have been replaced under notice by water-closets and 18 without notice. Total 59.

Summary of action of the Health Committee during the year.

Notices served for the alteration of insanitary properties having reference to 331 houses, and three farms	131
Insanitary properties altered without notice (houses)	50
" " " " " (stables)	2
" " " " " (cowsheds)	2
Notices, etc., on account of filthy premises	5
Notices under Dairies and Cowsheds Orders	4
Notices to enter premises under section 41 of the Public Health Act.	33
Notices, etc., on account of injurious and foul accumulations:	
Nightsoil tips	0
Manure heaps	1
Other injurious accumulations	0

Notices, etc., on account of animals kept so as to be a nuisance ..	4
Notices, etc., on account of overcrowding	3
Notices, etc., in connection with slaughter-houses	0
Notices, etc., in connection with the sewers	0
Notices, etc., in connection with stables.. .. .	5
Notices, etc., on account of filthy streams	0
Premises inspected as to their sanitary condition after cases of infectious fever	163
Premises disinfected after fevers (including phthisis)	173
Premises smoke-tested.. .. .	13
Premises inspected, but no action required	62
Back passages reported and referred to the Highways Committee ..	0
Inspection of grave at Chorlton-cum-Hardy Parish Church	1
Water analyses	3
Milk analyses	6
Butter analyses	6
Legal proceedings on account of insanitary properties	0
Chimney firing	7
Chimney firing, fines for (amounting to 10/6)	6
Seizure of food as unwholesome	0
Prosecution on account of black smoke	0

Although the exact number of notices served during the year for the alteration of insanitary properties was 131, two of these were duplicates and the number is thus reduced to 129. These notices related to 331 houses and three farms, being more by 65 than in the previous year, and being also above the average of the previous three years.

The following list gives some information as to the character of the work done in many of the sanitary alterations. This does not take into account the re-laying of drains, with cemented water-tight joints, always water-tested before being passed and trapped with gully traps of self-cleansing pattern.

	Under notice.	Without notice.	Total.
Defective water-closets replaced by new ones	22	7	29
New soil pipes of $\frac{1}{4}$ inch metal	15	6	21
Ventilating shafts provided to soil pipes and at head of drains	38	14	52
Manholes with intercepting traps	16	5	21
Intercepting traps without manholes	1	1	2
Cellar floors flagged or concreted	4	14	18
Cesspools removed	0	2	2

Dairies and cowsheds.—Four notices were served under the Dairies and Cowsheds Orders, compared with three in 1901 and four in 1900. Of the four notices, three have been complied with and others, standing over from 1901, have also been satisfactorily completed, so that there is only one notice left with its requirements still unfulfilled.

The cowsheds in the district have been regularly inspected and have been found to be kept in a satisfactory manner. Two practices however which tend to defeat the object of the Council's bye-laws, should be mentioned, viz:—on various occasions more than the proper number of cows have been found to be temporarily put into the shippens, while in the second place, the means provided for efficient ventilation are frequently not utilised. There is much difficulty in dealing with such cases.

The dairies in the district are maintained in a satisfactory condition.

*Particulars as regards milk sellers, bakehouses,
slaughter-houses, etc.*

Registered milk sellers in the district	120
Registered cowkeepers	35
Cowsheds	71
Number of bakehouses (W 9, D 10, C 13, B 2)	34
Number of slaughter-houses (W 2, D 2, C 1)	5

(The slaughter-house in Chorlton-cum-Hardy is not used at present)

Bakehouses.—There still remain eight cellar bakehouses in the district, two in Withington, three in West Didsbury and three in Chorlton-cum-Hardy, but under the provisions of the Factory and Workshop Act, 1901, sect. 101 (4) by which “an underground bakehouse shall not be certified as suitable unless the District Council is satisfied that it is suitable as regards construction, light, ventilation and in all other respects,” these bakehouses will cease to be used at the end of 1903, as after careful consideration the Council has found it impossible to certify that any one of the eight cellars complies with the requirements specified. A warning was given soon after the publication of the Factory and Workshop Act, 1901, to the occupiers of these bakehouses of the intention of the Council not to grant certificates, so as to give them time to make the necessary alteration in their premises or to find others, before the end of the present year. The condition of the bakehouses during the year will be dealt with in the report on the administration of the Factory and Workshop Act, 1901, so far as this administration is in the hands of the District Council.

Slaughter-houses.—Four slaughter-houses are at present in use in the district. They have been frequently inspected during the past year and have been found to be satisfactory.

There are no offensive trades carried on in the district.

Ashpits, etc.—The number of ashpits emptied is as follows:—Ashpits with privies, 7,277; ashpits without privies, 12,192; movable receptacles, 97,657; cesspools, 100. Number of loads of refuse collected, 15,949.

V.

Report on the administration of the Factory and Workshop Act, 1901, in so far as this administration is in the hands of the District Council and is concerned with matters in the department of the Medical Officer of Health.

1. *Workshops.*—An Inspector of Workshops was appointed under the Factory and Workshop Act, 1901, on July 29th, 1902, and has visited and registered 300 workshops.

Attention has been given in every case to the cleanliness and ventilation of all workshops and workplaces inspected.

The cubic capacity of every workshop has been measured, cards have been placed in each room fixing the number of workpeople allowed, and in certain cases where suitable and sufficient sanitary conveniences have not been provided, the fact has been reported to the Medical Officer of Health.

Laundries worked for trade without mechanical power and coming within the category of workshops have also been inspected with regard to the drainage of wet floors in addition to the other requirements of the Act.

The 300 includes by far the greater number of workshops within the Withington district, but some workplaces still remain to be dealt with. The register of workshops, which is complete up to date, contains in separate columns the source of information and date as to occupation, the date of entry in the register, the name and situation of the workshop, the names and postal addresses of the occupier and owner of the premises and the nature of the employment.

In a second book, the "workshop record book," the following information is collected:—the dates of visits to the premises, the address, the number of persons employed, male and female, details as to general cleanliness, sanitary condition, whether any necessity exists for ordering cleansing or whitewashing, the number of rooms occupied by workers, their cubic space, and the permissible and actual number of persons employed, also the mode and efficiency of ventilating and whether any wet floors exist and are properly drained. As the Public Health Acts Amendment Act, 1900, has been adopted by the Withington Urban District Council, the proper provision of suitable and sufficient sanitary conveniences has been noted in the column arranged for that purpose.

2. *Bakehouses.*—With regard to the bakehouses of the district, amounting to 34 in number, they have all been visited and registered. There are no bakehouses in the district which have mechanical power, no closets have been found to communicate directly with any bakehouse, no drain opening has been found to exist in any bakehouse, no water supply is provided for any bakehouse from a cistern which serves any water-closet, no sleeping place on the same level as the bakehouse has been found.

The same procedure has been adopted in the case of bakehouses as in other workshops, with regard to cleanliness, air space and ventilation, and the drainage of wet floors. Notice has been exhibited in each bakehouse specifying the maximum number of persons to be employed therein. Of the 8 underground bakehouses in the district, it is unnecessary to say more than they have been inspected and dealt with in the same manner as all other bakehouses. It has already been stated in Section IV. that they will all be closed on December 31st, 1903.

3. *Homework.*—Upon the receipt of information respecting the addresses of outworkers employed by tradespeople outside the district, the premises have been inspected and registered in the same manner as in the case of Workshops. The necessity has not arisen for any action on account of the existence of dangerous infectious disease. It appears that there are at the present time no employers in the district having outworkers.

No overcrowding of any workshop has been noted during the year.

As a rule the workshops throughout the district have been found to be clean and wholesome; in certain cases (twenty-three in number) however, in which the walls have been found dirty it has been sufficient for a request to be made to the occupier to cause the premises to be cleansed, thus obviating the necessity of any action under the Public Health Act, 1875. Upon a report being made to the Medical Officer of Health of the existence of any workshop without suitable and sufficient sanitary conveniences, the matter has been brought before the Health Committee, and, pursuant to the provisions of the Public Health Acts Amendment Act, 1890, Section 22 (2), the Surveyor of the Council has been requested to make a report in each case.

Under this section sixteen workshops have been reported as being without proper accommodation in the way of sanitary conveniences. Of these, thirteen have been made the subject of legal notices on the report of the

Surveyor, to provide such accommodation. Of these notices four have already been complied with, and several others are in hand. In the case of three premises it was considered that sanitary conveniences were sufficiently near at hand.

It may be of interest to note that the above-mentioned workshops comprise the following:—Dressmaking, 82; Bootmakers, 36; Bakers, 34; Joiners, 21; Plumbers, 19; Milliners, 17; Blacksmiths and Wheelwrights, 14; Decorators, 13; Ironmongers, 12; Cabinet Makers, 11; Tailors, 10; Hairdressers, 9; Laundries, 8; Monumental Masons, 5; Saddlers, 4; Printers, 3; Watchmakers, 2.

Factories.—There are only four places in the district in which mechanical power is used in aid of the manufacturing process. All these are laundries but in three only are more than 40 people employed.

These have been inspected and reported upon by the Surveyor of the Council as regards the provision of adequate means of escape in case of fire. In one instance, in the opinion of the Surveyor these were insufficient and accordingly a notice has been served upon the owners of the laundry to provide better means of exit. In the same place it was found that proper separate accommodation for persons of each sex did not exist, and a notice was issued calling for further sanitary convenience to be provided. In the remaining laundries coming under Section 14 of the Act it was found that the means of exit in case of fire were satisfactory, and that the closet accommodation was sufficient and provided for the proper separation of the sexes.

Shewing the work done by the Inspector under the Factory and Workshop Act, from July 29th to December 31st, 1902:

WORKSHOPS.

Number of Visits.	Number in which sanitary defects were found and reported to Medical Officer of Health.	Number of reports referred to Factory Inspector (unregistered Workshops).	Number of cases in which Magisterial proceedings have been taken.	Number registered during the year.	Total number on register.	Number of visits to houses where outworkers are employed.	Factories and Workshops not provided with proper means of escape in case of fire.
973	15	59	0	300	300	54	1

BAKEHOUSES.

Number of Visits.	Number in which sanitary defects were found.	Number of reports referred to Factory Inspector.	Number of cases in which Magisterial proceedings have been taken.	Number registered during the year.	Total number on register.
124	8	4	0	34	34

Appendix.

TABLE I.
URBAN DISTRICT OF WITHINGTON
Vital Statistics for whole District during 1902, and previous years.

YEAR.	Population estimated to Middle of each Year. District and Workhouse.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE IN THE DISTRICT.		DEATHS AT ALL AGES, TOTAL, IN THE DISTRICT.		DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	Deaths of Non-residents registered in District.	Deaths of Residents registered beyond District.	DEATHS AT ALL AGES NETT BELONGING TO THE DISTRICT.	
		Number.	Rate.*	Number.	Rate per 1,000 Births registered.	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1892.	27,038	540	21.5	66	120	847	31.3	528	507	1	340	13.5
1893.	28,085	548	21.0	82	150	925	32.9	592	576	3	333	12.7
1894.	29,132	542	20.0	49	90	761	26.1	498	473	4	288	10.6
1895.	30,179	577	20.5	69	119	901	29.8	591	566	6	335	11.9
1896.	31,226	602	20.7	67	111	903	28.9	604	585	3	318	10.9
1897.	32,273	658	21.9	63	95	972	30.1	655	628	9	344	11.4
1898.	33,320	593	19.1	82	138	990	29.7	628	603	6	387	12.4
1899.	34,367	626	19.5	66	105	1,074	31.2	734	711	10	363	11.3
1900.	35,414	671	20.3	75	111	1,311	37.0	936	907	22	408	12.3
1901.	36,461	642	18.8	82	127	1,216	33.3	849	820	17	413	12.1
Averages for years 1892-1901.	31,749	599	20.3	70	116	990	31.0	661	637	8	352	11.9
1902.	37,508	734	20.9	72	98	1,145	30.5	733	703	12	412	11.7

* Rates in Columns 4 and 13 calculated per 1,000 of estimated population, exclusive of Workhouse.

NOTE.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district of the division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

Area of District in acres (exclusive of area covered by water) } 5,728.
 Total population at all ages (exclusive of the Workhouse 33,770) }
 Number of inhabited houses " " " " " " } 36,202 } At Census of 1901.
 Average number of persons per house " " " " " " } 7,208 }
 " " " " " " " " " " " " } 4.6 }

Appendix.

TABLE II.
URBAN DISTRICT OF WITHINGTON.

NAMES OF LOCALITIES. YEAR.	1.—THE WHOLE DISTRICT EXCLUSIVE OF THE WORKHOUSE.				2.—WITHINGTON.				3.—DIDSBURY.				4.—CHORLTON-CUM-HARDY.				5.—BURRAGE.			
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1892 ..	25,079	540	340	66	10,732	220	136	29	7,433	152	93	12	5,276	117	68	15	1,638	51	22	9
1893 ..	26,072	548	330	82	11,060	266	127	32	7,639	157	95	23	5,704	127	63	17	1,666	58	29	9
1894 ..	27,065	542	284	49	11,390	193	89	16	7,845	160	90	15	6,132	138	65	10	1,694	51	15	4
1895 ..	28,058	577	329	69	11,720	199	120	28	8,051	176	86	19	6,560	152	71	14	1,722	50	27	7
1896 ..	29,051	602	315	67	12,050	238	137	28	8,260	155	88	15	6,991	142	62	13	1,750	67	28	10
1897 ..	30,044	658	335	63	12,380	236	156	22	8,466	171	86	14	7,420	190	67	16	1,778	61	26	10
1898 ..	31,037	593	387	82	12,712	225	169	32	8,672	143	96	17	7,847	157	88	24	1,806	68	28	9
1899 ..	32,030	626	363	66	13,043	229	164	36	8,878	160	75	8	8,275	188	104	17	1,834	49	20	5
1900 ..	33,023	671	408	75	13,372	264	178	25	9,085	156	103	20	8,704	181	95	22	1,862	70	32	8
1901 ..	34,016	642	413	82	13,702	228	190	40	9,291	168	84	15	9,133	203	107	16	1,890	43	32	11
Averages of Years 1892 to 1901.	29,547	599	350	70	12,216	223	146	28	8,362	159	89	15	7,204	159	79	16	1,764	56	25	82
1902 ..	35,000	734	412	72	14,030	260	176	27	9,493	174	95	14	9,559	237	105	25	1,918	63	36	6

NOTES.—(a) The separate localities adopted for this table are areas of which the populations are obtainable from the census returns, such as wards, parishes or groups or parishes, or registration sub-districts. Block 1 may, if desired, be used for the whole district; and blocks 2, 3, &c., for the several localities. In small districts without recognised divisions of known population this table need not be filled up.

(b) Deaths of residents occurring in public institutions beyond the district are to be included in sub-columns c of this table, and those of non-residents registered in public institutions in the district excluded. (See note on Table 1. as to the meaning of terms "resident" and "non-resident.")

(c) Deaths of residents occurring in public institutions whether within or without the district are to be allotted to the respective localities, according to the addresses of the deceased.

Appendix.

TABLE III.
URBAN DISTRICT OF WITHINGTON.
CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1902.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.				NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.				
	At all Ages.	At Ages—Years.					Withington.	Didsbury.	Chorton-cum-Hardy.	Burnage.	Withington.	Didsbury.	Chorton-cum-Hardy.	Burnage.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.									65 and upwards.
Small-pox ...	1	...	...	...	1	...	...	1	...	...	...	1	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria ...	25	1	7	11	3	3	6	13	1	1	1	2	1		
Membranous croup ...	1	...	...	1	...	...	...	...	1	...	...	...	...
Erysipelas ...	10	...	...	1	2	6	1	2	...	...	...	...	...
Scarlet fever ...	109	1	21	67	13	6	1	38	16	27	4	20	14		
Typhus fever...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever...	6	...	2	2	1	1	...	1	...	...	2	1	...
Relapsing fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever ...	1	...	...	...	1	...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals ...	153	2	30	82	19	18	2	56	24	55	18	28	7	24	15

NOTES.—The localities adopted for this table are the same as those in Tables II. and IV. The name of the isolation hospital, used by the sick of the district—Monsall Fever Hospital in the City of Manchester until December 10th, 1902; Bagaley Sanatorium, Cheshire, since December 10th, 1902.

Appendix.

TABLE IV.
 WITHINGTON URBAN SANITARY DISTRICT.
 CAUSES OF, AND AGES AT, DEATH DURING YEAR 1902.

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.							DEATHS IN LOCALITIES (AT ALL AGES).				DEATHS IN PUBLIC INSTITUTION.
	All ages.	Und'r 1 year	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards	Withington.	Didsbury.	Chorlton-cum-Hardy.	Burnage.	
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..
Measles	17	5	10	2	..	..	..	19	1	5	1	5
Scarlet fever	7	..	2	5	..	..	..	..	1	5	1	..
Whooping cough	1	1	..	..	..	..	..	1	..	..	..	3
Diphtheria and membranous croup	6	1	2	2	1	..	..	2	1	1	2	..
Croup	..	..	..	..	..	..	..	..	..	..	..	..
Fever { Typhus	..	..	..	..	..	..	..	..	..	..	..	..
{ Enteric	1	..	..	..	..	1	..	..	1	..	..	3
{ Other continued	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic influenza	11	..	2	..	..	4	5	6	3	1	1	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea	3	2	1	..	..	..	..	..	1	1	1	4
Enteritis	1	..	..	..	..	1	..	..	1	..	..	1
Puerperal fever	..	..	..	..	..	..	..	..	..	..	..	1
Erysipelas	1	..	..	..	..	..	1	..	..	1	..	2
Other septic diseases	7	1	..	..	..	3	3	4	2	1	..	2
Phthisis	27	1	..	..	5	20	1	14	3	7	3	133
Other tubercular diseases	11	2	5	1	..	3	..	3	1	7	..	12
Cancer, malignant disease	32	..	..	..	1	15	16	20	6	2	4	46
Bronchitis	30	9	5	..	..	5	11	9	7	14	..	61
Pneumonia	35	2	4	1	4	19	5	14	10	10	1	110
Pleurisy	2	..	1	..	..	..	1	..	..	2	..	3
Other diseases of the Respiratory organs	6	1	..	1	..	2	2	1	2	2	1	1
Alcoholism Cirrhosis of liver	8	..	..	..	..	8	..	6	1	1	..	4
Venereal diseases	1	1	..	..	..	..	..	..	..	..	1	..
Premature birth	5	5	..	..	..	..	..	2	1	2	..	2
Diseases and accidents of parturition	..	..	..	..	..	..	..	..	..	..	..	1
Heart diseases	36	2	..	..	2	16	16	17	11	6	2	47
Accidents	6	..	..	1	1	1	3	2	1	1	2	7
Suicides	7	..	..	..	..	7	..	3	3	1	..	1
Injuries	..	..	..	..	..	..	..	..	..	..	..	..
Chronic lead poisoning	..	..	..	..	..	..	..	..	..	..	..	..
All other causes	151	39	6	2	3	39	62	62	38	35	16	284
All causes...	412	72	38	15	17	144	126	176	95	105	36	733

STATE OF NEW YORK

No.	Name	Age	Sex	Color	Height
1	John Smith	25	M	W	5-8
2	Mary Jones	30	F	W	5-4
3	James Brown	40	M	B	6-0
4	Elizabeth White	20	F	W	5-6
5	Robert Green	35	M	B	5-10
6	Sarah Black	28	F	B	5-5
7	William Grey	45	M	B	6-2
8	Jane Pink	18	F	W	5-3
9	Thomas Blue	50	M	B	6-4
10	Anna Yellow	22	F	W	5-7

