

**[Report 1900] / Medical Officer of Health, Worcester City.**

**Contributors**

Worcester (England). City Council.

**Publication/Creation**

1900

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TWENTY-SEVENTH

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

TO THE

URBAN SANITARY AUTHORITY

OF THE

CITY OF WORCESTER.

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**YEAR 1900.**

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WORCESTER :

PRINTED BY DEIGHTON AND CO., 53, HIGH STREET.



**The Twenty-seventh Annual Report of the  
Medical Officer of Health, being that for  
the Year 1900.**

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*TO THE URBAN SANITARY AUTHORITY OF  
THE CITY OF WORCESTER.*

Gentlemen,

I beg to present to you my Report for the year 1900, giving an account of the conditions influencing the health of the Citizens, and the statistics of mortality from various causes ; also the means that have been taken to modify those conditions which are inimical to good health and to check the spread of those diseases which are infectious in their nature.

The epidemic of Influenza which began in November, 1899, continued through the first quarter of 1900, and was the direct cause of 38 deaths. An epidemic of Measles commenced in the South part of the City in the middle of September, and gradually spread through its whole length and breadth. This disease caused 19 deaths, and would probably have caused many more had not the autumn and early winter been so mild. The remaining infectious diseases have been present in moderate amount only during the year ; especially is this true of Scarlet and Typhoid Fever.

The population of the City in the middle of 1900 is estimated at 45,280.

The Birth-rate is the same as that for the year 1899, 27·5 per 1000 persons living. The rate for these years is the lowest recorded, and is 1·6 less than the average for the past 10 years (Table VI.) The Birth-rate for England and Wales is 28·9, and is the lowest on record, being 1·2 per 1000 below the average of the ten years 1890-99.

The Death-rate is 19·3 per 1000 living, which is ·3 less than the average of the past 10 years (Table VI.) The Death-rate for England and Wales is 18·3, which is ·1 below the average rate for the ten years 1890-99.

The Infantile Death-rate is 140 per 1000 births registered during the same period. Only once, in 1898, has a lesser rate been recorded (Table VI.) This year's rate is 21 per 1000 less than the average rate of the past ten years. The rate for England and Wales was 154, which was ·1 per 1000 above the mean proportion for the ten years 1890-99.

The Zymotic Death-rate was 1·3 per 1000 living, and is ·6 less than the average rate for the past ten years (Table V.) The rate for England and Wales was 2·0 per 1000 of the population.

The death-rates of each of the Zymotic diseases is given in the following Table, and, with the death-rate from all causes, is compared with those of England and Wales with those of the 33 great towns, and with the 67 large towns, among which Worcester is included.

The Death-rate from Cancer was .....	·92.
„ „ „ Phthisis was.....	1.03.
„ „ „ all forms of Tubercule was	1.74.

(Taken from Registrar General's Report).

	All causes.	Principal Zymotic Diseases (columns 3—9).	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Deaths under 1 year per 1000 Births.
Columns .. ..	1	2	3	4	5	6	7	8	9	10
England and Wales ...	18.3	2.00	0.00	0.39	0.12	0.29	0.34	0.17	0.69	1.54
33 great towns .....	19.5	2.50	0.00	0.43	0.13	0.35	0.45	0.20	.94	1.72
67 other large towns ...	18.1	2.25	0.00	0.51	0.12	0.29	0.34	0.19	.81	1.66
England and Wales, less the 100 towns ...	17.5	1.57	0.00	0.32	0.10	0.24	0.27	0.16	0.48	1.38
<b>Worcester .....</b>	<b>19.3</b>	<b>1.3</b>	<b>0.00</b>	<b>0.41</b>	<b>0.06</b>	<b>0.28</b>	<b>0.08</b>	<b>0.02</b>	<b>0.41</b>	<b>1.40</b>

It will be seen that compared with the "67 other large towns," the Death-rate of Worcester is 1·2 per 1000 higher ; but that the Zymotic death-rate and Infantile death-rate are both considerably lower. The death-rates from the various Zymotic diseases in Worcester also compare favourably with those of the "large towns," but those due to deaths from Diphtheria and Measles are only slightly lower.

As in former years in estimating the death-rate, there have been included the deaths of 15 inmates of Powick Asylum, who went there from the City ; and the deaths of persons dying in the General Infirmary who came from outside the City, 36 in number, have been excluded.

These facts and the differences between the crude death-rate (column 8) and the corrected death-rate (column 13) are set out in the new Table of the Local Government Board being Table VI. of this Report.

The City Coroner held Inquests on 59 persons during the year, which is 6·5 per cent. of the total deaths (896) registered in the City. Of these 59 inquests, 15 were on infants under 1 year of age, and 10 on children between 1 and 7 years. Two of the infants were suffocated while in bed with their parents. The verdicts of the Juries were, death from natural causes 30 ; from Accidents 22 ; Suicide while insane 3 ; disease aggravated by neglect by others 1 ; from other causes 1 ; from causes unascertainable 2.

It was ordered by your Authority in 1891, that the Medical Officer of Health should prepare statistics each year for every parish in the City, 16 in number, respecting

the birth-rate, death-rate, and infantile death-rate. This has been done and the results embodied in each Annual Report.

Recently, proposals have been made for altering several of the Parish boundaries, which when done will make comparison with former years impossible.

The Local Government Board have issued forms of new Tables for this year's Report, and one of these asks for statistics of *localities*, such as wards or any large natural sub-divisions of a district.

I would now propose to your Authority that instead of giving the statistics of each parish as heretofore, the statistics of the wards should be given instead. This arrangement will allow comparison between fairly equal groups of population, whereas the present arrangement has groups of most unequal size, varying from 130 to 12,000; 6 of the Parishes have less than 1,000 in population, and 4 of them have from 5,000 to 12,000. Whatever arrangement is adopted, the localities (wards or groups of parishes) must be such that the population can be accurately known. At the Census now near at hand, the population of each parish and ward is separately ascertained.

In the following Table is given the average death-rate and infantile death-rate of the 15 parishes for the 10 years 1891-1900. The parishes are arranged in the order of the general death-rate, and the populations are estimated for the middle of the period in question.

Parish.	Population estimated for 1896.	Average rate for 10 years.	
		Death-rate.	Infantile Death-rate.
South Hallow.....	486	14'05	78
St. Nicholas .....	1800	14'6	108
St. Swithin .....	558	15'5	152
South Claines.....	12000	16'6	133
St. John .....	4700	16'7	125
St. Peter .....	8200	17'4	168
St. Martin .....	4665	21'1	150
St. Clement .....	2100	22'3	188
St. Michael.....	444	22'3	180
Whistones .....	2860	24'1	189
Blockhouse .....	2200	24'1	196
All Saints .....	1800	25'6	233
St. Helen .....	945	26'9	233
St. Andrew.....	1170	28'0	221
St. Alban's.....	153	33'2	241

The parish of the College Precincts is not included here, as in most years no deaths have occurred in it.

The deaths of residents of each parish that have occurred in the General Infirmary or in the Workhouse have been allocated to that parish.

The general death-rate of Whistones parish is no doubt unduly raised by the deaths of the residents in the Alms-houses situated in that parish.

A general survey of these averages confirm what might have been expected, *a priori*, by anyone knowing the parishes of the City. The first 7 parishes with a total population of about 32,500 have death-rates varying from 14 to 21 per 1,000 of their population, and are inhabited by the well-to-do citizens almost entirely. The infantile death-rates in these parishes are also fairly good with the

exception of St. Peter's. But in this parish the infantile death-rate for the last 5 years (158) is 20 per 1,000 births better than that (178) for the previous 5 years,

The other side of the picture is shewn in the remaining 8 parishes with a total population of about 11,700. These have death-rates varying from 22·0 to 28·0 per 1000, and Infantile death-rates from 180 to 233 per 1000 children born.\* These parishes contain nearly all the poor population of the City, and include all the old parts. The people living in them are those who for some reason fall behind the rest in the struggle for existence; and their poverty engenders habits that tend to shorten their lives, and that lessens the chance of their children surviving the age of infancy.

The social problems that surround the very poor are most difficult and intricate. The power of a Sanitary Authority to alleviate the miseries of poverty is limited in many ways. To provide pure water, good air and decent dwellings, with good sanitary surroundings is doing what lies at their hands. To endeavour to keep the houses clean and their surroundings sanitary is the constant work of your Inspectors, and their experience shews that the most watchful supervision is necessary.

There is a very small amount of overcrowding in Worcester as compared with quickly growing towns, and the cases that do occur are mostly in families that live in

\* NOTE.—The parish of St. Alban's has been omitted, as the population is so small as to make the rates very unequal. For instance, in 1895 there were 9 deaths, giving a death-rate of 58·8, and in 1896 one death, giving a rate of 6·5.

the same house for many years and outgrown the accommodation.

But the chief causes of early death and of a large infantile death-rate are to be sought in the habits of the population rather than in their sanitary surroundings. The habits of uncleanness, improvidence and drunkenness have much more to answer for than those surroundings which a Sanitary Authority can do a good deal to control.

There is another factor in a City such as ours, that is a City which cannot support the natural increase of its population, that raises the general death-rate. It is the undue proportion of elderly people among its population as compared with the total population of the Country. Persons migrate from Worcester to more quickly growing towns year by year, and this in young adult life, when the death-rate is very low; the population remaining has an undue proportion of the young and old, in both of which classes the death-rate is high. To what extent this factor raises the death-rate of the City, it will be possible to ascertain when the figures of the next Census are made public.

#### THE INFECTIOUS DISEASES (NOTIFICATION) ACT AND THE PRECAUTIONS TAKEN TO CHECK THE SPREAD OF THE INFECTIOUS DISEASES.

The Table which follows shews that there has been a very moderate amount of the diseases that come under this Act. During the eleven years that the Act has been in force, in only two of them, in 1891 and 1895, has the total of the diseases been fewer than in the year 1900. In only one year, 1891, has there been less Scarlet Fever, and

the cases of Typhoid Fever are considerably fewer in number than in any previous year.

The diseases that are scheduled under this Act have been certified during the year as follows :—

Month.	Plague.	Smallpox.	Scarlet Fever.	Diphtheria.	Membranous Croup	Typhoid Fever.	Continued Fever.	Puerperal Fever.	Erysipelas.	Total.
January ...	...	...	13	7	...	3	...	1	3	17
February ...	...	...	17	1	...	...	...	...	4	22
March .....	...	...	20	9	...	1	...	2	4	36
April .....	...	...	10	5	...	1	...	...	3	19
May .....	...	...	4	4	...	...	...	...	4	12
June .....	...	...	7	2	...	2	...	1	5	17
July .....	...	...	7	11	...	...	1	...	2	21
August .....	...	...	5	10	...	...	...	1	3	19
September .	...	...	2	11	...	...	...	...	1	14
October ...	...	...	4	14	...	1	...	1	4	24
November .	...	...	2	14	...	1	...	1	3	21
December .	...	...	3	3	...	2	...	1	3	12
<b>Total 1900</b>	...	...	<b>94</b>	<b>91</b>	...	<b>11</b>	<b>1</b>	<b>8</b>	<b>39</b>	<b>244</b>
„ 1899	...	...	290	135	...	24	1	5	75	530
„ 1898	...	...	317	185	...	16	2	4	51	575
„ 1897	...	...	151	167	1	20	1	7	51	398
„ 1896	...	4	295	317	3	18	...	5	48	690
„ 1895	...	1	141	26	...	17	1	3	27	216
„ 1894	...	63	127	34	...	46	2	6	59	337
„ 1893	...	13	273	39	...	65	1	9	94	494
„ 1892	...	1	236	27	...	67	1	6	98	436
„ 1891	...	...	40	10	...	73	...	6	55	184
„ 1890	...	...	131	10	...	77	...	7	79	304

As in previous years, I have made visits to the houses in which cases of Diphtheria, Typhoid Fever, and Puerperal Fever have been certified, in order to endeavour to trace the source of the infection.

**Smallpox.**—No case of this disease has occurred in the City during the year.

The "Conscience Clause" of the Vaccination Act of 1898 has been made use of only for 10 children during the year 1900. It is a matter for congratulation that the prevention of a most serious infectious disease is not hindered in this City by this unique piece of legislation.

**Scarlet Fever.**—Only 94 cases of this disease were certified during the year. Of these 60 cases, or nearly two-thirds, occurred in the first four months of the year. Since the end of April the disease has been quiescent.

The disease was distributed throughout the year as follows :—

	Cases certified.	Houses affected.	Patients removed for Isolation.	At Hospital.	DIED. At Home.
1st Quarter ...	50	40	37	—	1
2nd Quarter ...	21	19	18	2	—
3rd Quarter ...	14	12	12	—	—
4th Quarter ...	9	9	7	—	—
	94	80	74	2	1

Two cases occurred among the patients in the General Infirmary, and both were removed to the Isolation Hospital. Two cases contracted the disease away from Worcester, one, a child, was taken ill the day after arriving in Worcester on a visit ; and the other, a man, was found to be desquamating on his return home from a neighbouring town.

It will be noted that 76 per cent. of the cases were removed to the Isolation Hospital.

The following Table gives the Age and School distribution of the cases.

	Quarters—1st.		2nd.		3rd.		4th.		Total.
Total Cases .....	50	...	21	...	14	...	9	...	94
Secondary Cases	11	...	2	...	1	...	1	...	15
Primary Cases ...	39	...	19	...	13	...	8	...	79

Of the Primary Cases there were :—

Adults .....	4	...	1	...	1	...	2	...	8
Imported Cases ..	—	...	1	...	1	...	—	...	2
In Infirmary } Wards .....	1	...	—	...	1	...	—	...	2
Children under } School Age }	10	...	2	...	1	...	1	...	14
Children attend- } ing Schools...	24	...	15	...	9	...	5	...	53

The 53 children attended the following Schools :—

St. Paul's Infant Department .....	8
St. Peter's „ „ .....	6
St. George's „ „ .....	4
St. Mary's School .....	4
Two Schools had 3 each .....	6
Six „ „ 2 „ .....	12
Nine „ „ 1 „ .....	9
Four private Schools had 1 each.....	4

Total..... 53

The list shews that only two schools had more than 4 cases throughout the year. It is noteworthy that 33 out of

the total of 53 children attended the Infant departments in the various parishes.

To illustrate the difficulties of tracing the source of infection and in checking the spread of disease, the following facts are given :—Mrs. P., living in a court in Dolday, was certified as having Scarlet Fever. At this time she was “peeling” vigorously, and she said she had had a sore throat *two weeks previously* but never any rash. She was a hawker, and had been carrying on her business. This woman and two small children were removed to the Hospital. Neither of the children caught the infection. There is no knowing how many persons had been exposed to infection through this woman, who was ignorant of the nature of her sore throat. It has long been known that occasionally Scarlet Fever does exist without any rash, but luckily the cases are rare.

**Diphtheria.**—It is satisfactory to note the marked decrease in the number of cases of this disease when compared with the four preceding years. The type of the disease during most of the year was mild, but at the end of September came a series of severe cases. From January 1st to September 24th, 59 cases were certified and 3 died; from September 25th to October 31st, 18 cases were certified and 7 died; from November 1st to December 31st, 17 cases were certified and 1 died.

In my Report for the 4th Quarter of 1900, the circumstances contributing to the large number of deaths in October were mentioned; but it is singular that out of 18 consecutive cases, in no less than 8 did the disease attack the larynx, and 6 of these 8 required the operation of tracheotomy.

The following Table shews the distribution of the disease through the year.

	Cases Certified.	Houses affected.	Cases removed to Hospital.	DIED. At Hospital.	At Home.
1st Quarter ...	17 ...	17 ...	14 ...	1 ...	3
2nd Quarter ...	11 ...	11 ...	6 ...	1 ...	—
3rd Quarter ...	32 ...	29 ...	25 ...	— ...	—
4th Quarter ...	31 ...	26 ...	8 ...	5 ...	3
	91 ...	83 ...	53 ...	7* ...	6

Four other patients were Tracheotomised and recovered.

The following Table gives the age and School distribution of the cases.

	Quarters—Ist.	2nd.	3rd.	4th.	Total.
Total Cases .....	17 ...	11 ...	32 ...	31 ...	91
Secondary Cases	— ...	— ...	3 ...	5 ...	8
Primary Cases...	17 ...	11 ...	29 ...	26 ...	83

Of the Primary Cases there were :—

Adults.....	4 ...	2 ...	4 ...	5 ...	15
Children under } School Age	3 ...	— ...	5 ...	9 ...	17
Children attend- } ing Schools...	10 ...	9 ...	20 ...	12 ...	51
Number of } Schools affected	8 ...	6 ...	15 ...	7 ...	—

\* Six of these patients died after having Tracheotomy performed. Two from measles coming out during convalescence; three died within 24 hours of the operation from the exhaustion due to the disease, the patients having been ill many days before medical aid was sought; the sixth patient lived 3 days after the operation and had been ill 5 days when it was performed.

The 51 attended the following Schools :—

S. George's Boys	...	1	...	—	...	1	...	2	...	4
„ „ Girls	...	—	...	2	...	1	...	1	...	4
„ „ Infants	.	1	...	2	...	5	...	4	...	12
S. Martin's Boys	...	1	...	—	...	—	...	2	...	3
S. Mary's.....		2	...	—	...	—	...	1	...	3
										<hr/> 26
Six School Departments had 2 cases each	.....									12
Ten „ „ „ 1 „	.....									10
Three private Schools „ 1 „	.....									3
										<hr/> Total..... 51

Here it will be seen that the Schools of St. George's parish were the only schools in the City that had any amount of Diphtheria among the scholars during the year.

The following Table shows the ages of the persons attacked, and the deaths occurring in each age period, for males and females separately, and for both together.

	Under 1 year.	1 to 2 years.	2 to 3 years.	3 to 4 years.	4 to 5 years.	Total under 5 years.	5 to 10 years.	10 to 15 years.	15 to 20 years.	Over 20 years.	Total.
Males ...	1	...	3	3	2	9	24	8	...	4	45
Deaths ...	1	...	...	2	...	3	1	...	...	...	4
Females...	1	3	1	5	1	11	13	13	6	5	48
Deaths ...	1	1	1	1	...	4	4	1	...	...	9
Total .....	2	3	4	8	3	20	37	21	6	9	93
Deaths ...	2	1	1	3	...	7	5	1	...	...	13

This Table and the following includes two cases which were not certified: in one, a baby, 9 months old, the cause was discovered by a post mortem examination; the other, a girl, aged 6 years, was seen by a medical man for the first time when dying from paralysis of the heart, due to the disease which had been unsuspected by the parents.

The death-rate per centum of those attacked was as follows :

Persons.			Males.			Females.		
Total.	Under 5 years.	Over 5 years.	Total.	Under 5 years.	Over 5 years.	Total.	Under 5 years.	Over 5 years.
13·9	35·0	8·2	8·8	33·3	2·7	18·7	36·3	13·7

This is the fifth year since this disease became epidemic in the City. The following Table gives the total number of cases and deaths that have occurred during these 5 years arranged under age periods :

	Under 1 year.	1 to 2 years.	2 to 3 years.	3 to 4 years.	4 to 5 years.	Total under 5 years.	5 to 10 years.	10 to 15 years.	15 to 20 years.	Over 20 years.	Total.
Males.....	4	16	23	38	33	114	143	57	21	25	360
Deaths ...	4	7	5	12	6	34	19	...	...	...	53
Females...	4	20	21	47	44	136	199	101	35	76	547
Deaths ...	2	11	5	13	11	42	28	7	...	2	79
Total .....	8	36	44	85	67	250	342	158	56	101	907
Deaths ...	6	18	10	25	17	76	47	7	...	2	132

The first point that strikes attention is the much larger proportion of females than males making up the total number. If the total be divided up into three age periods, (1) below school age under 3 years, (2) during school years 3 to 15 years, and (3) over 15 years, the difference is still more marked.

	Under 3 years.		3—15 years.		Over 15 years.		Total.
Males .....	43	...	271	...	46	...	360
Females .....	45	...	391	...	111	...	547

Here it is seen that for the years before school life the incidence of disease on the sexes is equal ; during the age of school life from 3 to 15, out of every 100 attacked 41 were boys, and 59 were girls ; after school years out of every 100, 29 were males and 71 were females. In adult life this difference is mostly no doubt accounted for by the mothers and elder sisters helping to nurse the sick children and so contracting the disease. And during school life this factor will account for some of the difference in the incidence of the disease, but more cause for the difference is to be found in the behaviour towards one another of the girls, who tend to aggregate in groups, to walk with arms round one another's neck, and in other ways come into close connection one with the other, so the more readily and easily conveying or receiving infection. This difference in the incidence of the disease on the sexes is not peculiar to Worcester, but obtains throughout the country.

The following Table gives the percentage death-rates for each of the 5 years 1896—1900, for age-periods and for males and females separately ; and the same rates for the total cases for the 5 years :

	Persons.			Males.			Females.		
	Total.	Under 5 years.	Over 5 years.	Total.	Under 5 years.	Over 5 years.	Total.	Under 5 years.	Over 5 years.
1896 ...	15.1	33.3	7.2	16.4	28.5	10.0	14.3	37.0	5.7
1897 ...	19.1	39.3	12.09	16.4	35.0	8.5	21.0	43.4	14.2
1898 ...	15.6	31.2	10.2	18.4	45.4	7.4	13.7	19.2	12.0
1899 ...	7.4	15.1	4.9	10.0	18.2	6.9	6.3	13.3	4.1
1900 ...	13.9	35.0	8.2	8.8	33.3	2.7	18.7	36.3	13.7
For the 5 years	14.5	30.4	8.5	14.7	29.8	7.7	14.4	30.8	9.0

This Table shews that during 1899 the disease proved less fatal than in the other years by nearly 50 per cent. ; and that of the other 4 years, 1897 shews higher death-rates than the remainder. But from small numbers such

as these Tables consist of, it is not safe to draw conclusions except of a general character. Thus, it is evident that the probability of death in persons attacked under 5 years of age is more than 3 times as great as in persons over that age; but all acute illnesses are much more fatal in the very young, and diphtheria is unfortunately frequently insidious in its onset, and offering no very obvious signs in the early stages when treatment is most successful.

**Typhoid Fever.**—During the year only 11 cases of this disease were certified in the City, and two of these were certified from the General Infirmary, where the patients were sent from a neighbouring town. This leaves 9 cases which occurred in the City during the whole year. The Table on page 11 shews this to be the smallest number for the past 11 years. Only one death was registered as due to the disease.

Of these 9 cases, 4 were [nursed in the wards of the General Infirmary, and all recovered.

In no instance did a secondary case occur in any house. The patients lived in different parts of the City, in 9 different streets. The sanitary surroundings of the houses where the patients lived could not be held responsible for the causation of the disease.

**Continued Fever.**—One case only was certified, in the month of July. The patient, a boy of 5, was never so ill as to require to be kept in bed, and was, so the mother informed me, quite well in five days.

**Puerperal Fever.**—Eight patients were certified as suffering from this disease, and no less than five of them died. In five cases a midwife was in attendance at the

time of the confinement ; three of these patients died and two recovered. These midwives were all sent the usual printed form.

The Legislature has not yet passed any Bill for regulating and controlling the work of Midwives, nor does the present condition of affairs seem favourable for the passing of any such private bills.

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Of the Zymotic diseases that are not scheduled in the Notification Act, two have been largely epidemic during the year, namely Influenza and Measles.

**Epidemic Influenza** was assigned as the cause of death to 38 persons during the year. The epidemic which caused these deaths began in November, 1899, and 28 of the total deaths occurred during the first quarter of 1900, and 9 more during the second quarter. This is the largest number of deaths recorded from this disease since 1892, in which year 47 deaths were registered as caused by this protean malady.

**Measles.**—This disease began in the South part of the City during the month of September and gradually spread through the whole of it, mostly affecting the Infant Schools. The only school which was closed by order of the Health Committee was the Red Hill Infant School, which was severely affected in the second week of October, and was closed on October 23rd for three weeks. The teachers of several of the schools sent me from week to week a list of the children absent from this cause, and at the end of the school years certificates were given enabling the managers of the

schools to obtain a special money grant under Section 101\* of the Elementary School Code.

Owing to the mildness of the autumn and early winter, the deaths from the disease were fewer than would have been the case under worse climatic conditions, as lung affections are so frequently the immediate cause of death in this disease. At the end of the year the epidemic still continued in the extreme West, East, and North ends of the City.

**Plague.**—In consequence of the appearance of plague in Glasgow, and in view of the possible occurrence of cases of the disease in England and Wales, the Local Government Board issued an order dated September 19th, 1900, to all Sanitary Authorities, directing that plague shall be one of the diseases to which the Infectious Diseases (Notification) Act applies. The order required that a circular letter should be sent to all the legally-qualified Medical Practitioners in the district informing them of their duties under this regulation. This was immediately done in Worcester. It is also ordered that every Medical Officer of Health shall forthwith report to the Local Government Board any case of plague which may be notified to him or which may otherwise come to his knowledge.

For the past two and a half centuries this country has not been visited by this dread epidemic disease, but the outbreak at Glasgow should be taken as a warning that the country must be on the alert lest it may be invaded once more. As an inland town, Worcester is far less liable to receive the infection than are the great ports

around our coast, and at all these a strict guard is kept by the Sanitary Authorities lest the disease should obtain a footing. Since 1896 isolated cases have occurred in ships lying in the London Docks, but no spread of the disease has taken place. In its severer form the plague is a very deadly disease, and not difficult to recognise when an epidemic is in progress and medical men are on the look out for it. But when an isolated case of the minor or ambulatory form occurs it is more than possible that it may be overlooked, especially as medical men in this country have, with very few exceptions, never seen a case of the disease. The science of bacteriology enables us to diagnose cases which would otherwise be of uncertain nature ; so that by strict isolation and the prompt examination of the blood and the contents of a suspicious bubo (when such exists) the true nature of the disease may be discovered.

There is yet a very great deal to be learnt respecting the nature, the history, and mode of dissemination of the plague. It would seem that rats spread the disease in some way, but the exact method has yet to be learned. Many investigators are studying the problems in various parts of the world, and their experiences will increase our knowledge of the disease and of the best means for resisting it.

At no period of the year 1900 was it necessary to close any of the Elementary Schools on account of either scarlet fever or diphtheria. The Infant School of St. George's Parish was shut for a week's holiday on November 2nd,

and was, on my advice, thoroughly cleansed, there having been occasional cases of diphtheria among the children.

By the order of the Health Committee a man was prosecuted for travelling by rail to his home from Worcester while suffering from diphtheria. The magistrates inflicted a fine of £1 and costs. The patient, having been warned by the medical man whom he consulted of his infectious condition, went home by train to a neighbouring town the same evening, before any knowledge of the circumstances could come to the officials of your Authority.

### THE ISOLATION HOSPITAL.

The following Table shows the number of admissions into the Isolation Hospital for the year 1900 and for the 10 years preceding :

Year.	Smallpox.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Measles.	Total.
1890	...	97	...	22	...	119
1891	...	24	...	20	1	45
1892	1	107	4	9	1	122
1893	12	143	...	8	1	164
*1894	8	45	7	11	1	72
1895	...	79	6	5	...	90
1896	...	53	137	1	...	191
1897	...	82	70	1	...	153
1898	...	214	73	...	...	287
1899	...	228	73	...	...	301
<b>1900</b>	...	<b>79</b>	<b>58</b>	...	<b>1</b>	<b>138</b>

\*In this year a separate Smallpox Hospital was established.

Table shewing the number of patients who were admitted, discharged, and died during each month of 1900, not including one patient who had measles :—

	Scarlet Fever.			Diphtheria.		
	Admitted.	Discharged.	Died.	Admitted.	Discharged.	Died.
January .....	9	13	...	6	4	1
February .....	16	12	...	1	1	...
March .....	15	10	...	5	2	...
April.....	8	17	2	5	7	...
May .....	4	14	...	1	4	...
June .....	7	7	...	1	...	...
July .....	7	4	...	8	2	...
August .....	3	8	...	9	10	...
September ...	2	4	...	7	6	...
October .....	4	2	...	4	7	...
November ...	1	6	...	9	6	...
December.....	3	2	...	2	7	...
Total.....	79	99	2	58	56	1

The following is a Table shewing the number of admissions and deaths under various age-groups :—

	Under 5 years.		5 to 10 years.		10 to 15 years.		15 to 20 years.		Over 20 years.	
	Admissions	Deaths	Admissions	Deaths	Admissions	Deaths	Admissions	Deaths	Admissions	Deaths
Scarlet Fever .....	24	1	37	1	8	...	5	...	5	...
Diphtheria .....	8	...	26	1	14	...	6	...	4	...

	Scarlet Fever.	Diphtheria.
In Hospital, January 1st, 1900 .....	25	... 1
Admitted during the year .....	79	... 58
	104	... 59
Discharged during year.....	99	... 56
Died during year .....	2	... 1
	101	57
Remaining in December 31st, 1900	3	... 2

The weekly average of patients has been given in the Quarterly Reports and has varied from 34 for the week ending March 31st, to 6 for the last week in the year. At no time during the year has there been any pressure on the accommodation.

During the year 3 deaths occurred, 2 from scarlet fever, each on the fourth day after admission, and 1 from diphtheria, within an hour of admission.

Of the total number of 138 patients, 6 were admitted from outside the City, namely, 1 case of scarlet fever from Malvern into a private ward, and 1 case of diphtheria; 2 cases of scarlet fever from Broadwas; and 1 case of scarlet fever and 1 of diphtheria from the Upton-upon-Severn District.

All the patients admitted were under my care, and I paid 224 visits to the Hospital during the year.

The steam disinfecter has worked well during the year, and has been used on 46 separate days, and 2,120 articles have been passed through it.

The drainage system, which was fully described in my last Annual Report, has worked satisfactorily during the year. On a few occasions the pipes leading into the

bacterial filters have been choked, and the parts nearest these pipes have been clogged, but the City Engineer has had them cleared with little trouble. These interruptions to the working would not have occurred had Mr. Caink's complete scheme been adopted, but the intercepting tank which he proposed to put in between the main sewer and the original settling tanks was omitted on account of the cost, which was £75. The system will always be imperfect until this is provided. It is to be hoped that this omission will be supplied in the ensuing year, so that no nuisance may be possible at the City Sanatorium.

During the year the staff of Nurses was reduced, as the patients decreased in number ; and the Matron undertook the management of the Diphtheria wards.

It is with pleasure that I can again say how ably Mrs. Bowen has performed her duties, and to her influence the smooth working of the Hospital is mainly due. The City Council recognised her good work by granting her an honorarium in addition to her salary.

The following so-called Return Cases of Scarlet Fever occurred during the year. The cases are tabulated as in last year's Report, where the question was fully discussed.

Number in Hospital Book.	Age	Admitted to Hospital.	Discharged from Hospital.	Number of days from rash to date of discharge.	Number of days from discharge of first to admission of second Patient
525	10	Nov. 14, 1899	Jan. 15, 1900	64	
Return 14	7½	Jan. 31, 1900	...	...	16
547	1½	Dec. 22, 1899	Feb. 20, 1900	62	
Return 39	5½	Mar. 14, 1900	...	...	16
528	5½	Nov. 19, 1899	Jan. 20, 1900	74	
Return 18	3	Feb. 5, 1900	...	...	16
69	5	May 21, 1900	July 21, 1900	62	
Return 89	3	July 24, 1900	...	...	3
101	7	Aug. 17, 1900	Oct. 11, 1900	58	
Return 128	2	Nov. 9, 1900	...	...	28

In these five instances, out of the 99 cases discharged from the Scarlet Fever ward during the year, another child became infected in the same household at the interval above stated. It will be noted that the first three cases occurred in the winter months when the wards were nearly full, 27 and 28 beds out of the 31 contained in the three wards

being occupied. The last case (No. 128) was not in my opinion a case of Scarlet Fever at all, and was discharged at the end of 29 days, never having desquamated.

In one instance a diphtheria case occurred in a house 32 days after a child had been sent home from the Hospital, and who had been found to be free from the bacillus as shewn by bacteriological examination. It is well known that the bacillus of diphtheria may lurk in the throat of a person for many weeks and cause no illness nor symptoms of any kind; but this is the first time that a second case has occurred in a house after the return of a patient from the Hospital out of nearly 400 patients discharged during the last five years.

The Metropolitan Asylums Board that controls the Isolation Hospitals of London appointed in October, 1898, Professor W. J. R. Simpson to investigate these "return cases" of Scarlet Fever and Diphtheria, and he recently reported to them the results of his enquiries. There are several recommendations made which could be carried out at our Isolation Hospital. One of the most important is the proposal to remove the convalescent patients, who are not suffering from any ear or nose discharges, into a separate ward or building during the last two weeks of their stay in Hospital. The reason for doing this is that the strong probability exists that the patient during convalescence, say at the end of six weeks, becomes reinfected by the other patients who are in the acute stage, and takes this reinfection to their home in about 3 per cent. of the cases. Your Hospital is well adapted for the carrying out of this measure, and the only drawback is the extra expense

that would be involved in nursing the patients and in heating and lighting the convalescent ward.

It has been my constant endeavour to keep down the working expenses of the Hospital so far as is consistent with the adequate treatment of the patients, who it must be remembered are isolated for the benefit of the rest of the community. If your Authority approves of this suggestion it shall be carried out with as little cost as possible.

**The Water Supply.**—The proposed increase of the filtering area to which allusion was made in my last Annual Report, has been ordered, and the work is now in hand. The new filter bed will be 1446 square yards in area, and will enable the manager to filter the water more slowly and therefore more efficiently, especially in respect to the removal of the micro-organisms.

During the past two years the Water and Sewerage Committee has had weekly bacteriological examinations made of the water of the River and of the pure water tank. This shews the percentage improvement due to the subsidation and filtration; but though this is very interesting, I venture to suggest that more practical good would result from bacteriological examinations into the working of the individual filters. If the water from two filters and the pure water tank were examined each week, a check would be placed on the working of the filters. This is really the important point, that each filter does its work well, for one filter allowing a large number of organisms to pass through would affect injuriously the whole volume of water in the pure water tank, where the water from all the filters passes before being distributed.

In the Quarterly Reports of the City Analyst for the year, it will be observed that on three occasions it is mentioned that the number of micro-organisms found in the filtered water was largely in excess of what is held to be a standard, namely, 100 per cubic centimetre. That the filtration can bring the micro-organisms well within this limit is shown in the Analyst's Report for the 4th Quarter of 1900, where it is said that "No. 3 filter gave the lowest number of micro-organisms, namely, 61 per cubic centimetre."

It is to be hoped that the increased area of the filtration beds will result in permanent improvement in this respect.

**Bakehouses.**—There is to be noted a gradual improvement in the average condition of the bakehouses in the City. The competition of the newer, larger, and more hygienic bakehouses is crowding out the old, small, and unwholesome ones. Although supervision of the places in which bread is baked has long been legislated for, the distribution of it after baking is under no control, and the dust of the Streets may cover the loaf when received, whatever care may be taken in the bakehouse.

**The Refuse of the City** is being disposed of as in recent years. A great improvement of the low-lying parts of Pitchcroft is being effected, with a good deal of disagreeable accompaniments both to the eyes and noses of those in the neighbourhood.

In my last year's Report it was mentioned that in January, 1900, a second special Report dealing with this matter was asked for by the Local Government Board. At that time a very large area, nearly half an acre, was being

dealt with at one time, and one may say that the larger the area the greater the smell. The detail management of the tip must be a somewhat difficult matter, although presumably the material brought week by week is almost identical, but some of the cartloads deposited there ought never to have been received, namely, the trade refuse of shops. Rotting fruit and vegetables ought never to be taken to the tip, and it cannot be a great difficulty to have special drums to take such loads elsewhere. More attention to details of this description would much minimise the evils complained of.

**Offensive Trades.**—But few complaints have been made to me during the year, but that is not, in my opinion, a good criterion of the conditions that give cause for complaints. The tanning yards that use *puer* in their processes are those that necessarily cause nuisance unless the greatest care is taken. With respect to one of these, a deputation of inhabitants near the works waited on the Health Committee complaining of the intermittent nuisance to which they were subject. The petitions brought by this deputation contained 140 names. A Report was ordered on the works, and presented to the Health Committee at their meeting in December. At this same meeting a letter was presented with 176 signatories, saying the works were not obnoxious to the neighbourhood. The managers of the works have undertaken to make some alterations which will, I hope, much lessen the amount of the effluvium which has at times pervaded the immediate neighbourhood. Until this work has been completed the annual license granted by the Council has been withheld.

Table I.—DEATHS REGISTERED FROM ALL CAUSES during the Year 1900.

NOTE.—The Deaths of Non-Residents occurring in Public Institutions situated in the District are excluded, and the Deaths of Residents occurring in Public Institutions situated beyond the limits of the District are included.

	AGES.													Totals.
	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and up- wards			
I.—SPECIFIC FEBRILE, OR ZYMOTIC DISEASES.	30	29	8	4	3	6	5	10	12	3	1			111
II.—PARASITIC DISEASES.	1	1	1	1	1	1	1	1	1	1	1			11
III.—DIETIC DISEASES.	1	1	1	1	1	1	1	1	1	1	1			11
IV.—CONSTITUTIONAL DISEASES.	14	4	7	7	18	15	25	37	16	1	1			144
V.—DEVELOPMENTAL DISEASES.	34	1	1	1	1	1	1	1	1	1	1			43
VI.—LOCAL DISEASES.	60	89	14	13	21	45	45	71	68	45	6			438
VII.—DEATHS FROM VIOLENCE.	3	2	4	1	1	1	1	1	1	1	1			17
VIII.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES.	33	5	3	1	1	1	1	1	1	1	1			45
TOTALS.	175	90	36	25	47	68	75	121	115	87	36			875
I.—Specific Febrile, or Zymotic Diseases.														
1.—Miasmatic Diseases.														
Smallpox (Vaccinated)	1	1	1	1	1	1	1	1	1	1	1			11
Scarlet Fever	5	14	1	1	1	1	1	1	1	1	1			19
Whooping Cough	2	1	1	1	1	1	1	1	1	1	1			13
Diphtheria	2	5	6	1	1	1	1	1	1	1	1			13
Simple Continued and Ill-defined Fever	3	1	1	1	1	1	1	1	1	1	1			1
Other Miasmatic Diseases	4	1	1	1	1	1	1	1	1	1	1			38
2.—Diarrheal Diseases.														
Simple Cholera	12	5	1	1	1	1	1	1	1	1	1			19
3.—Malarial Diseases.														
Remittent Fever	1	1	1	1	1	1	1	1	1	1	1			11
Ague	1	1	1	1	1	1	1	1	1	1	1			11
4.—Zoonotic Diseases.														
Cowpox and effects of Vaccination	1	1	1	1	1	1	1	1	1	1	1			11
Other Diseases (e.g., Hydrophobia, Glanders, Splenic Fever)	1	1	1	1	1	1	1	1	1	1	1			11
5.—Venereal Diseases.														
Syphilis	3	1	1	1	1	1	1	1	1	1	1			5
Gonorrhea, Stricture of Urethra	1	1	1	1	1	1	1	1	1	1	1			11
6.—Septic Diseases.														
Erysipelas	1	1	1	1	1	1	1	1	1	1	1			11
Pyæmia, Septicæmia	1	1	1	1	1	1	1	1	1	1	1			11
Puerperal Fever	1	1	1	1	1	1	1	1	1	1	1			11
II.—Parasitic Diseases.														
Thrush, and other Vegetable Parasitic Diseases	1	1	1	1	1	1	1	1	1	1	1			11
Worms, Hydatids, and other Animal Parasitic Diseases	1	1	1	1	1	1	1	1	1	1	1			11
III.—Dietic Diseases.														
Want of Breast Milk, Starvation	1	1	1	1	1	1	1	1	1	1	1			11
Scorbut	1	1	1	1	1	1	1	1	1	1	1			11
Chronic Alcoholism	1	1	1	1	1	1	1	1	1	1	1			11
Delirium Tremens	1	1	1	1	1	1	1	1	1	1	1			11
IV.—Constitutional Diseases.														
Rheumatic Fever, Rheumatism of the Heart	1	1	1	1	1	1	1	1	1	1	1			11
Gout	1	1	1	1	1	1	1	1	1	1	1			11
Rickets	1	1	1	1	1	1	1	1	1	1	1			11
Cancer, Malignant Disease	1	1	1	1	1	1	1	1	1	1	1			11
Tubercular Meningitis, Hydrocephalus	1	1	1	1	1	1	1	1	1	1	1			11
Phthisis	1	1	1	1	1	1	1	1	1	1	1			11
Other forms of Tuberculosis, Scrofula	1	1	1	1	1	1	1	1	1	1	1			11
Purpura, Hemorrhagic Diathesis	1	1	1	1	1	1	1	1	1	1	1			11
Anæmia, Chlorosis, Leucocythæmia	1	1	1	1	1	1	1	1	1	1	1			11
Glycosuria, Diabetes Mellitus	1	1	1	1	1	1	1	1	1	1	1			11
Other Constitutional Diseases	1	1	1	1	1	1	1	1	1	1	1			11
V.—Developmental Diseases.														
Premature Birth	30	1	1	1	1	1	1	1	1	1	1			38
Abortions	2	1	1	1	1	1	1	1	1	1	1			11
Congenital Malformations	2	1	1	1	1	1	1	1	1	1	1			11
Old Age	1	1	1	1	1	1	1	1	1	1	1			11
VI.—Local Diseases.														
1.—DISEASES OF NERVOUS SYSTEM.														
Inflammation of Brain or Membranes	1	4	5	1	1	1	1	1	1	1	1			14
Apoplexy, Softening of Brain, Hemiplegia, Brain Paralysis	1	1	1	1	1	1	1	1	1	1	1			11
Insanity, General Paralysis of the Insane	1	1	1	1	1	1	1	1	1	1	1			11
Epilepsy	10	7	1	1	1	1	1	1	1	1	1			17
Cerebral Palsy	1	1	1	1	1	1	1	1	1	1	1			11
Laryngismus Stridulus (Spasm of Glottis)	1	1	1	1	1	1	1	1	1	1	1			11
Disease of Spinal Cord, Paraplegia, Paralysis Agitans	1	1	1	1	1	1	1	1	1	1	1			11
Other Diseases of Nervous System	1	1	1	1	1	1	1	1	1	1	1			11
2.—DISEASES OF ORGANS OF SPECIAL SENSE.														
(e.g., of Ear, Eye, Nose)	1	1	1	1	1	1	1	1	1	1	1			11
3.—DISEASES OF CIRCULATORY SYSTEM.														
Pericarditis	1	1	1	1	1	1	1	1	1	1	1			11
Acute Endocarditis	1	1	1	1	1	1	1	1	1	1	1			11
Valvular Diseases of Heart	1	1	1	1	1	1	1	1	1	1	1			11
Other Diseases of Heart	1	1	1	1	1	1	1	1	1	1	1			11
Anæmias	1	1	1	1	1	1	1	1	1	1	1			11
Embolism, Thrombosis	1	1	1	1	1	1	1	1	1	1	1			11
Other Diseases of Blood Vessels	1	1	1	1	1	1	1	1	1	1	1			11
4.—DISEASES OF RESPIRATORY SYSTEM.														
Laryngitis	3	1	1	1	1	1	1	1	1	1	1			11
Croup	1	1	1	1	1	1	1	1	1	1	1			11
Empyæmas, Asthma	1	1	1	1	1	1	1	1	1	1	1			11
Bronchitis	16	12	1	1	1	1	1	1	1	1	1			27
Pneumonia	14	12	2	3	5	5	8	10	12	11	2			82
Pleurisy	1	1	1	1	1	1	1	1	1	1	1			11
Other Diseases of Respiratory System	1	1	1	1	1	1	1	1	1	1	1			11
5.—DISEASES OF DIGESTIVE SYSTEM.														
Dentition	4	4	1	1	1	1	1	1	1	1	1			11
Sore Throat, Quinsy	2	1	1	1	1	1	1	1	1	1	1			11
Diseases of Stomach	11	3	1	1	1	1	1	1	1	1	1			17
Enteritis	1	1	1	1	1	1	1	1	1	1	1			11
Obstructive Diseases of Intestine	1	1	1	1	1	1	1	1	1	1	1			11
Peritonitis	1	1	1	1	1	1	1	1	1	1	1			11
Ascites	1	1	1	1	1	1	1	1	1	1	1			11
Carcinoma of Liver	1	1	1	1	1	1	1	1	1	1	1			11
Jaundice and other Diseases of Liver	1	1	1	1	1	1	1	1	1	1	1			11
Other Diseases of Digestive System	1	1	1	1	1	1	1	1	1	1	1			11
6.—DISEASES OF LYMPHATIC SYSTEM														
(e.g., of Lymphatics and of Spleen)	1	1	1	1	1	1	1	1	1	1	1			11
7.—DISEASES OF GLAND-LIKE ORGANS OF UNCERTAIN USE														
(e.g., Bronchæ, Adipose Tissue)	1	1	1	1	1	1	1	1	1	1	1			11
8.—DISEASES OF URINARY SYSTEM.														
Nephritis	1	1	1	1	1	1	1	1	1	1	1			11
Bright's Disease, Albuminuria	1	1	1	1	1	1	1	1	1	1	1			11
Disease of Bladder or of Prostate	1	1	1	1	1	1	1	1	1	1	1			11
Other Diseases of the Urinary System	1	1	1	1	1	1	1	1	1	1	1			11
9.—DISEASES OF REPRODUCTIVE SYSTEM.														
A. Of Organs of Generation.														
Male Organs	1	1	1	1	1	1	1	1	1	1	1			11
Female Organs	1	1	1	1	1	1	1	1	1	1	1			11
B. Of Parturition.														
Abortion, Miscarriage	1	1	1	1	1	1	1	1	1	1	1			11
Puerperal Convulsions	1	1	1	1	1	1	1	1	1	1	1			11
Placenta prævia, Flooding	1	1	1	1	1	1	1	1	1	1	1			11
Other Accidents of Child Birth	1	1	1	1	1	1	1	1	1	1	1			11
10.—DISEASES OF BONES AND JOINTS.														
Caries, Necrosis	1	1	1	1	1	1	1	1	1	1	1			11
Arthritis, Osteitis, Parositis	1	1	1	1	1	1	1	1	1	1	1			11
Other Diseases of Bones and Joints	1	1	1	1	1	1	1	1	1	1	1			11
11.—DISEASES OF INTEGUMENTARY SYSTEM.														
Carbuncle, Phlegmon	1	1	1	1	1	1	1	1	1	1	1			11
Other Diseases of Integumentary System	1	1	1	1	1	1	1	1	1	1	1			11
VII.—Deaths from Violence.														
1.—ACCIDENT OR NEGLIGENCE.														
Fractures and Contusions	1	1	1	1	1	1	1	1	1	1	1			11
Gunsbot Wounds	1	1	1	1	1	1	1	1	1	1	1			11
Cut, Stab	1	1	1	1	1	1	1	1	1	1	1			11
Burn, Scald	1	1	1	1	1	1	1	1	1	1	1			11
Poison	1	1	1	1	1	1	1	1	1	1	1			11
Drowning	1	1	1	1	1	1	1	1	1	1	1			11
Suffocation	1	1	1	1	1	1	1	1	1	1	1			11
Otherwise	1	1	1	1	1	1	1	1	1	1	1			11
2.—HOMICIDE.														
Manslaughter	1	1	1	1	1	1	1	1	1	1	1			11
Murder	1	1	1	1	1	1	1	1	1	1	1			11
3.—SUICIDE.														
Gunsbot Wounds	1	1	1	1	1	1	1	1	1	1	1			11
Cut, Stab	1	1	1	1	1	1	1	1	1	1	1			11
Poison	1	1	1	1	1	1	1	1	1	1	1			11
Drowning	1	1	1	1	1	1	1	1	1	1	1			11
Hanging	1	1	1	1	1	1	1	1	1	1	1			11
Otherwise	1	1	1	1	1	1	1	1	1	1	1			11
4.—EXECUTION.														
Hanging	1	1	1	1	1	1	1	1	1	1	1			11
VIII.—Deaths from Ill-defined and not Specified Causes.														
Droopy	1	1	1	1	1	1	1	1	1	1	1			11
Debility, Atrophy, Inanition	1	1	1	1	1	1	1	1	1	1	1			11
Mortification	1	1	1	1	1	1	1	1	1	1	1			11
Tumour	1	1	1	1	1	1	1	1	1	1	1			11
Alcohol	1	1	1	1	1	1	1	1	1	1	1			11
Hæmorrhage	1	1	1	1	1	1	1	1	1	1	1			11
Sudden Death (cause not ascertained)	1	1	1	1	1	1	1	1	1	1	1			11
Causes not Specified or Ill-defined	1	1	1	1	1	1	1	1	1	1	1			11

SUMMARY OF TABLE I.

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NOTE: The data are based on the results of the 1970 Census of the United States.

Age		Sex		Race		Marital Status		Education		Occupation		Income		Poverty Status	
Male	Female	Male	Female	White	Black	Married	Single	High School	College	Professional	Service	Under \$5,000	\$5,000-\$10,000	Over \$10,000	Below Poverty Level
15-19	15-19	15-19	15-19	15-19	15-19	15-19	15-19	15-19	15-19	15-19	15-19	15-19	15-19	15-19	15-19
20-24	20-24	20-24	20-24	20-24	20-24	20-24	20-24	20-24	20-24	20-24	20-24	20-24	20-24	20-24	20-24
25-29	25-29	25-29	25-29	25-29	25-29	25-29	25-29	25-29	25-29	25-29	25-29	25-29	25-29	25-29	25-29
30-34	30-34	30-34	30-34	30-34	30-34	30-34	30-34	30-34	30-34	30-34	30-34	30-34	30-34	30-34	30-34
35-39	35-39	35-39	35-39	35-39	35-39	35-39	35-39	35-39	35-39	35-39	35-39	35-39	35-39	35-39	35-39
40-44	40-44	40-44	40-44	40-44	40-44	40-44	40-44	40-44	40-44	40-44	40-44	40-44	40-44	40-44	40-44
45-49	45-49	45-49	45-49	45-49	45-49	45-49	45-49	45-49	45-49	45-49	45-49	45-49	45-49	45-49	45-49
50-54	50-54	50-54	50-54	50-54	50-54	50-54	50-54	50-54	50-54	50-54	50-54	50-54	50-54	50-54	50-54
55-59	55-59	55-59	55-59	55-59	55-59	55-59	55-59	55-59	55-59	55-59	55-59	55-59	55-59	55-59	55-59
60-64	60-64	60-64	60-64	60-64	60-64	60-64	60-64	60-64	60-64	60-64	60-64	60-64	60-64	60-64	60-64
65-69	65-69	65-69	65-69	65-69	65-69	65-69	65-69	65-69	65-69	65-69	65-69	65-69	65-69	65-69	65-69
70-74	70-74	70-74	70-74	70-74	70-74	70-74	70-74	70-74	70-74	70-74	70-74	70-74	70-74	70-74	70-74
75-79	75-79	75-79	75-79	75-79	75-79	75-79	75-79	75-79	75-79	75-79	75-79	75-79	75-79	75-79	75-79
80-84	80-84	80-84	80-84	80-84	80-84	80-84	80-84	80-84	80-84	80-84	80-84	80-84	80-84	80-84	80-84
85-89	85-89	85-89	85-89	85-89	85-89	85-89	85-89	85-89	85-89	85-89	85-89	85-89	85-89	85-89	85-89
90-94	90-94	90-94	90-94	90-94	90-94	90-94	90-94	90-94	90-94	90-94	90-94	90-94	90-94	90-94	90-94
95-99	95-99	95-99	95-99	95-99	95-99	95-99	95-99	95-99	95-99	95-99	95-99	95-99	95-99	95-99	95-99
100+	100+	100+	100+	100+	100+	100+	100+	100+	100+	100+	100+	100+	100+	100+	100+

Source: U.S. Census Bureau, 1970 Census of the United States, Table 1-10.

A prosecution for establishing an offensive trade in the City without permission was ordered by the Health Committee, and was conducted to a successful issue. The business was the drying of hair from a fellmonger's yard in an old malt kiln situated between Angel Street and Broad Street. This caused malodours to pervade several of the houses which were only a few yards away from the wooden shaft that carried off the air from the place in which the hair was dried. The business was stopped and a fine inflicted by the Magistrates for the offences committed.

The Report of the Sanitary Inspector follows the Statistical Tables, and is a *resumé* of the routine work that goes on from year to year. It may be again pointed out to your Authority that the staff of the Health Department remains the same as for many (15) years past, in spite of the numerous fresh duties which the Legislature has imposed on Local Authorities. It cannot be that these new duties are satisfactorily performed, especially those relating to the inspection of workshops. This is a matter which deserves serious consideration.

I remain, Gentlemen,

Your obedient Servant,

MABYN READ.

March 16, 1901.

TABLE II.  
AGE AND SEX DISTRIBUTION OF DEATHS FOR EACH MONTH OF THE YEAR 1900.

	January	February	March	April	May	June	July	August	September	October	November	December	Total.
Male ...	11	10	12	14	9	5	4	7	6	8	9	6	101
Under 1 year													175
Female...	9	6	8	2	4	4	3	3	3	9	10	13	74
Male ...	1	2	4	8	0	2	2	1	7	3	3	9	42
1 to 5 years													90
Female...	6	5	0	7	1	3	4	1	0	5	5	11	48
Male ...	22	14	13	16	12	21	12	7	10	13	10	13	163
5 to 65 years													362
Female...	24	23	23	15	18	13	12	9	10	16	18	18	199
Male ...	23	7	10	12	4	3	7	4	7	3	5	5	90
Over 65 years													233
Female...	29	14	14	19	10	6	8	6	9	10	7	11	143
Totals ...	125	81	83	93	58	57	52	38	52	67	67	86	396
													860
													464

N.B.—Tables II., III., and IV. do not include the 15 deaths that took place at Powick Asylum.

TABLE III.  
DEATHS AND BIRTHS OCCURRING IN PARISHES.

Parish.	Population estimated	Total Deaths.	Death- rate.	Births.	Deaths under 1 year.	Infantile Death- rate.
All Saints ...	1809	42	23·2	38	10	263
St. Andrew...	1175	32	27·2	31	10	322
St. Swithin ...	558	12	21·5	9	2	222
Blockhouse...	2202	46	20·8	74	13	175
St. Helen ...	945	27	28·5	26	7	269
St. Michael ...	444	3	6·7	2	...	...
St. Alban ...	153	6	39·2	9	2	222
College Precincts...	129	...	0·0	...	...	...
St. Nicholas..	1800	20	11·1	27	2	74
Whistones ...	2862	64	22·3	55	10	181
St. John .....	4800	86	17·9	131	8	68
St. Clement...	2107	46	21·8	74	14	189
South Hallow	486	8	16·6	12	2	166
St. Martin ...	4900	94	19·1	161	17	105
St. Peter .....	8400	159	18·9	261	40	153
South Claines	12,300	215	17·4	336	38	113

TABLE IV.  
ANALYSIS OF DEATHS OCCURRING IN PARISHES.

Parish.	Males.	Females.	Total.	Age.			
				Under 1 year.	1—5 years.	5—60 years.	Over 60 years.
All Saints.....	21	21	42	10	4	16	12
St. Andrew .....	13	19	32	10	4	7	11
St. Swithin .....	4	8	12	2	...	6	4
Blockhouse .....	25	21	46	13	10	15	8
St. Helen .....	12	15	27	7	2	11	7
St. Michael .....	...	3	3	...	...	1	2
St. Alban .....	3	3	6	2	...	2	2
College Precincts	...	...	...	...	...	...	...
St. Nicholas .....	8	12	20	2	...	7	11
Whistones.....	26	38	64	10	7	19	28
St. John.....	39	47	86	8	13	31	34
St. Clement .....	21	25	46	14	7	12	13
South Hallow ...	4	4	8	2	...	1	5
St. Martin.....	48	46	94	17	11	40	26
St. Peter .....	72	87	159	40	14	46	59
South Claines ...	99	116	215	38	17	86	74

TABLE V.  
DEATHS FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES IN 1900, COMPARED  
WITH THE PRECEDING TEN YEARS.

Year.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.			Diarrhoea.	TOTAL.	Zymotic Death-rate.
						Typhus.	Typhoid.	Con- tinued.			
1890.....	...	2	4	2	5	...	10	...	36	59	1'4
1891.....	...	32	...	2	60	1	8	...	21	124	2'8
1892.....	...	1	2	11	5	...	14	1	23	57	1'3
1893.....	1	19	4	9	6	...	9	...	44	92	2'1
1894.....	2	27	1	7	...	...	3	...	17	57	1'3
1895.....	...	...	1	7	55	...	3	...	30	96	2'1
1896.....	...	28	3	49	7	...	4	...	27	118	2'6
1897.....	...	32	2	33	24	...	3	...	18	112	2'5
1898.....	...	19	10	29	...	...	1	...	18	77	1'7
1899.....	...	16	3	15	16	...	1	...	24	65	1'9
Average of the preced- ing ten years	3	17	3	16	17	1	5	1	25'8	85'7	1'9
1900 ...	...	19	3	13	4	...	1	...	19	59	1'3

TABLE VI.—THE LOCAL GOVERNMENT BOARD TABLE.

Year.	Population estimated to middle of each year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		DEATHS IN PUBLIC INSTITUTIONS.	Deaths of Non-residents registered in District.		Deaths of residents registered beyond District.		DEATHS AT ALL AGES. NETT.	
		Number	Rate.*	Number	Rate per 1000 births registered	Number	Rate.*		10	11	12	13		
1	2	3	4	5	6	7	8	9	10	11	12	13		
1890	42,715	1256	29.4	225	179	903	21.1	128	25	—	878	20.6		
1891	42,950	1273	29.6	269	208	955	22.2	112	23	—	932	21.6		
1892	43,195	1267	29.3	209	164	1009	23.3	135	35	—	974	22.5		
1893	43,480	1244	28.6	207	166	838	19.2	107	13	11	836	19.2		
1894	43,735	1295	29.6	183	141	728	16.6	113	29	19	718	16.4		
1895	43,994	1365	31.02	259	189	969	22.2	139	37	8	940	21.3		
1896	44,250	1312	29.6	215	163	836	18.8	121	25	16	827	18.6		
1897	44,505	1270	28.5	208	160	908	20.4	160	32	7	883	19.8		
1898	44,760	1264	28.2	170	134	785	17.5	124	27	14	772	17.2		
1899	45,020	1240	27.5	186	150	894	19.8	146	37	8	865	19.2		
Averages for years 1890-1899.		1278	29.1	213	165	882	20.1	128	28	8	862	19.6		
1900	45,280	1246	27.5	175	140	896	19.7	136	36	15	875	19.3		

\*Rates calculated per 1000 of estimated population.

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 or 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 illness, and dying there; and by the term "Residents" is meant persons who have been taken out of the district on account of illness, and have died elsewhere.

Area of District in acres }  
(exclusive of area }  
covered by water). } 3242

Total population at all ages ... 42,908 } At Census  
Number of inhabited houses ... 9,318 } of  
Average number of persons per house ... 4.6 } 1891.

TABLE VII.—THE LOCAL GOVERNMENT BOARD TABLE.  
CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1900.

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.									
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	City of Worcester.	General Infirmary.	City of Worcester.	General Infirmary.
Small-pox .....	—	—	—	—	—	—	—	—	—	—	—
Cholera .....	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ...	92	1	18	58	10	5	—	91	1	62	1
Membranous Croup .....	—	—	—	—	—	—	—	—	—	—	—
Erysipelas .....	39	2	1	0	3	24	9	39	0	—	—
Scarlet Fever...	94	0	31	51	7	5	—	92	2	72	2
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	11	0	1	4	1	5	0	9	2	4	2
Relapsing Fever Continued	—	—	—	—	—	—	—	—	—	—	—
Fever .....	1	—	—	1	—	—	—	1	0	—	—
Puerperal Fever	8	—	—	—	2	6	—	8	0	—	—
Plague .....	—	—	—	—	—	—	—	—	—	—	—
Totals .....	245	3	51	114	23	45	9	—	—	—	—

**Report of the Sanitary Inspector for the  
Year 1900.**

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*TO THE URBAN SANITARY AUTHORITY OF  
THE CITY OF WORCESTER.*

Gentlemen,

I have much pleasure in presenting my Report for the year 1900.

As our work follows much the same routine as in previous years, I need, I think, only allude to a few heads in this Report. Your Medical Officer's statistical and fuller Report touches upon most of the sanitary questions, but I shall in my *resumé* of our work allude to one or two special heads.

The number of infectious diseases notified shew a very great diminution as compared with last year. The constant supervision exercised by the Health Department over the poorer and more crowded of our districts must have a tendency to reduce disease, by setting an example of cleanliness in the dwellings by the method adopted of having the houses regularly whitewashed and cleansed. The courts, too, being so much better paved, has all tended to help this better state of things.

As usual, owners of property have assisted us in carrying out improvements and abating nuisances, although at a considerable cost to themselves. More especially is this the case with regard to houses in which infectious diseases have occurred. I am glad to take this opportunity of

expressing my thanks to such owners for their consideration, which tends to make our work much easier and more pleasant than it otherwise would be. The proof of this is shewn in the few complaints I have had to bring before the Health Committee.

*Houses and Premises Cleansed and Repaired.*—**472** have been reported, and in each case the necessary work has been carried out. Owing to the age of many of the houses in the courts and poorer districts a constant supervision has to be kept over them. In several cases where the expense of doing them up would have been great the owners have decided to let them remain vacant.

*House Drains Cleansed and Repaired.*—Notices have to be constantly served for the same class of nuisance occurring on the same properties time after time. The carelessness of tenants and the faulty construction keep us constantly employed at this work. No doubt the number of cisterns we have had put in closets will tend to minimise this class of nuisance. **577** cases have been dealt with.

*Overcrowded Dwellings.*—I have the satisfaction of not having had so many cases under this heading as in previous years ; still I am afraid there are cases which do not come under our notice. The scarcity of houses with more than one bedroom at a reasonable rent tends to promote cases of this kind. There were 19 cases only.

*Privies and W.C.'s Repaired.*—**85** of these have been dealt with. This class of nuisance is a constant source of trouble, owing, I am sorry to say, in the majority of cases, to the stupid and wanton carelessness of tenants. It is an

actual fact that some will not take the trouble to pull the chain in order to flush the closets.

*Privies Converted into W.C's.*—As the old-fashioned privy and cesspit has almost ceased to exist, only a few cases have been dealt with. As I said in a former Report, over a thousand privies have been abolished and W.C's substituted in the last twenty years. I have only had to convert six this year.

*Polluted Wells.*—Four wells have been found polluted ; they were closed and the City water laid on.

*Ashpits and Privies emptied of Contents.*—Five hundred and nineteen have been cleared during the year, representing 2003 loads of refuse which have been removed.

*Miscellaneous Nuisances.*—Forty-eight have been dealt with under this head representing a variety of nuisances not comprehended under the other headings.

*Disinfection of Houses.*—Nearly 200 houses have been disinfected by this Department ; in cases where the patient has been nursed at home after any infectious illness, re-papering or whitewashing and painting is ordered.

*Factories and Workshops.*—Many of the Workshops have been inspected and found clean, and as a rule fairly well ventilated. Factories we are often inspecting, and in three instances we found the sanitary arrangements deficient. I had these faults at once made good.

*Slaughter Houses.*—Thirty-five are on the Register. These are inspected every week, and I may say, are kept very clean.

*Offensive Trades.*—There are now only nine on the

Register, one glue and size factory having been closed. The license for leather dressing has been held over till such time as alterations necessary for the purposes of lessening the smells have been carried out.

*Dairies, Cowsheds, and Milkshops.*—There are only a few cowsheds and dairies within the City, and 92 milkshops. These are inspected during our regular inspections of certain areas.

*Common Lodging Houses.*—These number 10, the same as last year; one had been closed owing to its dilapidated condition, and another one licensed of much better construction both as to the house itself and sanitary conditions.

*Shop Hours Act, 1892.*—The only faults I have had to find in carrying out this Act is the failure of some tradesmen to keep an abstract exposed in a conspicuous position, mainly through the ignorance of the shopkeeper. These have always been replaced when I have spoken about it.

*Total of Nuisances.*

Houses and Premises cleansed and repaired.....	472
House Drains cleansed and repaired .....	577
Overcrowded Dwellings .....	19
Privies and W.C's repaired .....	85
Privies converted into W.C's .....	6
Polluted Wells .....	6
Miscellaneous .....	48
Privies emptied of contents, including ashpits .....	519

## SALE OF FOOD AND DRUGS ACT, 1875, 1879.

No. of Samples.	Articles.	Adulterated or Genuine.	Results.
22	Milk ...	1 adulterated with 11·8 % of added water	Fined £5 and costs £2 18s. 6d.
		1 adulterated with 7·1 % of added water	Fined £2 and costs £1 13s. 6d.
6	Condensed Milk	All genuine	
21	Butter ...	All genuine	
8	Golden Syrup.	1 Sample mixed with glucose to the extent of 20 %	No prosecution
7	Demerara Sugar	All genuine	
2	Pepper ...	Genuine	
4	Coffee ...	Do.	
6	Vinegar ...	Do.	
1	Glucose ...	Do.	No arsenic
1	Olive Oil ...	Do.	
7	Beer ...	Do.	No arsenic
6	Well Water ...	Polluted	Wells closed
91			

In concluding this Report I must again express my thanks to the Medical Officer of Health for his support and advice which has been most courteously tendered. Also to Mr. Sheppard, the Assistant Inspector who has done good work during the year, and whose knowledge of building is very useful.

I am, Gentlemen,  
Your obedient Servant,  
W. PACY.



In considering the present report upon the progress of the  
work of the Mission, it is a pleasure to be able to report  
that the work has been carried on in a most successful  
manner, and that the number of converts has been  
increased. The work has been carried on in a most  
successful manner, and the number of converts has been  
increased.

W. P. C.

