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Annual Reports

For the Year 1909,

ON THE

Malvern Urban District

BY

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Medical Officer of Health;


AND

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Malvern:

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To the Malvern Urban District Council.



MR. CHAIRMAN AND GENTLEMEN,

I have the honour to present my Report for the year 1909, my second Report as your Medical Officer of Health.

Copies of this Report will, as usual, be sent to the Local Government Board, the Secretary of State, and the County Council.

Tables I., III., IV. and V. are given as required by the Local Government Board, while Number II. is omitted, not being applicable to the District.

Table I.

YEAR.	TOTAL DEATHS REGISTERED IN THE DISTRICT.										BIRTHS.		Population estimated to Middle of each Year.	Nett Deaths at all ages belonging to the District.				Nett Death Rate minus Deaths among Visitors.	
	Under 1 Year of Age.			At all Ages.			Total Deaths in Public Institutions in the District.	Deaths of Non-Residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Deaths at all ages belonging to the District.	No. of Visitors excluded	*Rate.		*Rate.	No. of Visitors excluded	*Rate.			
	Number	Rate per 1,000 Births registered.	*Rate.	Number.	*Rate.														
I	2	3	4	5	6	7	8	9	10	11	12	13	14	15					
1899	16000	296	18.5	27	87	215	13.4	—	—	—	—	—	—	—	—				
1900	16300	312	19.1	31	99	217	13.3	—	—	10	227	13.9	18	12.7					
1901	16448	328	19.9	31	94	178	10.8	—	—	13	191	11.6	22	10.2					
1902	16448	312	18.9	29	92	194	11.7	—	—	18	212	12.4	16	11.9					
1903	16448	306	18.5	17	55	154	9.3	—	—	19	173	10.5	13	9.7					
1904	16448	286	17.3	27	93	178	10.8	—	—	22	200	12.2	21	10.8					
1905	17500	287	16.4	15	52	158	9.0	—	—	17	175	10.0	22	8.7					
1906	17500	293	16.7	30	202	179	11.2	5	5	13	204	11.6	16	10.7					
1907	17500	271	15.4	21	77	165	9.4	7	—	20	185	10.5	11	9.9					
1908	18000	228	12.6	19	83	180	10.0	10	2	12	190	10.5	11	9.9					
Averages for years 1899-1908	16859	291	17.3	24	83	183	10.8	7	2	16	194	11.4	16	10.4					
1909	18000	261	14.5	21	80.4	213	11.8	8	1	14	226	12.5	21	11.3					

* Rate calculated per 1000 of estimated population.

Table II. is omitted, as it is not applicable to the Malvern Urban District.

Table III.

Cases of Infectious Disease notified during the year 1909.

NOTIFIABLE DISEASE.	At all Ages.	under 1	1 to 5	5 to 15.	15 to 25.	25 to 65.	Total Cases removed to Hospital.
Smallpox ..							
Cholera							
Diphtheria (including Membranous Croup)	10		1	7	1	1	9
Erysipelas ..	5	1				4	10
Scarlet Fever ..	50	1	3	35	11		19
Typhus Fever ..							
Enteric Fever ..	9	1		5		3	7
Relapsing Fever							
Continued Fever							
Puerperal Fever	1					1	
Plague							
Pulmonary Tuberculosis	1					1	
TOTALS ..	76	3	4	47	12	10	35

Table IV.

Causes of, and Ages at, Death during Year 1909.

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents," whether occurring in or beyond the District.						
	All Ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and up- wards
Smallpox							
Measles	1		1				
Scarlet Fever							
Whooping Cough	3		3				
Diphtheria including Mem- branous Croup)							
Croup							
Fever { Typhus							
Enteric							
Other continued							
Epidemic Influenza	5					3	2
Cholera							
Plague							
Diarrhœa	2		2				
Enteritis	2	1				1	
Puerperal Fever							
Erysipelas	1						1
Phthisis (Pulmonary Tubercu- losis).	9		1		1	6	1
Other tuberculous diseases	3	1		1	1		
Cancer, malignant disease	25					12	13
Bronchitis	11	2				1	8
Pneumonia	25	5	3			8	9
Pleurisy							
Other diseases of Respiratory Organs	2						2
Alcoholism) Cirrhosis of liver)	2					2	
Venereal Diseases							
Premature birth	4	4					
Diseases and accidents of par- turbation	2	1				1	
Heart diseases	33				1	8	24
Accidents	8	1		1		4	2
Suicides							
Senile decay	23						23
All other causes	65	6	2	2	2	25	28
All causes	226	21	12	4	5	71	113

Table V.

Infantile Mortality during the Year 1909.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 week	1-2 weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under 1 year
All Causes	Certified	6	1	1		8		2	1	2	1		1	1	1	1	1	19
	Uncertified			1		1	1											2
Common Infectious Diseases	Smallpox																	
	Chicken-pox																	
	Measles																	
	Scarlet Fever																	
	Diphtheria (including Membranous Croup)																	
	Whooping Cough ...																	
Diarrhoeal Diseases	Diarrhoea, all forms ...																	
	Enteritis, Muco-enteritis, Gastro-enteritis									1								1
	Gastritis, Gastro-intestinal Catarrh....																	
Wasting Diseases	Premature Birth ... 4	4				4												4
	Congenital Defects ... 1	1				1												1
	Injury at Birth ...																	
	Want of Breast-milk, Starvation																	
	Atrophy, Debility, Marasmus				1	1		1										2
Tuberculous Diseases	Tuberculous Meningitis																	
	Tuberculous Peritonitis: Tabes Mesenterica																	
	Other Tuberculous Diseases								1									1
Other causes	Erysipelas																	
	Syphilis																	
	Rickets																	
	Meningitis (not Tuberculous) ...																	
	Convulsions	1				1	1											2
	Bronchitis												1		1			2
	Laryngitis																	
	Pneumonia		1			1			1	1				1		1		5
	Suffocation, overlying					1												1
	Other Causes							1					1					2
		6	2	1		9	1	2	1	2	1		1	1	1	1	1	21

Table I. gives the general Vital Statistics for 1909 and previous years.

Birth-Rate

As shewn in the Table, 261 births were registered during the year, and the birth rate amounted to 14.5 per 1,000 of the population. You will notice that there is a satisfactory increase in the figures as compared with 1908, when the number of births was 228, making a birth-rate of 12.6.

Except for 1908, however, this year still shews a steady decline in the birth-rate, and this is common to the whole country. In 1876 the birth-rate for England and Wales was 36.3, while in 1909 it only amounted to 25.4 per 1,000 of the population.

Of the births in the district 134 were males and 127 females. This is a higher proportion of males than is usual in this country. It is of interest to note that though more males are born than females, yet that at all age periods save 5-15, more males die than females. In England and Wales the proportion of males born per 1,000 females has been gradually decreasing since 1841-5, when 1,052 males were born to 1,000 females, while in 1908 the excess was only 1,036. The proportion of males to females at birth is lower in England and Wales than in any other European country.

Death-Rate

In the District itself 213 deaths were registered. Calculated per 1,000 of the population, this amounts to a death-rate of 11.8. In addition, however, deaths in public institutions from outside the District of persons belonging to the District, have to be included, and these number 14, as follows:—

Upton-on-Severn Workhouse ...	...	...	10
Worcester Infirmary ...	...	...	3
Birmingham General Hospital ...	...	...	1
			—
			14

With these included, and excluding one death in the Malvern Hospital of a patient from another District, the death-rate amounts to 14 per 1,000 of the population.

As in previous years columns 14 and 15 have been added to Table I., excluding deaths which occurred among visitors. These numbered 21. Including deaths of residents belonging to the District, and excluding deaths of non-residents and visitors, the nett death-rate amounts to 11.3 per 1,000 of the population.

A point of interest in this respect is that last year in the District itself, 228 children were born, and 180 persons died. The figures this year are 216 and 213 respectively, so that 30 more were born and 30 more died.

Although there is an increase in the death-rate over 1908, still it is greatly below that for England and Wales, which amounted to

14.8 per 1,000 of the population, a fractional increase over that for the year 1908.

The exceptionally severe weather experienced during the latter part of February and March had, no doubt, something to do with the increase in the death-rate, as, in the eight weeks from February 20th to April 10th, there were 58 deaths, while in the corresponding eight weeks of 1908 there were only 31.

As might be expected, deaths at the weakest age periods, i.e., infants under five years and the aged, suffered greatly. All the deaths from broncho-pneumonia in children under one year of age (Table V.) took place during this period, and six deaths from senile decay, the oldest having reached the great age of 92. Influenza accounted for four victims out of the five notified during the year, but most striking was the incidence of chest complaints.

In these eight weeks in 1909 the number of deaths from chest complaints at all ages was 27, as compared with 5 in 1908.

As I pointed out in my last Report, a continued low birth-rate is in favour of a rise in the death-rate, as it follows that there is a smaller proportion of the population at the age period where mortality is lowest, i.e., 10-15.

No fewer than 9 deaths (one a non-resident) were due to accidents, as compared to 4 in 1908. These included the death of an infant from overlying and two motor-car accidents.

Whooping Cough accounted for 3 deaths, two in children under two years and one aged four years, and Measles for 1 aged one year.

Of the 23 cases of death from Senile Decay the youngest was 76 and the oldest 92, while the average age was 85.

The Table also shews that 113, or half, of the deaths occurred in persons over 65 years of age.

Of 75 and over there were 67.

Of 80 and over there were 37.

Of 90 and over there were 6.

The greatest age was 94 years.

Ten deaths were registered by certificates from the Coroner, and two were uncertified, both of children under one year.

Infantile Mortality.

Twenty-one infants under one year died during the year, which, calculating per 1,000 births, gives an Infantile Mortality of 80.4. The average for the previous 10 years was 83, and even this was a satisfactory figure, as the standard for a healthy district is about 100. The Infantile Mortality for England and Wales amounted to 109 per 1,000 registered births, while in 1908 it was 120.

1909 favoured a low Infantile Mortality owing to the cold and wet summer, and it will be noticed from Table V. that only 1 death was due to Diarrhoeal Disease.

Two deaths were uncertified, one from overlying and one from convulsions.

The Notification of Births Act, 1907, has been adopted by the County Council during the year. By this Act it is the duty of the father and of the person in attendance at a confinement, to notify the Medical Officer within 36 hours of the birth of the child, under a penalty not exceeding 20 shillings.

By means of this Act, Health Visitors, etc., may visit the mothers soon after the birth, and instruct them in the proper care and feeding of the child, and so, it is hoped, check the great waste of infant life.

The carrying out of the provisions of this Act is under the supervision of the County Medical Officer of Health.

Table VI.

Area in Acres ... 4,777. Estimated Population in 1909... 18,000.

Births.		Nett Deaths.		Infantile Mortality.	
Number of	Rate per 1000 of population.	Number of	Nett Rate per 1000 of Population, excluding deaths among Visitors.	Number of deaths under 1 year of age	Rate per 1000. Births registered.
261	14.5	205	11.3	21	80.4

Cases of Infectious Diseases Notified.

	Small-pox	Scarlatina	Diphtheria and Membranous Croup	Fever	Erysipelas	Puerperal Fever	Observation Ward
Cases	—	50	10	9	5	1	4
Deaths	—	—	—	—	—	—	—
Hospital Cases ...	—	19	9	7	—	—	—
„ Deaths in	—	—	—	—	—	—	—

The Extent, Distribution and Causes of Notifiable Disease

Details are given in Tables III. and IV.

Small Pox

No case of Small-pox occurred during the year.

Scarlet Fever

Table VII.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Scarlet Fever.													
Cases	—	9	17	6	1	—	1	1	1	2	4	8	50
Deaths	—	—	—	—	—	—	—	—	—	—	—	—	—

Table VII. shews the incidence of this disease. In all 50 cases were notified.

Twenty-six of these were in connection with an outbreak at one of the private institutions in the district.

Owing to 3 cases having been notified within a week among children in the same class at the Malvern Wells School, your Inspector systematically visited the homes of children in that School, and, thanks to his vigilance, the cause was found in a household where four children were desquamating.

They had been attending school, and though they had suffered from the usual symptoms of the disease a month or so previously, it had been mistaken for measles, and it had not been considered necessary to call in a doctor.

Fortunately the Easter holidays were beginning; except for this, and the prompt isolation adopted, what might have become a serious epidemic was arrested.

Three cases occurred in one house at Barnard's Green in December. In these the source of infection was imported by one of the inmates who had been nursing a case of Scarlet Fever in another district.

In two other cases also the patients became infected with the disease outside the District.

The remaining 12 cases were scattered over the District during the year, and there was no reason to suspect any direct infection from one case to the other.

Nineteen cases were treated in your Isolation Hospital.

No deaths were registered from the disease.

Diphtheria

Table VIII.

Diphtheria.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Cases ...	3	—	1	—	—	—	—	—	2	2	—	2	10
Deaths ...	—	—	—	—	—	—	—	—	—	—	—	—	—

Table VIII. shews that 10 cases of this disease were notified, and how the disease was spread over the year.

One of these cases was removed, at the end of last year, to the Observation Ward from the Common Lodging House, and was only notified in January.

In four cases the source of the infection was traced to outside sources.

There was no direct infection from one to another in the same family.

In two cases drainage defects were discovered, and the house in which a third case occurred was in an insanitary condition. These defects have since been remedied.

Four of the cases were removed to your Hospital.

There was no death from the disease.

Typhoid Fever

Table IX.

TYPHOID FEVER.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
CASES	4	1	2	..	..	1	..	1	.	.	..	..	9
DEATHS ... ..	..	..	.	..	..	..	..	..	..	..	..	.	—

As shewn in the Table, 9 cases were notified during the year. The 5 cases notified in January and February occurred in members of the same household, which consisted of husband and wife, and five children (one under a year old) all of whom took the disease.

Typhoid Fever is a disease of youth and early adult life, and it is rare for an infant to be affected.

The source of this outbreak is obscure. The family had only recently come into the district. A slight drainage defect was found, but though promptly remedied, others of the family became affected.

The possibility of direct infection in Typhoid Fever has been denied by many authorities, and typhoid fever patients have been treated in the wards of some general hospitals, but in this case direct infection seems the only probable cause of the spread of the infection.

The 2 cases notified in March belonged to the same family, and the first of these to fall sick had been in the habit of playing with the children mentioned above. The second, which was notified a little more than a fortnight later, had been nursing the patient, her child.

The household drinking water was from a well, a sample of which was taken, but the result of the analysis did not warrant its being condemned.

Of the 2 remaining cases, one came here ill, and the other shewed symptoms in about a week after arrival.

Seven cases were removed to Hospital.

There was no death from the disease.

Erysipelas

Five cases of this disease were notified during the year, and one death was recorded.

There was no direct spread of infection.

Puerperal Fever

One case of this disease was notified, fortunately a mild type of the disease.

Except for the one death due to Erysipelas, it will be noticed that no death was attributable to notifiable disease.

Tuberculosis

As you are aware, the notification of Pulmonary Tuberculosis was made compulsory by an Order of the Local Government Board which came into force on January 1st, for all cases occurring among patients attended by Poor Law Medical Officers.

The following paragraphs on the subject are abstracted from the Report of the Medical Officer of Health to the Local Government Board:—

“The Order provides for the notification of the last home address of persons suffering from pulmonary tuberculosis coming under the care of the district medical officer or of the medical officer of a Poor Law institution, as soon as the disease is recognised; and for the immediate notification of changes of address of home-treated patients by relieving officers and of the home address when known of patients leaving the Poor Law institution by the superintending officers of the institution.”

“Subject to the condition that the notification must not lead to any action which will render the patient liable to a disability affecting him or his means of livelihood, sanitary authorities acting on the advice of their medical officers of health have ample powers given them under Article IX. (2) of the Order to take any steps for promoting cleansing and disinfection; for ensuring the safe disposal or destruction of infectious material (this includes, for instance, the provision of pocket spit-bottles), and for helping the patient in any way which will tend to prevent to spread of infection.”

“It is not uncommonly stated that early notification of cases is indispensable if good is to be done. Experience does not support this theoretical view. Such early notification is of course extremely desirable, but the following facts need constantly to be borne in mind:—

“Infectious discharges are most abundant in the later stages of the disease; the patient is then least able to control the destination of these discharges; repeated and frequent opportunities of receiving infection are required in most instances for the production of tuberculosis; and the close aggregation, consequent on poverty, of sick and well occurs most frequently at this stage of the disease. Medical help, including the segregation of advanced patients, is a supremely important measure in preventing the spread of tuberculosis. The possibility of this segregation has now been secured for a very large proportion of the total cases of tuberculosis in the country.”

“It will be observed that the Order throughout is framed with the utmost regard to the welfare of the consumptive patient. He is safeguarded against disabilities in relation to his occupation, etc.; and power is given for supplying him with such

"help as is needed. There need be, and in fact there is, no
"antagonism between the interest of the patient and of the
"public."

One case under this Order has been notified in the District during the year.

Table IV. shews that 9 deaths occurred in the District, 1 under five years of age and 1 over 65. This is equivalent to an annual death-rate of .5 per 1,000 of the population.

The Tuberculosis death-rate for the previous seven years has been as follows:—

1908	...	0.3.	1904	...	0.8
1907	...	0.5	1903	...	0.5
1906	...	0.5.	1902	...	0.4
1905	...	0.4.			

In England and Wales in 1908 it was 1.5.

Measles

This disease is not now notifiable but, during the latter half of the year, it was very prevalent in all parts of the District, and on account of it I advised the closure of several schools.

One death was registered as due to this disease in a child under two years of age.

Parents are still rather careless of measles and do not realise the serious consequences which may follow neglect of even a mild case, especially in young children.

The following figures extracted from the Registrar General's Report for 1908 may emphasize this point:—

Deaths due to Measles at all ages in 1908, 8,011. (These were 3,315 below the average of the five previous years.)

Deaths due to Scarlet Fever at all ages in 1908, 2,827.

The crude annual death-rates from Measles and Scarlet Fever in England and Wales for a million persons living were 226 and 80 respectively.

These figures of course do not imply that the case mortality of measles was almost three times as great as that of scarlet fever, and no doubt there were a great many more cases of the former disease, but they do shew that measles is a serious disease, being the cause of many deaths each year, and should be treated as such.

The idea that measles is a necessary evil, like teething, is still prevalent, and healthy children, even young children, are frequently allowed to play with those already affected, and contract the disease in order that "we may get through with it at the one time."

This procedure has probably been handed down from the last generation, and then no doubt scarlet fever was the more fatal disease, as in the years 1870-80 it was the cause of almost twice as many deaths. Since 1884, however, the numbers have decreased greatly, and the figures for 1908 are sufficient to shew that this way of regarding measles is now far from justifiable.

Whooping Cough

This disease is not notifiable, but during the earlier part of the year it was very rife in nearly all parts of the District, and on account of it the Mill Lane School was closed.

As you will notice from Table IV., 3 deaths were notified as due to this disease, which is a dangerous one in children under two years, who are very liable to succumb to pulmonary complications following the Whooping cough.

Table X. compares the death-rate of the respective zymotic diseases of Malvern in 1909 with the corresponding rates of England and Wales, and shews mortalities very favourable to Malvern.

Table X.

	All Causes	Principal Zymotic Diseases	Small-pox	Measles	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever	Diarrhoea.	Deaths under 1 year, per 1000 b'hs
Malvern	11.3	.22	0.0	0.05	0.0	0.0	0.16	0.0	.11	80
England and Wales	14.8	1.09	0.000	.33	6.8	.14	0.19	0.7	.28	109

*Small-pox, measles, scarlet fever, diphtheria, whooping cough, and diarrhoea.

School Closure

The following is a list of the schools closed on account of infectious disease:—

Whooping Cough

Mill Lane School (Infants' Dept.).—9th Feb. to March 15th.

Mill Lane School (Boys' and Girls' Dept.).—16th February to March 15th.

Measles

Cowleigh School (Infants' Dept.).—8th Sept. to Oct. 18th.

Cowleigh School (Boys' and Girls' Dept.).—23rd Sept. to Oct. 18th.

West Malvern School (all Depts.).—17th Sept. to Oct. 12th.

Malvern Link School.—6th Oct. to Nov. 1st.

Malvern Link New Council School (Infants' Dept.).—21st Oct. to Nov. 15th.

St. Joseph's School, Newtown.—21st Oct. to Nov. 8th.

Scarlet Fever and Disinfection

Malvern Wells School (all Depts.).—April 5th to April 8th.

Influenza Colds

Malvern Link School (Infants' Dept.).—Mar. 1st to Mar. 15th.

Malvern Link School (Boys' and Girls).—Mar. 2nd to Mar. 15th.

Wesleyan School (all Depts.).—Mar. 10th to Mar. 15th.

Chickenpox and Mumps

Mill Lane School.—Oct. 28th to Nov. 22nd.

In the majority of these cases closure was extended, and the dates shewn above are inclusive.

The subject of school closure as a preventative of the spread of disease has been much discussed in the Public Health Journals during the last few months.

In such diseases as measles, when the children are capable of giving infection to others, while still only sickening for the disease, theoretically closure of the school ought at once to check the spread. Practically, however, this does not quite hold good, as the children meet at play, and so, though to a less extent, the disease is communicated to others.

In rural districts where the children live in families separated from one another by some distance, and only meet at school, closure is very effectual, but in districts such as this it has not been, from my experience this year, so successful.

The unfortunate practice of giving prizes for regular school attendance is partly responsible for the spread of infection, as a child sickening for a disease and feeling very ill may still beg its mother to allow it to go in order not to lose a mark.

At the same time it must be remembered that in Malvern a certain number of children, belonging to one part of the District, attend school in another, and that if an outbreak occur in that school closure may prevent their contracting it, infecting children in their part of the district, and so leading to an outbreak in the school of that district.

In 1909 too the aspect of affairs has been somewhat changed by the introduction of the School Medical Officer of the County Council, who has also power to advise closure.

A Memorandum has been issued by the Local Government Board and the Chief Medical Officer of the Board of Education during the year, giving particulars of the powers of the Medical Officer of Health and School Medical Officer, and rules as to closure, etc.

The following paragraphs are of interest:—

“It may be laid down as a general principle that closure of a school or of a particular class is justified when the general evidence points to this school or class as the source of infection, and when cases of an infectious disease continue to occur in this class or school after every effort to discover the infecting cases has been made. The degree of application of this principle to special cases is discussed later.

“But while the Medical Officer of Health in deciding whether to advise the Sanitary Authority to require the closure of a public elementary school will be guided mainly by the consideration how best to check the spread of disease, other considerations may require also to be taken into account by the School Medical Officer in deciding whether to advise or to approve action taken voluntarily under Article 45 (b) of the Code.

“ School attendance may be greatly lowered during the prevalence of an infectious disease, especially of measles and whooping cough, and school closure may then be desired to avoid a considerable reduction in the average attendance. In such circumstances a large proportion of susceptible children have generally already contracted the disease or been exposed to infection, and the closure of the school commonly does little to prevent further spread of the disease. Closure by the Sanitary Authority under Article 57 of the Code is contemplated solely in the interests of public health, and apart from this consideration the Medical Officer of Health is not justified in advising closure to prevent financial loss to the Local Education Authority.

“ The question of closure, when that step is not clearly necessary to prevent the spread of disease, should therefore be left to the voluntary action of the Local Education Authority advised by the School Medical Officer, if he is not himself Medical Officer of Health. That Officer, however, before advising or approving closure, should confer with the Medical Officer of Health on the public health aspects of the proposed closure.”

Isolation Hospital

Table III. shews that 35 cases were treated during the year at your Hospital. Of these 19 were cases of Scarlet Fever, 9 of Diphtheria, and 7 of Enteric Fever.

Four cases were admitted to the Observation Ward. These were subsequently proved not to be of an infectious character.

Besides these 35 cases, the following were sent in from other districts:—

Martley Rural District... 2 cases of Scarlet Fever.

Upton-upon-Severn District ... 2 cases of Diphtheria.

I regret to have to record the loss which the Council and the District have sustained by the untimely death of Dr. A. M. Weir, who had been Medical Officer of the Isolation Hospital since its establishment.

Disinfection

During the year 515 rooms have been disinfected, and sterilisation of clothing and bedding has been efficiently carried out.

The method employed has been Formaldehyde vapour, and some new apparatus has been purchased during the year.

The results have been uniformly satisfactory.

House Accommodation

During the year 7 houses were closed. Of these 3, at Belmont, have been made habitable, but the other 4, 3 at The Chase and 1 at Link Top, remain closed.

Housing and Town Planning Act, 1909.

Among other things, this Act elaborate part of the Housing of the Working Classes Act. It gives increased powers of entry and simplifies closure and demolition. It also puts an end to the building of back-to-back houses.

House Drainage

Mr. Hillyard's Report shews that much good work has been done during the year.

Forty-seven applications were received for sanitary certificates, and 32 granted.

Excrement Disposal

The condition of affairs remains very much as stated in my last Report. During the year 34 closets have been furnished with flushing cisterns.

With regard to the number of flushing cisterns which have been put out of order for motives of economy on the part of the users, whereby the pans have been allowed to become foul and the drains choked, your Clerk has under consideration a bye-law, which I trust will remedy this, though in my opinion it would be more satisfactory to alter the method of charging for water.

Sewerage.

Your Surveyor, Mr. Thorp, has obliged me with the following statement:—

“ The past year has seen an expenditure of about £900 on
“ new sewers and replacing those which have been found defective,
“ but these have been principally in short lengths.

“ Among these may be mentioned the re-laying of the sewer
“ in the upper part of St. Peter's Road, to enable certain houses
“ to obtain a better fall to house drains (which have also been re-
“ laid), a new length in the lower part of St. Peter's Road to
“ provide for the development of this road where houses are now
“ being erected, and the sewers adjoining the Methodist Chapel,
“ Newtown Road. A length of defective brick barrel sewer
“ through the property of the Brompton Brewery Co. has been
“ replaced by a pipe sewer, whilst a similar old sewer at the top of
“ Church Street has also been modernised. A flat length of sewer
“ in Tanhouse Lane, Malvern Link, has been relaid at a better
“ gradient.

“ By an arrangement with the Upton-on-Severn R.D.C. the
“ long-standing difficulty in connection with the drainage of some
“ cottages at Sherrard's Green has been overcome, as we have
“ been able to lay a new sewer to deal with this property, which
“ has the new Upton-on-Severn sewer as its outfall. Some pro-
“ perty, adjoining the Electricity Works, has been dealt with in a
“ like manner. The proposed new sewer, for which sanction has

“ been obtained from the Local Government Board, to replace the
“ defective one at the rear of the Worcester Road, will shortly be
“ commenced.”

Sewerage Disposal Works

“ There is little to add to the satisfactory Report which was
“ made last year. The works and farms are all in good order, and
“ uniformly good effluents have been obtained throughout the
“ year, whilst no complaints were received as to smells from the
“ sprays during the last Summer.

Removal and Disposal of House Refuse

“ The removal of refuse continues to be satisfactorily carried
“ out as regards expedition and economy. The greater part is
“ destroyed at the Electricity Works, and the clinker used for town
“ purposes.”

Houses and New Buildings

“ The past year has seen the completion of 12 new houses,
“ and 12 instances of alterations and additions thereto. Among
“ other buildings, the following have been completed:—New
“ Elementary Schools, Coach House, Motor House, Stable, and
“ Gymnasium.”

Water Supply

“ During the year 1909 the rainfall recorded has been 30.29
“ inches. The amount of water consumed for all purposes has been
“ 120,218,000 gallons, of which 44,473,000 gallons were obtained
“ from the hills, and 75,745,000 gallons pumped up from Broms-
“ berrow. At the close of the year the whole of the reservoirs were
“ quite full.

“ The analysis of the water has proved the water to be of a
“ high standard of purity.

“ Owing to the increasing demand for water at Colwall a
“ reserve engine has been fixed at the Wyche Pumping Station,
“ so as to ensure a continuous supply for the high level districts,
“ whilst the pumping mains have been carried into the top of the
“ high level storage tanks to facilitate the more frequent cleansing
“ of this reservoir.

“ No new mains have been laid during the year, but 28 new
“ services have been connected up in the district.

During the year 21 samples of well water were examined. Ten
of these were condemned and town water has been laid on.

An unusual, and what might have been a serious, occurrence
took place in a house with a private supply of water and electricity
a current of 10 Amp. being in use. The iron water pipe from the
storage tank and the wires ran to the house in the same trench.

A leakage in the electricity was noticed, and some days later a
slight electric shock was felt on touching a tap connected directly
with the supply pipe, and the water was found to be green. Sub-
sequent analysis shewed this colour to be due to copper sulphate.

On investigation of the galvanised iron storage tank active
decomposition was found to be going on round the copper ball tap.

The current, apparently had been carried along the pipe to the tank, where, owing to the strong current in use, the resistance of the water had been overcome and electrical action taken place.

When the leakage was remedied the action ceased.

Places over which the Council have Supervision.

Common Lodging House

The only Common Lodging House in the District has been well conducted during the year, and your Inspector's Report shews that only slight improvements were found necessary.

A doubtful case of sore throat was removed to the Observation Ward at the end of last year. This later was found to be Diphtheria.

The value of an Observation Ward is well exemplified by this case, for without such a ward the infectious person would have had to remain in the Lodging House until an accurate diagnosis could have been established, and so run the risk of infecting other inmates.

The premises were thoroughly disinfected, and no other case occurred.

There was no case of infectious disease during the year.

Slaughter Houses

The 10 registered slaughter-houses have been regularly inspected and have been found in a fairly satisfactory condition.

In one instance it was found that a butcher was slaughtering on premises not licensed for that purpose. A warning was issued, and slaughtering there has been discontinued.

Thorough meat inspection under present circumstances is an impossibility. There is no Meat Inspector, and even if there was, he could not see all the carcasses killed as the slaughter-houses are so scattered, and the butchers have no special hours for killing.

The carcasses inspected both by myself and your Inspector during our visits have been of good quality.

The carcase of a pig was condemned as unfit for human food owing to its being affected with acute Rheumatism. The carcase was seized, and the facts reported to the Sanitary Committee.

Factories and Workshops

Inspection of these premises has been regularly carried out. A list of the improvements made during the year will be found in Mr. Hillyard's Report.

Dairies and Cowsheds

These have been visited from time to time both by myself and your Inspector.

The condition of affairs remains much as in former years, and it is to be regretted that the hoped for legislation on the subject was not carried through.

The arrangement of the majority of the farmyards leaves much to be desired, and the practice of dumping manure straight out from

the door of the shed, as done in several cases, is strongly to be condemned. The manure could be wheeled away daily with a little extra expenditure of time in the greater proportion of these.

The condition of the sheds themselves as regards cleanliness is fairly satisfactory, but several would probably require structural alterations in the event of a new Act being passed.

The dairies were clean and well kept.

Owing to the sudden outbreak of an epidemic of sore throats in a private institution in the District, I visited, with your Inspector, a farm outside the District, and later, with the permission of the Chairman of the Sanitary Committee, had the cows examined by a veterinary surgeon. Some defects were noted, but nothing sufficient to interdict the use of the milk at the institution in question.

Mr. Hillyard's Report follows, and shews the amount of excellent work he has carried through during the year.

I remain, Gentlemen,

Your obedient servant,

C. R. P. MITCHELL, M.D.,
Medical Officer of Health.

The Chase,
Malvern.

Annual Report of Sanitary Inspector.

SANITARY DEPARTMENT,
COUNCIL OFFICES,
MALVERN, FEB., 1910.

To the Chairman and Members of the Council.

GENTLEMEN,

I have pleasure in presenting to you my Thirteenth Annual Report, this being for the year 1909.

Record of Complaints

The complaints lodged at my Office and entered in the Record of Complaints have reference to the following insanitary conditions.

Drainage Defects	...	...	...	...	30
Defective Closet Accommodation	...	...	...	...	9
Nuisances from the keeping of Animals	...	...	...	...	3
Dirty or Defective Dwellings	...	...	...	...	9
Overcrowding	...	...	...	...	2
Accumulations of offensive matter	...	...	...	...	15
Unsatisfactory Water Supplies	...	...	...	...	12
Various Insanitary Conditions	...	...	...	...	19
Breaches of Factory and Workshops Act	...	...	...	...	3
Offensive Trades	...	...	...	...	1

Record of Insanitary Defects

The Record shews a total of 210 premises upon which insanitary defects have been discovered. Details of the work carried out in the removal of these conditions are enumerated in the Summary at the end of this Report.

Drainage Works

The drainage works carried out include the entire reconstruction of the drainage of 46 houses and the remedy of defects in the case of some 46 others.

The drainage of 32 premises such as stables and yards have also been dealt with.

In connection with these works it was found essential in three instances to amend and extend the public sewers in order that the required work might be effectually carried out, and these amendments have under your instructions been carried out by Mr. Thorp.

The drains at several cottages situated at Sherrard's Green below the level of the town sewers have been completely reconstructed, and by permission of the Upton-on-Severn Council made to discharge into a sewer recently constructed by that Authority, and thus conditions of a somewhat pressing character have been effectually rectified.

Water Closets

Requests for new and additional water closets have been made in 16 instances, and these have been built. Thirty-four have been furnished with flushing appliances and water supply, and a number of others have in various ways been improved.

The practice of cutting off water provided for flushing purposes is undoubtedly on the increase, the result being foul pans, stoppages in drains, and rusty unused water meters and fittings. The matter has been reported to the Sanitary Committee, and since then your Clerk, Mr. Whatley, has advised upon the framing of a bye-law with respect to the keeping of water closets supplied with sufficient water for flushing purposes.

Sanitary Certificates

There have been 47 applications for certificates, and 32 have been granted.

The premises for which these certificates have been issued are as follows:—

Private schools	...	...	...	...	3
Private institution	...	...	...	...	1
Boarding houses	...	...	...	...	2
Private residences	...	...	...	...	26

In 15 instances completed reconstruction of sanitary arrangements and drainage was found necessary, 16 required some improvements, and 1 proved satisfactory.

Housing of the Working Classes

Seven houses have been reported upon as being unfit for human occupation. Three of these, situated at Belmont, have changed hands, and, having been thoroughly renovated and provided with new sanitary arrangements and water supply, are again occupied. One of the others, situated at Link Top, and three more at the Chase, remain closed, whilst several cottages not sufficiently bad for closing have been cleansed and repaired.

Following close upon the adoptive Public Health Amendment Act, 1907, the sanitary provisions of which have just recently come into force within this District, comes the compulsory Housing, Town Planning Act, 1909, with new provisions and extended powers for dealing with houses under certain rentals and not reasonably fit for habitation.

House-to-House Inspection

Towards the close of the year I received instructions from the Sanitary Committee to make a house-to-house inspection of Upper Howsell, and this inspection is now being proceeded with. The houses in this locality are generally occupied by the working classes, and are such as can be dealt with under the new Act mentioned above.

Workshops

The total number of Workplaces under inspection is 136.

Visits to these premises have frequently been made with your Medical Officer of Health.

Twelve Workshops have been limewashed upon request, 2 have been ventilated, 1 has been re-drained, and defects remedied in 2 other instances. One underground Bakehouse has been certified, and the cubic capacity of 2 Workrooms has been fixed.

Three complaints have been received from H.M. Inspector of Factories, two having reference to closet accommodation at Factories and one as to the limewashing of a Workplace.

Common Lodging House

The only Common Lodging House in your District has been well conducted. It has been entirely free from illness during the year, and from Sergt. Johnson I understand that good order has been maintained. One or two appliances were found out of order, but these the keeper immediately rectified.

Slaughter Houses

The 10 Slaughter-houses have each been inspected at intervals, and on the whole have been well conducted.

A warning was issued to the owner of some premises at West Malvern against using a building and yard for the purpose of a slaughter-house, without the same being licensed or registered. Since then slaughtering in the premises has been given up.

Private Water Supplies

The total number of samples of water submitted to Mr. Duncan, the County Analyst, from private sources is 21. Ten of these samples were condemned, 4 were found satisfactory, and 7 unsatisfactory.

The samples condemned supplied 21 houses with water. Fifteen of these houses have since been supplied from the town main, 4 have been closed, and the defect in the 2 remaining instances discovered and rectified. In these two instances a current of electricity from a defective electrical wire had been conducted by means of the water pipes to some copper fittings within the storage tanks. This caused rapid decomposition of the copper, and the water became contaminated with the metal.

In 1907 I reported upon the condition of the collecting area of a private source of water, and your Committee subsequently cautioned the users of the risk regarding it. The result of the caution was an action by a user against the party from whose land the water flowed. The trial, to which I was subpoenaed to give evidence, occupied four days in the Chancery Division, but during the hearing the defendants admitted the causes upon which the caution from your Committee was based.

Cowsheds, Dairies, and Milkshops

The number of persons engaged in the above trades, and whose names appear upon the Register, is 53, and of these 37 are purveyors and 16 are cowkeepers, dairymen and purveyors.

I have always found the dairies to be very cleanly kept, and although cowsheds have occasionally been somewhat neglected, the condition so far as cleanliness is concerned has been fairly satisfactory. This, however, cannot be said of the animals and surroundings of the sheds, and during visits made with Dr. Mitchell, your Medical Officer, some occupiers have been cautioned and requested to exercise greater care in this direction.

In one instance I accompanied your Medical Officer to a farm outside your District, and with him examined the cows there, and on his instruction I subsequently accompanied a veterinary surgeon, when a thorough examination of the herd was made. Samples of milk were also taken from five different cows for analysis, but no action was found to be necessary.

Infectious Disease

Enquiries into cases of Notifiable Disease, under the direction of your Medical Officer, were made in all instances, and in 2 cases employees residing in homes at which infectious cases had been notified were prevented from assisting in the milk business.

Similar measures were also taken for preventing infection from reaching premises at which trades connected with wearing apparel, laundry work, and such like was carried on.

These investigations also lead to the discovery of 4 unreported cases which, though infectious, were just about to return to school. Enquiries into some other cases in the same locality, and attending the same school, shewed that the disease was spread during the time the unreported cases had been in the infectious stage.

Disinfection

Sixty rooms occupied by persons suffering from notifiable disease have been disinfected. Sixty-one loads of bedding and clothing have been removed to the Isolation Hospital for disinfection, and three lots have been destroyed.

In addition to these numbers some 455 rooms and 330 lots of clothing have been disinfected. This work was done by request as a precautionary measure, and the cost, which amounted to about £100, has been paid by those who applied for it to be done.

Formaldehyde has, under the direction of your Medical Officer of Health, been the disinfectant generally used, and excellent new appliances for producing vapour and for spraying have been procured.

Owing to a request from the County Council Education Committee, your Sanitary Committee have given me instructions to disinfect the Elementary Schools, at the cost of the Education Committee, when required by the School Medical Officer.

Summary of Works, etc.

Prevention of Infectious Disease under the direction of the Medical Officer of Health.

Cases enquired into	72
Rooms disinfected and cleansed	515
Patients removed to Hospital from the District	42
Patients removed from outside district	5
Unreported cases discovered	4
Loads of bedding disinfected	61
Lots of bedding destroyed	4

Houses Closed, Improved, etc.

Closed as unfit for habitation	7
Overcrowding abated	2
Cleansed, limewashed, etc.	14
Repaired, dampness abated	15
Roofs, eaves gutters, etc., repaired	8
Rain water pipes and gutters	9

Drainage Improvements.

House drains reconstructed	46
House drains repaired and unstopped	46
Yard and stable drains reconstructed	31
Yard and stable drains cleansed and repaired	1
Rain water pipes disconnected from drains, and defective inlets abolished	71
Inlets to drains removed from the inside of houses and buildings	4
Inspection chambers constructed	76
Gullies and intercepting traps fixed	145
Ventilating shafts and anti-syphonage pipes fixed	50
Soil pipes constructed	9
Soil pipes, etc., repaired	25
Cesspools abolished	3

Improvements to Closet Accommodation.

Additional water closets built	11
Water closets built in place of those faultily placed or found dilapidated	16
Water closets repaired, ventilated or cleansed	33
Water closets fitted with modern appliances	44
Water closets provided with water supply	34
Privies abolished	6

Improvements in connection with Sinks, Waste Pipes, Urinals, etc.

New sinks provided	25
Waste pipes and traps fitted to baths, sinks, lavatories, etc.	49
Rain water cisterns removed from inside houses	3
Urinals abolished	1

<i>Miscellaneous Nuisances Abated.</i>	
Accumulations of manure, filth, etc., removed	15
Nuisances from pig-keeping and other animals abated	2
Yards paved or repaired	18
Cesspools abolished	3
Defective and insufficient sewers reported and remedied...	3
<i>Water Supply.</i>	
Samples of well water submitted to Public Analyst	21
Samples condemned	10
Samples reported unsatisfactory	7
Town water laid on to houses	16
Faulty cisterns abolished	2
Cisterns provided with covers	3
<i>Factories and Workshops.</i>	
Number on Register	136
Certified for limewashing	13
Number of insanitary conditions dealt with... ..	6
Underground bakehouses certified	1
Cubic capacity fixed	1
<i>Slaughter Houses.</i>	
Registered or licensed	10
Regularly inspected	10
Repaired, limewashed and cleansed	10
Carcasses seized	1
Unsound meat surrendered	1
<i>Dairies, Cowsheds, and Milkshops.</i>	
Number of persons engaged in milk trade, now on Register and under supervision	53
Number of contraventions of Acts, Orders and Bye-laws dealt with	5
Samples of milk taken	5
<i>Common Lodging House.</i>	
Number on Register	1
Cleansed and repaired	1
<i>Clerical Work.</i>	
Number of Official letters	796
Statutory notices served	8
Miscellaneous written notices	157
Sanitary certificates issued	32
Copies of sanitary certificates	1
Number of premises entered in Record of Insanitary Defects...	210
Number of entries in Record of Complaints	63
Monthly and special Reports to Sanitary Committee	12
Number of entries in Register of Infectious Disease	74
Number of entries in Register of Workshops	3
Number of entries in Register of Dairies, Cowsheds and Milkshops	3

I am, Gentlemen,

Your obedient servant,

HENRY HILLYARD,

Sanitary Inspector.

