

[Report 1908] / Medical Officer of Health, Bucklow R.D.C., Knutsford U.D.C., Middlewich U.D.C., Winsford U.D.C., Biddulph U.D.C.

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1908.

Annual Reports

AND

VITAL STATISTICS.

The Rural District of

BUCKLOW,

AND

The Urban Districts of

**KNUTSFORD, MIDDLEWICH, WINSFORD,
AND BIDDULPH.**

PREPARED BY

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Incorporated Society of Medical Officers of Health; Fellow
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Sanitary Institute; &c., &c.*

The Medical Officer of Health of the Districts.

**In accordance with Instructions from the Local
Government Board.**

Gongleton :

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**To the Chairmen and Members of the several
District Councils whose Reports follow:**

Gentlemen,

In presenting my fourteenth Annual Report for the Bucklow, Biddulph, and Knutsford Districts, and thirteenth for the Middlewich and Winsford Districts, I ask permission very respectfully to draw attention again to the prefatory letter which I published in my Volume for 1904.

I am responsible for the Public Health of about 52,000 persons. No other Medical Officer of Health (so far as I know) who has the care of an equal population, is without some office and clerical assistance. My Districts however are independent of one another, and only temporarily associated in my hands; so that this provision is not made for me. I provide my own office; clerical assistance I have none; and the preparation of the Annual Reports, a work of no little time and trouble (though one in which I take a pride), falls, to the smallest detail, on my individual and unaided efforts. In addition, all my seasonal and routine work claims daily attention; consequently my time for writing is irregular and broken; and hence the delay which each year necessarily occurs before the publication of the complete Volume.

The Local Government Board is in favour of Medical Officers of Health serving large areas and giving their whole time to the work. Such Officers must necessarily be non-resident in all their Districts (save one), and it is therefore evident that non-residence is not found to interfere with the proper performance of duty. But as a large amount of travelling, both by road and by rail, is involved, it also follows that the Medical Officer of Health must

be given a free hand in the arrangement of his work. Now in my case the five Councils collectively do not pay me for the whole of my time; and (although I am, since March, 1908, doing no other work), the above condition is very important to me; and I respectfully ask that it may be frankly recognised.

In my fourteen years' work I can honestly say that I have never yet failed to give prompt personal attendance in any matter of sufficient importance to demand it; and I propose to follow the same routine in the coming year, gratefully acknowledging my indebtedness to the several Inspectors of Nuisances for their local assistance. With their co-operation your work will continue to be done efficiently, as it has been in the past, without unfair demands upon my time, or convenience.

I beg to thank you, Gentlemen, for your continued confidence; and am,

Your obedient Servant,

T. W. H. GARSTANG.

January 1st, 1909.



TABLE 1.
VITAL STATISTICS FOR 1908.

	Annual Rate per 1,000 Living.				Deaths under 1 Year to 1,000 Births.
	Births.	Deaths.		Principal Epidemic Diseases.	
		Crude.	Cor- rected.		
England and Wales ...	26·5	14·7	14·7	1·29	121
Rural England & Wales	26·2	14·7	13·8	0·99	110
76 Great Towns ...	27·0	14·9	15·8	1·59	128
142 Smaller Towns ...	26·0	14·0	14·7	1·26	124
Bucklow Rural ...	21·2	11·1		1·0	100
Biddulph Urban ...	34·3	12·0		2·3	87
Knutsford Urban ...	26·4	12·3		1·2	81
Middlewich Urban ...	28·9	16·4		1·6	182
Winsford Urban ...	25·9	15·4		2·0	156

(See also Table on page 6).

TABLE 2.
 DETAILS OF DEATH RATES 1908.

DEATHS FROM	Bucklow Rural.	Biddulph Urban.	Knutsford Urban.	Middlewich Urban.	Winsford Urban.
Seven Principal Zymo- } tic Diseases	0.96	2.30	1.25	1.61	1.97
Other Infectious Diseases	—	—	—	—	0.09
Phthisis... ..	0.46	0.14	0.18	0.60	0.94
Other Tuberculous } Diseases	0.09	0.27	0.53	1.21	0.28
Influenza	0.04	0.14	0.35	0.40	0.09
Respiratory Diseases ...	1.70	2.16	2.50	2.60	2.53
Heart Disease	1.51	0.95	1.43	1.41	2.44
Violence	0.32	0.27	0.71	1.01	1.13
Alcoholism	0.23	—	0.36	0.20	—
Cancer	0.96	0.81	—	1.61	0.75
Infantile Deaths not } included above	1.19	1.89	1.25	2.02	1.97
Senile Deaths not in- } cluded above	2.20	1.76	2.14	2.02	2.06
Miscellaneous	1.46	1.34	1.62	1.67	1.14
	11.12	12.03	12.32	16.36	15.39

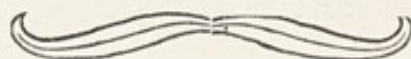
(See also Table on page 5).

TABLE 3.

Comparison of Rates for past Thirty Years.

		Bucklow.	Biddulph.	Knutsford.	Middlewich.	Winsford.
Birth Rate.	Average 1878-1887	—	—	—	38·8	39·8
	„ 1888-1897	—	33·0	29·9	36·6	34·3
	„ 1898-1907	21·8	34·9	25·5	34·1	31·5
	1908	21·2	34·3	26·4	28·9	25·9
Death Rate.	Average 1878-1887	—	18·9	16·0	22·1	18·6
	„ 1888-1897	—	15·6	13·9	17·2	16·3
	„ 1898-1907	12·7	15·6	15·1	16·4	14·5
	1908	11·1	12·0	12·3	16·4	15·4
Zymotic Death Rate.	Average 1878-1887	1·1	—	—	3·0	3·0
	„ 1888-1897	—	1·9	1·2	1·8	1·7
	„ 1898-1907	0·9	1·7	1·2	2·2	1·6
	1908	1·0	2·3	1·2	1·6	2·0
Infantile Mortality Figures.	Average 1878-1887	101	—	—	174	144
	„ 1888-1897	—	136	143	160	144
	„ 1898-1907	107	131	120	147	126
	1908	100	87	81	182	156

GENERAL SUBJECTS.



Printing.—In consequence of the practical difficulty of printing the Official Tables, with all their “Notes,” on pages of this size, the “Notes” are (as before) omitted from the Tables, to give more room for the figures; and, as they have been printed in full in the Reports for 1901, 1902 and 1903, they will on this occasion be omitted altogether.

Instructions.—The official Memorandum which is annually issued by the Local Government Board, giving instructions as to the preparation of Reports, is this year considerably expanded, enumerating in greater detail the matters to be reported, and requiring that “each of the points” shall be “mentioned.” The necessity of obeying a further instruction to complete the Reports within two (or at most three) months, will compel me to be very brief on many points, in order to be able to discuss adequately those which appear to myself to be most important. I shall do my best, (see Introductory Letter,) and no man can do more.

Arrangement.—I propose to follow my usual plan, that is, to write first a certain number of paragraphs, which are intended to be considered as an integral part of each of the individual Reports which follow. The matter in the Reports is arranged in the same order that is adopted by the County Medical Officer of Health; any subjects omitted are inapplicable to the District under consideration, or because I have no means of obtaining information, or for other similar reason.

This year it is the turn of the Winsford Report to be written first; the others will follow in the usual order.

1908.—The prominent features of this year are the scarlet fever epidemic in Winsford, which promises to extend into 1909 also; a smaller, but definite, scarlet fever epidemic in the Bucklow District; the occurrence of one case of small-pox (Bucklow); the occurrence of one case of typhus at Winsford, (and two others at Middlewich, whose diagnosis was a little doubtful); and the prevalence of measles at Biddulph. On the whole therefore there has been an exceptional prevalence of infectious diseases.

THE OFFICIAL TABLES.

These are the same as for the previous year. In many Districts the Factories and Workshops Table issued by the Home Office, will require laborious compilation, and will be of primary importance. My Districts however are singularly free from the special trade conditions towards which it is directed.

ESTIMATES OF POPULATION.

These have been made with scrupulous care, so far as is possible in the absence of exact information. I rely upon an enumeration of inhabited houses, made from the rate-book; and add to this new houses nearing completion within the knowledge of the Surveyor; and multiply the total by the number of inhabitants per house as actually enumerated at the last Census.

The liability to error will of course increase with each year that passes, in the inter-Censal period.

All knowledge, on broad lines, of the sanitary condition of a District, as indicated by the number of deaths occurring within it, in a given time, in proportion to its population, **and in comparison with neighbouring Districts**, is expressed in, and derived from, the figures which are periodically calculated, and published, and called "Rates"; and it is therefore clear that no trouble is too great to take, to ensure the absolute accuracy of these figures, and this depends entirely upon a correct knowledge of the population. With a Census taken only once in 10 years, errors are unavoidable. If the Census were taken every 5 years they would be automatically reduced by about 75 per cent., and would become comparatively unimportant.

INTER-NOTIFICATION OF DEATHS OF NON-RESIDENTS.

This has been systematically carried out during 1908. Without enumerating the details I may just say that I have sent 93 notices and received 47; (including 29 inter-communications between by own Districts); making a total in 9 years of 647 sent and 203 received.

I note with satisfaction that I now receive notices from an increasing number of Boroughs and Districts.

PHTHISIS AND TUBERCULOUS DISEASES.
TABLE 4.

Deaths and Death-rates.												
	1897 to 1907.				1908.				TOTAL.			
	Phthisis.	Other Tubercular Diseases.	Total.	Rate.	Phthisis.	Other Tubercular Diseases.	Total.	Rate.	Phthisis.	Other Tubercular Diseases.	Total.	Rate.
Bucklow R. ...	169	65	234	1.0	10	2	12	0.5	179	67	246	1.0
Biddulph U. ...	58	28	86	1.2	1	2	3	0.4	59	30	89	1.2
Knutsford U.	35	17	52	0.9	1	3	4	0.7	36	20	56	1.0
Middlewich U.	44	40	84	1.6	3	6	9	1.8	47	46	93	1.6
Winsford U.	81	37	118	1.1	10	3	13	1.2	91	40	131	1.0
	387	187	574	1.1	25	16	41	0.8	412	203	615	1.0

Table 4 now includes the figures for 11 years, 1897 to 1907, from my last Report, and the new figures for 1908. There is a distinct drop in the number of deaths during 1908, as compared with the average of the previous years. If the improvement be maintained in future, this year will be remembered as the turning point.

VOLUNTARY NOTIFICATION OF PHTHISIS.

The notifications in 1908 were 7; see Table 5; although we have just seen that 25 deaths occurred. The voluntary system may therefore be considered to have failed; and compulsory notification will no doubt, sooner or later, be enforced.

TABLE 5.

Notifications of Phthisis.									
	1901	1902	1903	1904	1905	1906	1907	1908	Total.
Bucklow R.	2	1	6	4	5	2	2	1	23
Biddulph U.	0	0	1	0	0	0	0	0	1
Knutsford U.	1	0	0	0	0	0	0	0	1
Middlewich U.	1	2	0	2	1	1	0	0	7
Winsford U.	9	7	10	4	3	1	5	6	45
	13	10	17	10	9	4	7	7	77

There will, in future, be a few notifications from District Medical Officers under the new Act, which makes it compulsory for them to notify pauper cases. I have also re-issued my original circular of 1901, again inviting voluntary notifications; though past experience does not justify great expectations.

NOTIFIABLE INFECTIOUS DISEASES.

TABLE 6.

	Notifications.								
	1890	1891	1892	1893	1894	1895	1896	1897	1898
Bucklow R. ...	39	46	107	240	182	79	65	59	46
Biddulph U....	20	22	24	15	39	25	55	17	7
Knutsford U.	—	—	—	—	—	25	12	5	6
Middlewich U.	0	9	1	123	24	53	67	31	18
Winsford U....	42	40	43	267	31	47	197	47	22
	101	117	175	645	276	229	396	159	99

	Notifications.									
	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Bucklow R. ...	106	96	158	102	97	117	108	106	72	105
Biddulph U....	118	26	21	13	28	50	30	47	22	30
Knutsford U.	70	18	17	8	25	17	14	57	64	14
Middlewich U.	23	12	8	35	26	80	61	47	56	19
Winsford U....	39	147	93	44	23	43	51	38	80	280
	356	299	297	202	199	307	264	295	294	448

TABLE 7.

Notifications in 1908.										
	Estimated Population.	Small-pox.	Typhus.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Erysipelas.	TOTAL.	Case-rate per 1000 of popula- tion.
Bucklow R.	22770	1	0	65	25	2	2	10	105	4.6
Biddulph U	7400	0	0	4	26	0	0	0	30	4.0
Knutsford U.	5600	0	0	10	1	2	0	1	14	2.5
Middlewich U.	4950	0	2	3	9	0	3	2	19	3.8
Winsford U.	10656	0	1	228	29	4	4	14	280	26.3
	50376	1	3	310	90	8	9	27	448	8.9

Tables 6 and 7 show 1908 to be the worst year for prevalence of infectious diseases save only 1893; but the incidence has fallen entirely upon Winsford.

None of the other Districts are "out of the way"; indeed there is a very gratifying decrease in Knutsford and Middlewich. Scarlet fever is the disease which has affected the year unfavourably. Diphtheria also seems to be more prevalent than formerly.

DEATHS FROM ZYMOTIC DISEASES.

Six of the "seven principal zymotic diseases" are, this year, in evidence.

TABLE 8.

Deaths from Zymotic Diseases in 1908.									
	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping Cough.	Diarrhoea.	TOTAL.	Rate.
Bucklow R. ...	0	1	6	0	2	7	6	22	1·0
Biddulph U. ...	0	0	3	0	7	0	7	17	2·3
Knutsford U. ...	0	0	0	1	3	1	2	7	1·3
Middlewich U. ...	0	0	0	0	0	5	3	8	1·6
Winsford U. ...	0	2	4	0	2	3	10	21	2·0
	0	3	13	1	14	16	28	75	1·5

In previous years the figures have been

1900	..	56	...	1·2
1901	...	61	...	1·3
1902	...	60	...	1·3
1903	...	59	...	1·3
1904	...	69	...	1·5
1905	...	82	...	1·7
1906	...	58	...	1·2
1907	...	32	...	0·6

The average is 1·3 ; thus 1908 is not materially above the average ; although it compares badly with 1907. The deaths from scarlet fever, diphtheria and enteric fever were 14 in 1907 and 17 in 1908. The difference is made by 58 deaths from measles, whooping-cough and diarrhoea in place of 18 only,

INFANTILE MORTALITY.

The total number of infantile deaths in 1908 was 103, compared with 114 in 1907. I have not attempted this year to make the laborious personal investigation into the causes of death which I undertook in 1907, and fully described the results thereof on pages 5 and 14 to 18 of my last Report. I am quite satisfied that the results would have been precisely parallel. The moral to be deduced cries aloud from those pages, and need not be repeated on this occasion.

VACCINATION.

The number of unvaccinated children is increasing; as is to be expected. It is interesting to speculate as to the number of years that may elapse before another epidemic of small-pox; but when it does come there will be some lamentable results to record.

T. W. H. GARSTANG.

January 23rd, 1909.



Winsford Urban District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1908.

Population at Census, 1891, 10,440.

Population at Census, 1901, 10,382.

Decrease, 58.

Estimated Population in middle of 1908, 10,656.

Area of District in Acres (exclusive of area covered by water) $5,780 - 100 = 5,680$.

Total Population at all Ages, 10,382.

Number of Inhabited Houses, 2,167.

Average Number of Persons per House, 4.8.

} At Census of
1901.

Institutions within the District receiving sick and infirm persons from outside the District: Albert Infirmary, in Wharton. (Receives from Middlewich).

Institutions outside the District receiving sick and infirm persons from the District: Union Workhouse, at Northwich. Infectious Diseases' Hospital at Davenham.

Other Institutions, the deaths in which have been distributed among the several localities in the District: Nil.

Birth Rate per 1,000 living, 25.9.

Death Rate per 1,000 living, 15.4.

Death Rate from Seven Principal Zymotic Diseases, 2.0.

Deaths under one year in proportion to 1,000 Births, 156.

Hospital: Davenham.

Workhouse: In Northwich Urban District.

Each birth or death contributes to the Rate 0.09384.

TABLE 9.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1908 and Previous Years.

Name of District, WINSFORD (URBAN).

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		Total Deaths Registered in the District.				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.	Nett Deaths at all Ages belonging to the District.	
				Under 1 Year.		At all Ages.					Number.	Rate.
		Number.	Rate.	Number.	Rate per 1000 Births registered.	Number.	Rate.					
1898	10400	352	33·7	52	148	157	...	...	...	5	161	15·5
1899	10394	341	32·8	42	123	167	...	...	...	...	164	15·8
1900	10388	345	33·2	46	133	162	...	..	...	4	165	15·9
1901	10382	324	31·2	29	89	132	...	1	...	...	132	12·7
1902	10375	316	30·4	40	127	146	...	1	...	...	145	13·9
1903	10370	335	32·3	40	119	135	...	4	1	6	139	13·4
1904	10365	335	32·3	45	134	165	...	8	4	1	162	15·6
1905	10355	313	30·2	36	115	157	...	6	3	2	156	15·1
1906	10445	314	30·1	52	166	140	...	6	5	1	136	13·0
1907	10430	298	28·5	31	104	146	...	5	3	5	143	13·7
Averages for years 1898-1907	10390	327	31·5	41	126	151	...	4	3	3	150	14·5
1908	10656	276	25·9	43	156	160	...	7	3	7	164	15·4

TABLE 10.

(Local Government Board Table II.)

Vital Statistics of separate Localities in 1908 and previous Years.

Name of District, WINSFORD (URBAN).

NAMES OF LOCALITIES.	1.—OVER.				2.—WHARTON.				
	YEAR.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1898	...	6990	241	110	34	3410	111	51	18
1899	...	7015	227	96	30	3379	114	68	12
1900	...	7040	238	104	28	3348	107	61	18
1901	...	7063	228	89	21	3319	96	43	8
1902	...	7092	212	95	24	3283	104	50	16
1903	...	7110	239	96	28	3260	96	43	12
1904	...	7125	219	107	29	3240	116	55	16
1905	...	7100	215	108	25	3255	98	48	11
1906	..	7170	200	80	26	3275	114	56	26
1907	...	7160	211	102	22	3270	87	41	9
Averages of years 1898 to 1907.	}	7086	223	99	27	3304	104	52	15
1908	...	7316	163	104	20	3340	113	60	23

TABLE 11.—(Local Government Board Table III.)

Cases of Infectious Disease notified during the Year 1908.

Name of District, WINSFORD (URBAN).

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.					OVER.	WHARTON.	OVER.	WHARTON.	Total Cases Removed to Hospital.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.						65 and upwards.
Small-pox
Cholera
Diphtheria (including Membranous Croup)	29	13	11	2	2	..	23	6	4	23	
Erysipelas ...	14	1	2	3	5	3	11	3	..	..
Scarlet Fever ...	228	42	173	6	5	..	161	67	57	166	
Typhus Fever ...	1	..	..	..	1	..	1	..	..	1
Enteric Fever ...	4	..	3	..	1	..	4	..	..	2
Relapsing Fever ...	..	..	..	..	..	..	..	..	..	..
Continued Fever ...	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ...	4	..	..	1	3	..	3	1	..	..
Plague ...	..	..	..	..	..	..	..	..	..	..
Totals ...	280	56	189	12	17	3	203	77	61	192	

TABLE 12.

(Local Government Board Table IV.)

Causes of, and Ages at, Death during Year 1908.

Name of District, WINSFORD (URBAN).

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "Residents" belonging to Localities, whether occurring in or beyond the District.		Total Deaths whether of "Residents" or non "Residents" in Public Institutions in the District.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	OVER.	WHAR-TON.	
Small-pox ... ..	..	..	..	..	..	..	..	..	..	..
Measles	2	1	1	..	..	..	..	..	2	..
Scarlet Fever	2	..	1	1	..	..	..	2	..	..
Whooping-cough... ..	3	3	..	..	..	..	..	2	1	..
Diphtheria (including Mem- branous Croup)	4	2	2	..	..	..	..	3	1	..
Croup ... ..	..	..	..	..	..	..	..	..	..	..
Fever { Typhus ... ..	..	..	..	..	..	..	..	..	..	..
{ Enteric ... ..	..	..	..	..	..	..	..	..	..	..
{ Other continued..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	1	..	..	..	..	..	1	..	1	..
Cholera ... ..	..	..	..	..	..	..	..	..	..	..
Plague ... ..	..	..	..	..	..	..	..	..	..	..
Diarrhoea	10	7	3	..	..	..	..	7	3	..
Enteritis	1	..	1	..	..	..	..	1	..	..
Puerperal Fever	1	..	..	..	..	1	..	1	..	..
Erysipelas ... ..	..	..	..	..	..	..	..	..	..	..
Phthisis	10	..	1	2	..	6	1	9	1	..
Other Tubercular Diseases	3	..	..	1	..	2	..	2	1	..
Cancer, Malignant Disease	8	..	..	..	..	4	4	3	5	..
Bronchitis	18	8	2	..	..	1	7	10	8	..
Pneumonia	8	..	3	2	..	1	2	6	2	..
Pleurisy ... ..	..	..	..	..	..	..	..	..	..	..
Other Diseases of Respira- tory Organs	1	1	..	..	..	..	..	1	..	..
Alcoholism ... ..	..	..	..	..	..	..	..	..	..	..
Cirrhosis of Liver } ... ..	..	..	..	..	..	..	..	..	..	..
Venereal Diseases ... ..	..	..	..	..	..	..	..	..	..	..
Premature Birth	5	5	..	..	..	..	..	2	3	..
Diseases and Accidents of Parturition	1	..	..	..	..	1	..	1	..	..
Heart Diseases	26	..	..	..	..	13	13	19	7	..
Accidents	8	..	2	1	..	3	2	7	1	4
Suicides	2	..	..	..	..	2	..	2	..	1
Debility, &c.	4	4	..	..	..	..	..	1	3	..
Convulsions, &c.	10	10	..	..	..	..	..	6	4	..
Cerebral Diseases... ..	8	..	..	..	..	3	5	6	2	1
Old Age	13	..	..	..	..	..	13	6	7	..
Murder	1	..	..	1	..	..	..	..	1	..
Legal Execution	1	..	..	..	1	..	..	..	1	..
All other causes	13	2	1	..	2	4	4	7	6	1
All causes	164	43	17	8	3	41	52	104	60	7

TABLE 13.

(Local Government Board Table V.)

Infantile Mortality during the year 1908.

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

Name of District, WINSFORD (URBAN).

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 One Year.
All Causes.	Certified	12	1			13	1	5	4	2	6	4		1	2	2	3	43
	Uncertified																	
Common Infectious Diseases.	Small-pox																	
	Chicken-pox																	
	Measles											1						1
	Scarlet Fever																	
	Diphtheria : Croup										1						1	2
Diarrhoeal Diseases.	Whooping Cough								1	1		1						3
	Diarrhoea, all forms						1	3	1			1					1	7
	Enteritis, Muco-enteritis, } Gastro-enteritis }																	
	Gastritis, Gastro-intestinal Catarrh }																	
Wasting Diseases.	Premature Birth	4	1			5												5
	Congenital Defects	1				1												1
	Injury at Birth	1				1												1
	Want of Breast-milk																	
	Atrophy, Debility, } Marasmus }	2				2												2
Tuberculous Diseases.	Tuberculous Meningitis																	
	Tuberculous Peritonitis : } Tabes Mesenterica }																	
	Other Tuberculous Diseases }																	
Other Causes.	Erysipelas																	
	Syphilis																	
	Rickets																	
	Meningitis } (not Tuberculous) }																	
	Convulsions	4				4	1	2		1				1	1			10
	Bronchitis							1		1	2	1			1	1	1	8
	Laryngitis																	
	Pneumonia																	
Suffocation, overlaying																		
Other Causes										2					1		3	
		12	1			13	1	5	4	2	6	4		1	2	2	3	43

District of Winsford.

Population estimated to middle of 1908 ... 10656.

Births in the year } legitimate ... 260 Deaths in the year } legitimate infants ... 38
 } illegitimate ... 16 } illegitimate infants ... 5

Deaths from all Causes at all ages, 164.

TABLE 14.

Shewing Births, Birth-rate, Deaths, and General and Zymotic Death-rates, and compared with average of last 10 years; and Deaths in Old Age and Infancy, and percentage of these to Total Deaths; for the Year 1908.

TOTAL.			BIRTH RATE.		DEATH RATE.				DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.	
Births.	Deaths	Zymotic Deaths	Average.	1908.	General.		Zymotic.		At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.
					Average.	1908.	Average.	1908.				
276	164	21	31.5	25.9	14.5	15.4	1.6	2.0	53	43	32	26

TABLE 15.

Births.

OVER.							
	M.	F.	Total.	Rate.	Of which Illegitimate.		
					M.	F.	Total.
1st Quarter	18	32	50	27·7	0	2	2
2nd „	23	23	46	25·2	2	1	3
3rd „	19	17	36	19·5	1	1	2
4th „	16	15	31	16·8	5	0	5
Total ...	76	87	163	22·3	8	4	12
WHARTON.							
1st Quarter	9	11	20	24·3	0	0	0
2nd „	22	13	35	42·0	2	0	2
3rd „	23	17	40	47·5	1	0	1
4th „	13	5	18	21·4	1	0	1
Total ...	67	46	113	33·8	4	0	4
Winsford Total	143	133	276	25·9	12	4	16

TABLE 16.

Shewing Deaths, Death-rates, Deaths from Special Diseases, and Old Age and Infantile Deaths, in the Four Quarters of the Year, 1908.

QUARTER ENDING.	Total Deaths.	Rate.	DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.		Scarlet Fever.	Diphtheria.	Whooping Cough.	Measles.	Diarrhoea.	ZYMOTIC DEATHS.		Phthisis.
			At 65 Years and up- wards.	Under One Year.	At 65 Years and up- wards.	Under One Year.						Total.	Rate.	
March 31	43	16·2	20	11	46	26	0	1	0	1	1	3	1·1	3
June 30	32	12·1	9	7	28	22	0	1	0	1	1	3	1·1	2
Sept. 30	38	14·2	9	15	24	40	0	1	0	0	5	6	2·2	3
Dec. 31	51	19·0	15	10	30	20	2	1	3	0	3	9	3·4	2
Total	164	15·4	53	43	32	26	2	4	3	2	10	21	2·0	10

TABLE 17.

Vaccination.

Year.	Number of Births Registered.	Successfully Vaccinated.	Insusceptible.	Had Small-pox.	Dead. Unvaccinated.	Postponed on Medical Certificate.	Removed, and Traced.	Removed, and Lost.	Conscientious Objections.	Unaccounted for.
1896	472	422	1	—	41	6	—	2	—	—
1897	450	398	—	—	49	2	—	—	—	1
1898	428	379	—	—	43	2	1	—	2	1
1899	421	385	—	—	32	1	2	—	1	—
1900	428	374	—	—	37	13	1	1	2	—
1901	393	361	—	—	22	7	—	1	2	—
1902	404	374	1	—	24	3	—	—	2	—
1903	403	350	—	—	42	4	2	—	5	—
1904	427	373	1	—	41	5	1	1	5	—
1905	403	358	—	—	29	8	2	—	6	—
1906	399	334	—	—	43	9	1	—	12	—
Total in 11 years	4638	4108	3	—	403	60	10	5	37	2
1907	362	305	—	—	28	9	—	1	19	—

TABLE 18.

Shewing position of Winsford in the County in 1907, compared with 35 other Urban Districts.

	Best of 36 Urban Districts	Worst of 36 Urban Districts	Wins- ford Figures.	Place of Wins- ford in the List.
Birth Rate	39·3	13·2	28·5	7
Death Rate	8·0	19·2	13·7	22
Zymotic Death Rate	0·0	3·4	1·0	22
Infantile Mortality	32	187	104	23

TABLE 19.

Notifications of Infectious Diseases.

Year.	Small-pox.	Typhus.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	TOTAL.
1890	—	—	23	9	3	6	1	42
1891	—	—	5	1	5	2	2	15
1892	—	—	14	12	—	17	—	43
1893	3	—	222	3	3	32	6	269
1894	—	—	11	—	3	7	2	23
1895	—	—	31	—	2	9	4	46
1896	—	—	173	4	1	17	2	197
1897	—	—	25	2	1	19	—	47
1898	—	—	11	2	1	7	1	22
1899	—	—	18	2	1	17	1	39
1900	—	—	114	6	4	21	2	147
1901	—	—	65	2	5	18	3	93
1902	—	—	20	8	1	12	3	44
1903	1	—	4	2	—	12	4	23
1904	—	—	20	1	2	20	—	43
1905	—	—	25	2	1	21	2	51
1906	—	—	6	9	2	19	2	38
1907	—	—	34	20	1	16	9	80
Total of 18 years.	4	—	821	85	36	272	44	1262
Average of 18 years	—	—	45	5	2	15	2	70
1908	—	1	228	29	4	14	4	280

TABLE 20.

Deaths from Infectious Diseases.

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping- cough.	Diarrhœa.	TOTAL.	Phthisis.	Puerperal Fever.	Erysipelas.
1890	—	3	6	1	1	1	4	16	11	—	—
1891	—	—	2	—	—	13	7	22	14	—	1
1892	—	1	5	—	5	—	3	14	9	—	1
1893	1	7	1	—	—	—	11	20	12	3	1
1894	—	1	—	1	3	12	2	19	8	—	—
1895	—	3	—	—	9	1	17	30	10	5	—
1896	—	7	3	1	3	—	5	19	21	—	—
1897	—	—	—	—	1	33	11	45	11	—	—
1898	—	2	1	—	—	—	18	21	11	—	—
1899	—	1	—	—	7	3	6	17	13	1	1
1900	—	15	2	—	—	3	6	26	10	—	—
1901	—	2	1	2	—	1	4	10	6	—	2
1902	—	—	4	1	6	5	4	20	9	—	—
1903	—	—	—	—	—	1	8	9	8	1	—
1904	—	—	—	—	—	6	11	17	4	—	—
1905	—	1	—	—	21	1	6	29	5	1	2
1906	—	—	4	1	—	1	7	13	4	1	1
1907	—	—	5	—	1	3	2	11	5	5	1
Total of 18 years	1	43	34	7	57	84	132	358	171	17	10
Average of 18 Years	—	2	2	—	3	5	8	20	10	1	—
1908	—	2	4	—	2	3	10	21	10	1	—

TABLE 21.

Summary of Sanitary Work done in the Nuisance Inspector's Department during the year 1908, in the Urban District of Winsford.

		NUMBER OF		ABATEMENT NOTICES.		NUISANCES ABATED AFTER NOTICE BY	
		Inspections and Observations made.	Defects found.	Informal by Inspector.	Formal by Authority.	Inspector.	Authority.
Dwelling-Houses and Schools.	Foul Conditions	24	14	12	...	12	...
	Structural Defects ... ..	...	...	...	..	...	...
	Overcrowding	10	5	3	2	3	2
	Unfit for Habitation ... ..	...	...	...	...	...	...
	Lodging Houses	24	...	...	..	...	...
	Dairies and Milkshops	86	4	4	...	4	...
	Cowsheds	120	22	11	11	11	5
	Bakehouses... ..	44	...	...	...	...	...
	Slaughter-houses	80	...	...	...	...	...
	Canal Boats	20	5	5	...	5	...
	Ashpits and Privies	866	99	71	28	38	23
House Drainage.	Deposits of Refuse and Manure	22	9	9	...	8	..
	Water Closets	67	12	12	...	12	...
	Defective Traps ... ..	...	...	...	...	...	...
	No Disconnection	354	43	43	..	35	...
	Other Faults ... ..	...	...	...	...	..	...
	Water Supply ... ..	...	...	...	...	...	...
	Pigsties	56	8	8	...	8	...
	Animals improperly kept	12	4	4	...	4	...
	Offensive Trades	6	3	3	...	3	...
	Smoke Nuisances	24	15	15	...	15	...
Other Nuisances	20	14	14	...	14	...	
TOTALS		1835	257	214	41	172	30
							Nos.
Samples of Water taken for Analysis ... ..		...	...	...	...	...	3
<i>Precautions against Infectious Disease.</i>							
Lots of Infected Bedding Disinfected or Destroyed .. ..		...	...	...	...	...	268
Houses Disinfected after Infectious Disease ... ..		...	...	...	...	...	268
Schools Disinfected after Infectious Disease ... ..		...	...	...	...	...	27
Prosecutions for Exposure of Infected Persons or things		...	...	...	...	...	...

THOS. HICKSON,

January 12th, 1909.

Inspector of Nuisances.

TABLE 22.

Annual Report of the Medical Officer of Health for the year 1908, for the Urban District of Winsford, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prosecutions.
Factories (Including Factory Laundries.)	32	...	...
Workshops (Including Workshop Laundries.)	140	...	...
Workplaces ... ..	...	...	...
Total	172	...	...

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects Remedied	Referred to H.M. Inspector.	Number of Prosecutions
<i>Nuisances under the Public Health Acts :—</i>				
Want of Cleanliness ...	2	2	...	...
Want of Drainage of Floors	1	1	...	...
Other Nuisances ...	4	4	...	...
Sanitary Accommodation—				
Insufficient	3	3	...	...
Total	10	10	...	...

3.—HOME WORK.

Wearing Apparel—	Lists received from Employers. Lists.	Contractors.	Workmen.	Inspections of Outworkers' Premises.	Outwork in Infected Premises
Making, &c.	2	2	17	17	1

4.—REGISTERED WORKSHOPS.

Class.	Number.
Total number of Workshops on Register	145

5.—OTHER MATTERS.

Matters notified to H.M. Inspector of Factories :—

Failure to affix Abstract of the Factory and Workshop Act	1
{ Underground Bakehouses	2
{ In use at the end of the year	2

WINSFORD URBAN DISTRICT.

Note.—The matter found on pages 5 to 14, inclusive, is to be read as part of this Report.

Area.—Unchanged.

Population.—An examination of the rate-book in January, 1908, disclosed a list of 2292 houses, of which 72 were empty. If the average number of inmates is 4·8 (as it was at last census) this represents a population of 10656. I am not aware of any better means of calculation than this; and I have therefore adopted this number for 1908; (Over, 7316; Wharton, 3340; total, 10656). It exceeds the estimate of the previous year by 226; and the decennial average by 268; so that if the theory is correct there is a distinct (though small) increase, for the first time for many years.

Tables.—A complete statistical history of the year, and comparison with previous years, may be read, even if no comment were added, in the series of 14 Tables which have been prepared.

The average birth-rate falls from 32·0 to 31·5; the average death-rate from 14·8 to 14·5; the average zymotic death-rate remains 1·6; and the average infantile mortality figure falls from 134 to 126.

The standard of comparison is thus itself slowly becoming improved; and consequently it is more difficult for any particular year to be markedly better than the average.

1908.—The year under review will be found to give a still lower birth-rate, a higher death-rate, a higher zymotic rate; and a higher infant mortality figure; and must therefore be considered an unfavourable year all round.

Births.—Table 15 presents all the details in a form which can be more easily grasped, on sight, than by any lengthy written explanation. Table 9 shows that the number of births (276) is the lowest on record; and the Rate (25·9) is also the lowest. Never before, except 1907, has the number been below 300, or the Rate below 30·0. This Rate is 5·6 below the average; and is now for the first time below the Rate for the whole country (26·2) for the same year. (See Table 1.) If the two Townships which form the Urban District be contrasted, the results are very puzzling; for in Over the Rate has fallen from 29·5 to 22·3; whilst in Wharton it has risen from 26·6 to 33·8; comparing 1908 with 1907.

Illegitimate Infants.—(Table 15). The number born is 16; or 5·8 per cent. of births. There were 5 deaths of illegitimate infants, or 31 per cent.; whilst the 38 deaths of legitimate infants among 260 born form 14·6 per cent. Expressed as infant mortality figures, these would be 312 and 146. Both are far too high.

Deaths.—(Tables 9, 12, 13, 16). The number actually registered was 160; of which 3, occurring in the Albert Infirmary, can be discarded; whilst 3 in the Workhouse, 3 in the Davenham Hospital, and 1 in the Knutsford Gaol have to be added; making a total of 164; and a Rate of 15·4. This is 0·9 above the average; and is 1·6 above the Rate for England and Wales (less the large towns) for 1908.

The seasonal distribution of the deaths, and the gradual building up of the Rate, are shown thus:—

	No. of deaths.	Actual Rate.
January	11	1·03
February	18	1·69
March	14	1·32
April	13	1·22
May	10	0·94
June	9	0·84
July	14	1·32
August	10	0·94
September	14	1·31
October	14	1·31
November	15	1·41
December	22	2·06
	<hr/> 164 <hr/>	<hr/> 15·39 <hr/>

Uncertified Deaths.—None.

Coroner's Inquests.—These were held in 17 cases on residents, besides 1 on a non-resident; viz. :—January 6th, M., 73 years, cerebral effusion, result of a fall; February 3rd, M., 14 months, septic poisoning after scalds; March 1st, M., 2½ years, asphyxia, following scalds in throat; March 30th, F., 57 years, heart disease; April 15th, M., 9 years, shock, following burns; April 15th, M., 36 years, and F., 25 years, injury to brain by rifle bullet; April 27th, M., 50 years, cerebral apoplexy; July 28th, M., 58 years, suicide by hanging; August 1st, M., 15 months, accidentally drowned in pond; September 11th, M., 26 years, crushed by railway waggons; October 12th, F., 11 years, murder; October 27th, M., 30 years, suicide, (insane); November 13th, M., 68 years, natural causes; November 27th, M., 23 years, natural causes; December 15th, M., 56 years, heart; December 19th, F., 78 years, broken thigh from fall.

Comparative Position.—This is for 1907. Winsford was about 18th or 19th in the list of 36 Urban Districts in Cheshire;

an improvement of 1 place on 1906; but still too low to be satisfactory to me.

Infantile Mortality.—The deaths under one year of age were 43, or 2 above the average, (Table 9,) but as they are compared with a smaller number of births, the "mortality figure" is no less than 156; 30 above the average, and 52 above 1907. Table 13 explains the causes of death; from a consideration of which my opinion is that probably 12 or 14 were due to unavoidable causes; but the remainder, 29 to 31, to causes which might have been prevented, or modified, if it were only possible to supply skilled nursing and advice.

Mortality among Old People.—53 deaths at 65 years and upwards; 32 per cent. of all deaths.

Notifications of Infectious Diseases.—(Tables 11 and 19). These numbered no less than 280, (besides 6 of phthisis), which is the largest number on record for any one year. We have to go back fifteen years (to 1893) to find anything approaching it. The principal factor is scarlet fever (228 cases). For the first time a case of typhus fever appears in the list. The average number of notifications is 70.

Isolation Hospital.—This is situated at Davenham, and has nominally accommodation for 34 patients. It is under the control of a Joint Board which represents four Districts with a population of some 60,000 persons. Scarlet fever has been prevalent in the other Districts also; and for the last three months of the year the Hospital has been entirely inadequate to meet the demands made upon it, even though the number of patients received has largely exceeded the nominal accommodation. From the Winsford District 192 cases were removed to Hospital; 151 during the period up to October 24th, when congestion occurred, and 41 from that date up to December 31st. Up to October 24th 151 cases were removed out of 159 removable; afterwards 41 out of 103; or 95 per cent. and 40 per cent. respectively.

Now it is clear that in these two well-marked periods, with all conditions alike save only hospital accommodation, we have an unique opportunity for estimating the effect of prompt removal of patients from the District. Excluding two instances of diphtheria, and one of enteric fever, in each of which two cases occurred simultaneously, and none of which caused any further trouble, the Register shows 15 instances of two cases of scarlet fever in a house, and 2 instances of three cases, during the first long period; and in every instance the cases in each house were notified together, (or within a day or two); whilst in the second and shorter period there was 1 instance of four cases, 2 instances of three cases, and 14 instances of two cases,

in a house; and the occurrence of the cases was often spread over an appreciable period of time, as, for instance, November 27th to December 19th, October 31st to December 5th, November 18th to Nov. 27th, November 9th to November 20th. It is therefore a statistical fact that more cases of scarlet fever occurred in the second period, (in proportion to time,) and also that there were more instances of repeated outbreaks in particular houses, than during the first period.* This does not amount to absolute proof that the Hospital was effective in moderating the incidence of the epidemic on individual houses as well as on the District generally; but it is certainly suggestive in that direction.

The removals to Hospital included 1 case of typhus, 2 of enteric, 23 of diphtheria, and 166 of scarlet fever. Of these 2 diphtheria and 1 scarlet fever proved fatal; a result which proves the value of the Hospital from the point of view of the individual patient. Exactly the same number of deaths (2 diphtheria and 1 scarlet fever) occurred among the smaller number of cases left at home (6 diphtheria and 62 scarlet fever). The fatality therefore was 8·7 per cent. in Hospital, and 33·3 per cent. at home, for diphtheria; and 0·06 per cent. in Hospital, and 1·61 per cent. at home, for scarlet fever. (One of the diphtheria cases died on the day of admission to Hospital, so that the Hospital fatality might well be taken at 4·3 instead of 8·7).

Deaths from Infectious Diseases.—(Table 20). To the 6 deaths alluded to above, there have to be added 2 from measles, 3 from whooping-cough and 10 from diarrhœa; total 21; Rate 2·0. The total is 1 more than the average. The Table also shows in a striking manner that just four-fifths of the zymotic deaths over a period of 19 years were due to diarrhœa, whooping-cough and measles; and one-fifth only to small-pox, scarlet fever, diphtheria, and enteric fever.

There were also 10 deaths from phthisis, and 1 from puerperal fever.

Vaccinations.—By the courtesy of Mr. Pimlott I am enabled to present Table 17; which gives the statistics for the Over Sub-District of the Northwich Union, of which the town of Winsford forms more than three-fourths. In 1907 305 children were vaccinated, out of 334 surviving; or 91 per cent. If we include those temporarily postponed the percentage is 94. This is a decline of 3 per cent. on the figures of the previous eleven years. The next Report will show a great falling off, on

*The figures for January confirm this; viz. :—42 notifications of scarlet fever, 16 removed to Hospital, 1 instance of four, and 8 instances of two, cases in a house; interval in one instance 14 days.

account of the facilities for obtaining exemption which came into existence with 1908. Mr. Pimlott tells me there were 40 exemptions in the first half of 1908!

Measles.—The epidemic of 1907 continued in Wharton for the first Quarter of 1908. Two deaths only occurred, in January and April respectively, at ages 6 months and 14 months; and both from bronchitis rather than from the measles; another illustration of waste of infant life through pure carelessness; for it is easy enough to nurse a child with measles so that it shall escape the sequela of lung trouble. About 90 cases were known to the Inspector, in Wharton, up to May.

Scarlet Fever.—In order to describe this extraordinary epidemic of 228 cases in 1908, it will be necessary to sub-divide it, both as to place and date. As on a previous occasion, it will be convenient to consider the Meadow Bank neighbourhood as a separate area; the remainder of Over can be taken together; and Wharton stands by itself. The classification is as follows:—

	Over.	Meadow Bank.	Wharton	Total.	Removed to Hospital.			
					O.	M.B.	W.	Total.
January ...	1	—	—	1	1	—	—	1
February ..	—	1	—	1	—	1	—	1
March ...	—	3	1	4	—	3	1	4
April ...	3	5	22	30	3	5	21	29
May ...	7	—	21	28	5	—	20	25
June ...	4	1	4	9	4	1	4	9
July ...	6	1	5	12	6	1	5	12
August ...	1	1	4	6	1	1	4	6
September ...	18	2	1	21	18	2	1	21
October ..	18	10	3	31	13	6	—	19
November ...	36	1	5	42	17	1	1	19
December ...	39	3	1	43	20	—	—	20
Totals ...	133	28	67	228	88	21	57	166

It thus appears that the first Quarter was practically clear; the second Quarter shows a sharp epidemic in Wharton; the third Quarter has few cases until September, but that then begins the great epidemic in Over (and practically confined thereto) which rapidly increased during the fourth Quarter, and is still running (at the end of January 1909). The Wharton epidemic was successfully combatted by removal to Hospital; and the Over epidemic did not get out of hand till Hospital accommodation failed in October.

The type of disease is extremely mild; as is proved by the occurrence of only two deaths. The medical attendants believe that there were many more cases than those notified; the others being so slight that they were never recognised. Such cases might act as "carriers," and this would explain the presence of

the disease in every month of the year; coupled with the fact that there has been no serious outbreak since 1900-1901; so that a large amount of susceptible "material" had accumulated. At all events, no other explanation was forthcoming, in spite of continual careful supervision and enquiry.

The result to me personally is a great disappointment. In 6 years, 1902 to 1907, there were 109 cases, or an average of one case every three weeks. Now we get 228 cases, 137 of them in four months. Had these been distributed over the whole period (7 years) it would have been just under one case per week, and this would have meant less interference with education, less difficulty at the Hospital, and less pressure in the Sanitary Department; with an absence of public alarm. Of course cases would not have obliged us by occurring with mathematical regularity; so that my last remark must not be taken too seriously. All the same, it does represent the point of view of the fatalist, and of the ratepayer who objects to hospitals as an attempt to interfere with a law of Nature. But I need hardly say that, as far as we are concerned, Mr. Hickson and I will continue to fight the epidemic day by day with all the means at our disposal; and leave it to the next Annual Report to weigh the comparative success or failure of our efforts.

Whooping-cough.—3 deaths occurred in October and November at the ages of 3, 4, and 6 months, respectively. A few cases were voluntarily notified to the Inspector; and he discovered a few more by enquiry; but there is no means of knowing the true extent or history of the epidemic.

Diphtheria.—This disease was intercurrent with the scarlet fever, 29 cases occurring, or about one of diphtheria to eight of scarlet fever. 23 were removed to Hospital.

	Over.	Meadow Bank.	Wharton	Total.	Removed to Hospital.			
					O.	M.B.	W.	Total.
January	2	—	—	2	2	—	—	2
February	2	1	—	3	2	1	—	3
March	5	—	—	5	5	—	—	5
April	1	1	—	2	1	1	—	2
May	2	—	—	2	—	—	—	—
June	—	—	1	1	—	—	—	—
July	2	3	2	7	2	3	2	7
August	—	—	1	1	—	—	1	1
September	—	—	—	—	—	—	—	—
October	1	—	—	1	1	—	—	1
November	1	—	—	1	1	—	—	1
December	1	1	2	4	—	—	1	1
Totals	17	6	6	29	14	5	4	23

From this tabular statement it will be seen that although diphtheria was present in every month except September, and

the number of cases was the largest (Table 19) on record, yet there was no particularly heavy incidence on any one point at any one time. Four cases were fatal; two among the 23 in Hospital (including one moribund on admission), and two among the 6 kept at home.

Here again the most careful enquiries which could be made entirely failed to reveal the cause or causes of the continued occurrence of scattered cases. The most serious point is that 1907 with 20 cases, and 1908 with 29 cases, mark a very notable increase over any previous two years: in fact no other year since 1892 has reached double figures.* In this disease, more than almost any other, danger exists from "carrier" cases; and we have, in a District of this size, no machinery and no staff to cope with such a problem as this consideration presents. If we group the last three years together, we have had 58 cases, with 13 deaths.

Typhus Fever.—One case, notified September 7th. The patient was a woman, 64 years of age, and was removed to Hospital September 8th, and discharged therefrom cured October 16th. The house was disinfected and cleaned throughout twice over; bedding was destroyed; and contacts were quarantined for 14 days. The origin of the disease was not traced. The woman had come home from Southport 18 days previously, and had been in bed, and under medical care, during that period. All knowledge of her was denied at the address at Southport which she and her daughter both declared they had stayed at. This is such a curious circumstance that it rouses a lively suspicion. No other cases occurred; indeed this is the first case I have been brought into contact with during 14 years as Medical Officer of Health, and 30 years as medical practitioner. Great praise is due to the Hospital Staff, both medical and nursing.

Incidentally also this is important evidence as to the value of having an Isolation Hospital.

Enteric Fever.—Two cases, (brothers, 12 and 13 years of age,) occurred June 22nd; and were treated at home. Two cases, (father and son, 45 and 8 years,) occurred September 14th; and were removed to Hospital. The boy was discharged on November 11th; but the man, owing to relapses and complications, has only just been discharged, January 20th, 1909. No information was ever obtained which could throw any certain light on the causes of these cases.

Influenza.—1 death, in March; M., 74 years.

*11 Cases have been notified during January, 1909, of which only 5 have been removed to Hospital. The amount of infection remaining in the town is therefore much greater than usual; and I look forward with some apprehension to 1909.

Diarrhœa.—This is a very unsatisfactory subject. Table 13 contains 7 deaths, all between 1 month and 12 months of age; and there were 3 more at 13, 16 and 17 months respectively. In Over, 1 case occurred in March, and 2 each in July, August, and October. In Wharton 1 case was in May, 1 in September, and 1 in December. The cases in March, May, and December, all single cases, hardly seem to me to be worth including as "epidemic" cases.

1 death from *enteritis*, at 4 years of age, in November, is tabulated separately.

Puerperal Fever.—4 cases occurred; 1 death. All were carefully investigated, but in none of them was any reason found to warrant blame being laid on the midwife in attendance. In each case the condition of the house and patient was held to be sufficient explanation.

Erysipelas.—14 cases; 0 deaths.

Phthisis.—6 voluntary notifications received. 10 deaths. Rate 0·9. This is the average number of the last 18 years; but is above the average of the last 7 years, which is only 6. The deaths in 1908 include 7 males and 3 females, at ages from 4 years to 68 years; average 36 years.

Other Tuberculous Diseases.—3 deaths. Organs affected: intestines, pleura, larynx. Ages, 7, 58, 63 years.

Cancer.—8 deaths; Rate 0·75. 3 males, 5 females. Throat, 3 cases; breast, 2; uterus, liver, intestines, 1 each. Ages, 48 to 78 years; average 61 years.

Respiratory Diseases.—27 deaths; Rate 2·5.

Heart Diseases.—26 deaths; Rate 2·4.

Violence.—12 deaths. See "Coroner's Inquests" above; and add 1 execution at Knutsford Gaol.

Systematic Inspection.—This has not been overlooked, but it must be admitted that it has had to give way to the more urgent duties connected with infectious diseases.

Insanitary Property; Dairies and Cowsheds; Slaughter Houses; Factories and Workshops; Disinfection; Excrement Disposal; and Scavenging.—All these matters are very carefully reported on in the Inspector's Report, which I have much pleasure in appending.

Schools.—Nearly all the Schools in the District were specially visited, and the scholars examined, at one time or another, in course of efforts to discover the cause of various groups of cases of infectious disease; but no definite results were obtained.

Local Government Board Memorandum of Instructions, November, 1908.—In order to comply with these instructions, it is necessary to mention certain further matters, though they are mainly such as have a permanent character, and, having been discussed in previous Reports, have not been hitherto considered to require annual mention.

Character of District. Occupations of Inhabitants.—Mainly agricultural. A short length of the river Weaver is lined with Salt-works.

House-accommodation.—The population is practically stationary; so there is no undue pressure. Surroundings of houses are generally satisfactory. There is plenty of air-space, as many of the houses have unoccupied land in their rear, and there is nowhere any serious congestion.

Water Supply.—This is from springs, of good quality, free from liability to pollution, see Annual Report, 1906, page 87.

Milk Supply.—Several large farms and many smaller ones. Condition of cow-sheds greatly improved; some few are still unsatisfactory. Of tuberculous milk we have no knowledge.

Other Foods.—Except for occasional hawkers' carts which sell cheap meat of doubtful quality, (coming from outside the District,) we have no trouble.

Sewers and Drains.—Condition good. Most of town adequately supplied. Adjoining area (under rural conditions) dealt with from time to time, as demand arises, and as found practicable.

Pollution of Rivers.—The river Weaver receives pollution from Salt-works, and no doubt some domestic drainage; but it passes into another District where the conditions are very much worse, and no complaint has ever been received.

Tuberculosis.—Voluntary notification in force since 1901. 45 cases notified in 8 years; during which time there have been 51 deaths. No hospital accommodation. No action in respect of known cases. Disinfection of houses after deaths.

Adoptive Acts.—The Notification of Births Act, and the Public Health Acts Amendment Act, have not yet been fully considered. Anthrax, Glanders, and Hydrophobia, (in man,) have been added to the Notification Act.

Conclusion.—A personal reference to the Inspector is bare justice to him, and cannot adequately discharge my own obligation. He has worked Sundays and Week-days, night and day, as required by the special necessities of this unfortunate year; and his work is always marked by conscientious thoroughness.

T. W. H. GARSTANG,

February 4th, 1909.

D.P.H. Vict.

ISOLATION HOSPITALS.

EAST HAM, 1907.

Dr. Sowden, Medical Officer of Health for East Ham, referring in his Annual Report to the fact that though the number of cases of infectious diseases in any town varies somewhat each year, when the figures for a number of years are taken the attack rate per 1,000 of population shows no real diminution. It becomes necessary, therefore, he thinks, to inquire into this, and to ask how it is that despite the large sums of money spent on disinfection and on isolation hospitals, these measures have apparently failed to effect any reduction in the prevalence of infectious diseases.

This question has been receiving attention during the past few years in many parts of the country, and figures have been produced in support of a statement that, chiefly as regards scarlet fever, towns not providing isolation hospital accommodation for this disease have either no more or even have less cases per 1,000 of population, than towns where a very large proportion of these cases are admitted to hospital.

Dr. Sowden remarks that while it has been assumed from this that isolation hospitals are a failure, probably what such statistics really prove is that they have little or no bearing on the case at all, and the real reason for the continued prevalence of infectious diseases must be differently explained. He is inclined to the opinion that the ordinary recognized cases of infectious disease, whether removed to hospital or treated at home, are not chiefly concerned in this continued prevalence, **but that the greatest sources of infection are the mild and unrecognized cases, coupled with compulsory school attendance.**

It is no uncommon occurrence to find a child in school desquamating from scarlet fever, and yet the symptoms have been so mild that the parents have been quite unaware of the illness; or a child with a mild sore throat or slight running from the nose is occasionally found to be really suffering from unrecognized diphtheria, and has been distributing widely the bacteria of this disease. The potentialities for evil of such cases are enormous. The number of these, no doubt, not only varies widely in different schools and localities, but the other factors on which infection depends, such as susceptibility to infection, degree of overcrowding, etc., also vary, and so tend to make comparison between different towns exceedingly difficult.

If these views as to the chief causes of this continued prevalence are correct, the next step is to suggest a remedy. Dr. Sowden thinks the new Act dealing with the medical inspection of school children will, if thoroughly carried out, tend to discover many of these mild, but to the community, dangerous cases of infectious disease, and therefore, will ultimately tend to do much to lessen their prevalence.

There are, however, other points which should be mentioned in discussing the value or otherwise of isolation hospitals, apart from any statistics as to their effect on the community in limiting the prevalence of disease. **These include the benefit of removing our children from dirty surroundings to the skilled nursing and proper diet of the hospital ward.** Further, as Dr. Sowden points out, the bread-winner is able to continue at work.

INSPECTOR'S REPORT.

I respectfully submit my third Annual Report, being a resume of work done in this Department during the year ending December 31st, 1908.

Owing to the exceptionally severe epidemic of scarlet fever, which has continued without intermission in various parts of the District during the year, the work consequent on the large number of cases, which have occurred, has made so great a demand on my time and energies as to leave only a small margin for the ordinary duties of the office.

Dairies and Cowsheds.—120 Notices to cleanse and lime-wash premises, etc., have been served on owners or occupiers in the District. On subsequent inspection it was found generally that the work had been satisfactorily carried out. In a few cases of default Special Notices were served, which secured immediate compliance with the Regulations. During the summer months, Dr. Garstang and myself made special visits to most of the premises, particulars of these visits being noted. In cases of defect the matters requiring attention were reported to the Council, and formal Notice was served on the occupiers. In some instances the necessary work has been carried out, but at several premises extensive structural alterations are essential, and these premises are still under observation.

Slaughter-houses.—There are 21 Slaughter-houses in use in the District, 20 being licensed and 1 being registered. The licenses have been renewed during the year on application being made to the Council, except that 1 Slaughter-house has been removed from the register, the owner not having applied for a renewal of the license. These places have been frequently visited, and any defects noted have been satisfactorily dealt with.

Common Lodging-houses.—There are only two on the register, both being in Over. The premises have been regularly visited, and observed to be clean and well conducted.

Vans used as Dwellings.—24 of these travelling dwellings have been inspected at different times on the Fair Ground at Over and in other parts of the District. The Vans generally were found to be clean and in good order. No instances of overcrowding or other infringements were noted, and no cases of infectious disease occurred.

Factories and Workshops.—These places have been visited when opportunity has made it possible. In all cases where

defects or nuisances have been discovered, these have been remedied on informal request being made to the owner. A summary of visits, and matters dealt with, appear in the Table of Inspections under the above heading.

Home Work.—There is still only one Factory on the register where Home Work is given out, viz. :—Messrs. Crook & Sons, Clothing Factory, Siddorn Street. Two lists have been supplied by this firm, one in February containing eight names, and one in August containing nine names. The homes where the work is carried on have been regularly kept under observation. In one house a case of infectious disease occurred; the matter was promptly and effectually dealt with.

Privy Middens.—The number in the District is 1370. This form of closet is gradually being reduced. During the year 70 Privy Middens have been converted into Pail Closets, and 7 substituted by Water Closets, after Notice being served on the owners. The Privies in the District have been scavenged by contract four times during the year, the contents being distributed on open land, well removed from inhabited parts of the community.

Peat Pails.—The number now in use is 394, being an increase of 70 for the year.

Water Closets.—The number in use in the District is 619, being an increase of 26 for the year; 19 are attached to New Houses, and 7 substituted for Privy Middens. Any defects or nuisances having come under observation have been remedied on informal Notice being given.

Overcrowding.—5 cases of Overcrowding have been dealt with during the year, and the nuisance abated.

Abatement of Nuisances.—255 formal and informal Notices to abate nuisances have been served. Special measures have been adopted in cases of default. It must, however, be noted that a large percentage of nuisances discovered in the District are abated on informal request being made.

Disinfecting.—268 houses in the District, where infectious disease has occurred, have been disinfected, also the bedding, clothing, etc., found to have been in contact with infectious patients, have been disinfected or destroyed. 9 Schools in the District have been disinfected three times, and one School once, after infectious disease.

Infectious Disease.—As in previous years, all cases of infectious disease, on being notified, have received prompt attention. The infected house has been personally visited, the circumstances surrounding the case investigated, and details as

to the sanitary condition of the premises taken. Whenever possible the patient has at once been removed to Hospital, and the sick-room, bedding, etc., disinfected. On the Over side of the District some of the patients at least are compelled to be treated under conditions, which make effectual isolation impossible, and notwithstanding a rigorous supervision, contact with the infected in such cases cannot be avoided.

House to House Inspection.—Over 40 houses were systematically inspected by Dr. Garstang and myself during the month of October, at Meadow Bank, Mill Farm, and Bradford Wood Farm, the result of these inspections being that extensive improvements are in progress in connection with the property. Further work in this important direction, for reasons previously given, has been a practical impossibility, except that inspections have been made, and observations taken, at houses where cases of infectious disease have occurred. Among other matters discovered and dealt with in consequence of these visits were:—New drains, with water-sealed gullies adjusted, at 14 cottages; overcrowding at 3 cottages; foul conditions at 14 cottages; a number of cottages with defective privy middens, ash-pits, and other nuisances, and a few cottages with faulty or undrained pig-sties. There are also many other matters in connection with these visits which are still under observation.

Canal Boats.—There are only 8 registered; they are regularly inspected; and are satisfactory.

THOS. HICKSON, A.R.San.I.,

Inspector.

1st February, 1909.

Bucklow Rural District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1908.

Population at Census, 1891, 20,382.

„ „ „ 1901, 19,850. (N.B.—Area diminished).

Estimated Population in middle of 1908, 22,762.

Ditto, less Public Institutions, 21,770.

Area of District in Acres (exclusive of area covered by water) 57,642—544=57,098.

Number of Inhabited Houses, 4,115.	} At Census of
Average Number of Persons per House, 4·8.		1901.

Institutions within the District receiving sick and infirm persons from outside the District: St. Anne's Home, Dunham Massey, (Manchester Consumption Hospital). Baguley Sanatorium for General Infectious Diseases, and Baguley Temporary Small-pox Hospital. (Manchester Corporation). David Lewis Epileptic Colony, Marthall.

Institutions outside the District receiving sick and infirm persons from the District: Union Workhouse, Knutsford. General Hospital, Altrincham. Manchester Royal Infirmary. Monsall Hospital.

Other Institutions, the deaths in which have been distributed among the several localities in the District: Nil.

Birth Rate per 1,000 living, 21·2.

Death Rate per 1,000 living, 11·1.

Death Rate from Seven Principal Zymotic Diseases, 1·0.

Deaths under one year in proportion to 1,000 Births, 100.

Hospital.	} See above.
Workhouse.	

Each birth or death contributes to the Rate 0·04593.

TABLE 23.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1908 and Previous Years.

Name of District, BUCKLOW (RURAL).

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		Total Deaths Registered in the District.				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.	Nett Deaths at all Ages belonging to the District.	
		Number.	Rate.	Under 1 Year.		At all Ages.					Number.	Rate.
				Number.	Rate per 1000 Births registered.	Number.	Rate.					
1898	22722	541	23·8	54	100	273	...	...	..	...	267	11·8
1899	23359	535	22·9	69	129	336	...	...	...	...	333	14·3
1900	19473	425	21·8	61	143	270	...	..	...	...	289	14·8
1901	19850	435	21·9	56	129	260	...	5	...	...	278	14·0
1902	20105	440	21·9	32	73	228	...	7	7	22	235	11·7
1903	20416	475	23·3	54	114	272	...	25	19	20	273	13·4
1904	20700	455	21·9	39	86	262	...	18	16	18	242	11·6
1905	21145	415	19·6	41	99	239	...	21	14	21	254	12·0
1906	21660	474	21·9	55	116	255	...	19	17	31	261	12·0
1907	22000	407	18·5	33	81	249	...	21	18	21	248	11·3
Averages for years 1898-1907	21143	460	21·8	49	107	264	...	17	15	22	268	12·7
1908	21770	461	21·2	46	100	245	...	30	24	29	242	11·1

TABLE 24.—(Local Government Board Table II.)

Vital Statistics of separate Localities in 1908 and previous Years.

Name of District, BUCKLOW (RURAL).

NAMES OF LOCALITIES.	1.—ALTRINCHAM.				2.—LYMM.				3.—KNUTSFORD.				4.—WILMSLOW.				5.—SALE.			
	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1898	10800	233	115	24	3338	80	35	8	3653	99	39	8	4931	129	78	14	4931	129	78	14
1899	11267	269	155	33	3338	69	41	8	3653	81	52	13	5101	116	85	15	5101	116	85	15
1900	7263	157	101	22	3350	66	56	10	3600	80	49	11	5200	122	83	18	5200	122	83	18
1901	7608	161	105	26	3236	82	49	7	3635	75	42	11	5371	117	82	12	5371	117	82	12
1902	7798	170	89	9	3217	69	41	5	3632	86	41	8	5458	115	64	10	5458	115	64	10
1903	7116	173	98	25	2692	71	31	6	3630	70	44	4	3416	65	39	7	3416	65	39	7
1904	7260	163	88	17	2670	63	31	2	3625	74	39	2	3500	61	36	5	3500	61	36	5
1905	7350	159	82	18	2850	37	35	2	3724	66	52	8	3500	49	34	4	3500	49	34	4
1906	7500	167	87	18	2900	52	30	6	3750	83	35	6	3540	60	38	6	3540	60	38	6
1907	7650	156	68	6	2925	46	41	7	3765	64	41	6	3590	46	38	4	3590	46	38	4
Averages of years 1898 to 1907.	8161	181	99	20	3052	63	39	6	3673	78	43	8	4361	88	58	10	4361	88	58	10
1908	7800	184	83	15	2940	44	29	2	3590	76	49	7	3360	57	28	3	3360	57	28	3

TABLE 25.—(Local Government Board Table III.)

Cases of Infectious Disease notified during the Year 1908.

Name of District, BUCKLOW (RURAL).

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.						Altrincham.	Lymm.	Knutsford.	Wilmslow.	Sale.	Altrincham.	Lymm.	Knutsford.	Wilmslow.	Sale.	Total Cases removed to Hospital.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.											
Small-pox ...	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Cholera ...	..	...	...	...	...	...	..	...	...	...	...	..	...	...	...	...	..	...
Diphtheria (including Membranous Croup)	25	5	18	1	1	1	13	4	3	2	3	13	4	3	2	3	3	20
Erysipelas ...	10	1	...	...	8	1	7	...	1	1	1	...	...	...	...	...	...	...
Scarlet Fever ...	65	11	43	6	5	...	39	6	13	4	3	33	5	8	1	1	48	...
Typhus Fever ...	..	...	...	...	..	...	..	...	...	...	...	..	...	...	...	...	..	...
Enteric Fever ...	2	...	1	...	1	...	2	...	...	...	...	..	...	...	...	...	..	...
Relapsing Fever ...	..	...	...	...	...	...	..	...	...	...	...	..	...	...	...	...	..	...
Continued Fever ...	..	...	...	...	...	...	..	...	...	...	...	..	...	...	...	...	..	...
Puerperal Fever ...	2	...	...	...	2	...	1	...	...	...	1	...	...	...	...	1	1	...
Plague ...	..	...	...	...	...	...	..	...	...	...	...	..	...	...	...	..	...	...
Totals ...	105	17	62	8	17	1	63	10	17	7	8	43	9	10	2	5	69	..

TABLE 26.

(Local Government Board Table IV.)

Causes of, and Ages at, Death during Year 1908.

Name of District, BUCKLOW (RURAL).

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "Re- sidents" belonging to Lo- calities, whether occurring in or beyond the District.					Total Deaths whether of Residents or non "Residents" in Public Institu- tions in the District.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	ALTRIN- CHAM.	LYMM.	KNUTS- FORD.	WILM- SLOW.	SALE.	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	2	1	...	1	...	...	...	...	...	1	...	1	...
Scarlet Fever	1	...	...	1	...	...	...	1	...	...	...	...	8
Whooping-cough... ..	7	2	5	...	...	...	...	...	1	1	...	5	1
Diphtheria (including Mem- branous Croup)	6	...	2	4	...	...	...	3	1	...	1	1	7
Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Enteric ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Rheumatic	1	...	1	...	...	...	...	1	...	...	...	...	...
Epidemic Influenza	1	...	...	...	...	...	1	1	...	...	...	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea	6	6	...	...	...	...	...	3	...	...	...	3	...
Enteritis	1	...	...	...	...	1	...	...	...	1	...	...	...
Puerperal Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis	10	...	...	...	3	7	...	5	...	...	3	2	2
Other Tubercular Diseases	2	...	...	...	...	1	1	...	...	1	...	1	...
Cancer, Malignant Disease	21	...	1	...	...	8	12	5	5	6	3	2	3
Bronchitis	16	2	3	...	...	2	9	4	3	5	2	2	...
Pneumonia	20	8	1	...	2	6	3	6	1	1	...	12	1
Pleurisy	1	...	...	...	...	1	...	...	...	1	...	...	...
Other Diseases of Respira- tory Organs ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver {	5	...	...	...	...	4	1	1	...	...	...	4	...
Venereal Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Premature Birth	6	6	...	...	...	...	...	3	...	1	1	1	...
Diseases and Accidents of Parturition ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Heart Diseases	33	1	...	...	1	15	16	9	3	12	8	1	2
Accidents	7	1	1	1	...	2	2	2	2	1	...	2	...
Suicides ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Debility, &c.	13	13	...	...	...	...	...	3	...	5	2	3	...
Convulsions, &c.	5	2	3	...	...	...	...	3	...	1	...	1	...
Cerebral Diseases... ..	21	2	...	1	1	10	7	6	2	4	2	7	1
Old Age	31	...	...	...	...	...	31	16	9	1	4	1	...
All other causes	26	2	2	1	...	11	10	11	2	7	2	4	4
All causes	242	46	19	9	7	68	93	83	29	49	28	53	29

TABLE 27.

(Local Government Board Table V.)

Infantile Mortality during the year 1908.

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

Name of District, BUCKLOW (RURAL).

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 One Year.
		All Causes.	{ Certified	13	1	3	2	19	5	2	4	4	1	3	1	2	4	1	...	46
	{ Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Common Infectious Diseases.	Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles ... ..	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1
	Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria : Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoeal Diseases.	Whooping Cough	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	2
	Diarrhoea, all forms	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	2
	Enteritis, Muco-enteritis, Gastro-enteritis	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	2
Wasting Diseases.	Gastritis, Gastro-intestinal Catarrh	...	...	1	...	1	...	...	...	...	...	...	...	...	1	...	...	2
	Premature Birth	5	...	...	...	5	1	...	...	...	...	...	...	...	...	...	...	6
Tuberculous Diseases.	Congenital Defects	3	1	1	...	5	...	...	...	...	...	...	...	...	...	...	...	5
	Injury at Birth	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
	Want of Breast-milk	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes.	Atrophy, Debility, Marasmus	1	...	...	...	1	1	2	2	1	...	...	1	...	...	...	...	8
	Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tuberculous Peritonitis : Tabes Mesenterica	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes.	Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Syphilis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis (not Tuberculous)	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	2
	Convulsions	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	2
	Bronchitis ... ..	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	2
	Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
	Pneumonia	1	...	1	...	2	...	1	...	2	...	...	1	...	1	1	...	8
Suffocation, overlaying	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	
Other Causes	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	
		13	1	3	2	19	5	2	4	4	1	3	1	2	4	1	...	46

District of Bucklow.

Population estimated to middle of 1908 ... 21770.

Births in the year	{ legitimate ...	449	Deaths in the year	{ legitimate infants ...	44
	{ illegitimate ...	12		{ illegitimate infants ...	2

Deaths from all Causes at all ages, 242.

TABLE 28.

Shewing Births, Birth-rate, Deaths, and General and Zymotic Death-rates, and compared with average of last 5 years; and Deaths in Old Age and Infancy, and percentage of these to Total Deaths; for the Year 1908.

RURAL PART OF SUB-DISTRICT OF	TOTAL.			BIRTH RATE.		DEATH RATE.				DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.	
	Births.	Deaths	Zymotic Deaths	Average 5 years.	1908.	General.		Zymotic.		At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.
						Average 5 years.	1908.	Average 5 years.	1908.				
Altrincham.	180	83	7	21.9	23.1	11.6	10.6	1.2	0.9	32	15	38	18
Lymm ...	44	29	2	20.3	15.0	11.7	9.9	0.5	0.7	15	2	52	7
Knutsford...	76	49	2	19.6	21.2	11.4	13.7	0.3	0.6	20	7	41	14
Wilmslow ...	57	28	1	16.0	17.0	10.5	8.3	0.4	0.3	15	3	54	11
Sale ..	104	53	10	26.4	25.5	15.3	13.0	1.4	2.3	11	19	21	36
Total ...	461	242	22	21.1	21.2	12.1	11.1	0.8	1.0	93	46	38	19

TABLE 29.—Births 1908.

Rural part of Sub-District of	1st Quarter.			2nd Quarter.			3rd Quarter.			4th Quarter.			Total.							
	M.	F.	Total.	Rate.	M.	F.	Total.	Rate.	M.	F.	Total.	Rate.	M.	F.	Total.	Rate.				
Altrincham ...	19	25	44	22·6	23	22	45	23·2	24	29	53	27·0	25	13	38	19·3	91	89	180	23·1
Lymm ...	5	7	12	16·4	6	5	11	15·0	4	7	11	14·9	5	5	10	13·5	20	24	44	15·0
Knutsford ...	8	4	12	13·4	10	9	19	21·2	9	14	23	23·3	10	12	22	24·3	37	39	76	21·2
Wilmslow ...	5	10	15	17·9	2	11	13	15·5	8	7	15	17·7	5	9	14	16·5	20	37	57	17·0
Sale ...	16	19	35	34·4	11	8	19	18·7	13	13	26	25·3	11	13	24	23·3	51	53	104	25·5
Total ...	53	65	118	21·8	52	55	107	19·7	58	70	128	23·4	56	52	108	19·7	219	242	461	21·2

TABLE 30.
Illegitimate Infants.

RURAL PART OF SUB-DISTRICT OF	Legitimate.		Illegitimate.		Percentage of Deaths under 1 Year to Births.	
	Births.	Deaths under 1 Year.	Births.	Deaths under 1 Year.	Legitimate.	Illegitimate.
Altrincham .	177	15	3	0	8·5	0·0
Lymm	41	2	3	0	4·9	0·0
Knutsford ...	76	7	0	0	9·2	0·0
Wilmslow ...	53	3	4	0	5·7	0·0
Sale ...	102	17	2	2	16·7	100·0
Total ...	449	44	12	2	9·8	16·6

TABLE 31.

Deaths 1908.

Rural part of Sub-District of	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Total.	
	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.
Altrincham	28	14·4	20	10·3	17	8·7	18	9·2	83	10·6
Lymm ...	14	19·1	8	10·9	4	5·4	3	4·1	29	9·9
Knutsford ...	12	13·4	10	11·2	12	13·3	15	16·6	49	13·7
Wilmslow .	11	13·1	6	7·2	1	1·2	10	11·8	28	8·3
Sale ...	18	17·7	7	6·9	11	10·7	17	16·5	53	13·0
Total ...	83	15·3	51	9·4	45	8·2	63	11·5	242	11·1

TABLE 32.
Coroner's Inquests.

DATE.	SEX	AGE.	WHERE HELD.	WHERE BELONGED TO.	VERDICT.
NON-RESIDENTS.					
Jan. 10	M	45	Mere	Manchester	Run over by threshing machine
Feb. 22	M	39	Mere	Altrincham	Found dead from exposure
Mar. 17	F	37	Dunham Massey	Altrincham	Suicide by drowning in Canal (insane)
May 28	M	19	Dunham Massey	Altrincham	Found dead in road, after fall from bicycle; heart disease
July 14	M	48	Northern Etchells	Stockport	Suicide on railway
July 17	M	17	Northenden	Manchester	Drowned in river
Aug. 5	M	35	Warburton	Bootle	Broken neck from fall
Aug. 24	M	28	Timperley	Liverpool	Run over by train
Sep. 25	F	20	Dunham Massey	Altrincham	Suicide by poisoning
RESIDENTS.					
Jan. 5	M	1 mo.	Carrington	Carrington	Overlaid
Jan. 17	F	51	Northenden	Northenden	Cerebral hæmorrhage
Jan. 27	M	2	Ringway	Ringway	Accidentally drowned in brook
Mar. 22	M	68	Baguley	Baguley	Hydrothorax
Aug. 6	F	53	Manchester	Timperley	Heart disease
Sep. 2	F	2 days	Dunham Massey	Dunham Massey	Heart failure
Sep. 10	M	11 wks.	Northenden	Northenden	Convulsions
Oct. 20	F	40	Styal	Styal	Heart disease
Oct. 30	M	32	Baguley	Baguley	Run over by cart
Nov. 13	F	17	Northenden	Northenden	Suicide by hanging (insane)
Dec. 22	M	14	Partington	Partington	Fractured skull, struck by machinery in paper-mill
Dec. 28	F	82	Pickmere	Pickmere	Weak heart, shock after fall

TABLE 33.

Cases of Infectious Diseases notified, 1908, arranged according to Localities.

	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	Total.		Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	Total.
Ashley								Agden							
Dunham Massey	10	7		4			21	Aston-by-Budworth	3						3
Ringway			2				2	Bollington	2	4					6
Timperley	1	29	6	3	1		40	High Legh	1						1
								Millington							
<i>Altrincham</i>								Partington							
<i>District</i>	1	39	13	2	7	1	63	Warburton							
								<i>Lymm District</i>	6	4					10
Bexton								Mobberley	4						4
Marthall		6					6	Northen Etchells		1		1			2
Mere					1		1	Styal			1				1
Ollerton		1					1	<i>Wilmslow District</i>	4	2		1			7
Peover Inferior								Baguley	2	1					3
Peover Superior	3						3	Carrington			1				1
Pickmere	1						1	Northenden	1	1		1	1		4
Plumbley								<i>Sale District</i>	3	3		1	1		8
Rostherne			3				3	<i>SUMMARY :</i>							
Tabley Inferior								<i>Altrincham</i>	1	39	13	2	7	1	63
Tabley Superior	1						1	<i>Lymm</i>		6	4				10
Tatton								<i>Knutsford</i>		13	3		1		17
Toft		1					1	<i>Wilmslow</i>		4	2		1		7
								<i>Sale</i>		3	3		1	1	8
<i>Knutsford District</i>	13	3		1			17	<i>Bucklow District</i>	1	65	25	2	10	2	105

TABLE 34.

Shewing Population, Census, 1901; Total Deaths, Deaths from Special Diseases, and at Special Ages, in entire Sanitary District, the Registration Sub-Districts, and the individual Townships, in 1908.

POPULATION CENSUS 1901.	REGISTRATION DISTRICTS AND TOWNSHIPS.	TOTAL DEATHS.	DEATHS FROM SPECIAL DISEASES.									TWO GROUPS OF AGES.		
			Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping Cough.	Diarrhoea.	Total Zy- motic.	Phthisis.	Erysipelas.	Puerperal Fever.	At 65 Years and Upwards.	Under 1 Year.
424	Ashley ...	4	...	...	...	...	...	1	1	...	...	...	1	2
2644	Dunham Massey ...	26	...	2	...	...	...	...	2	1	...	...	10	4
491	Ringway ...	5	...	...	...	...	...	...	...	...	...	...	3	...
3215	Timperley ...	48	1	1	...	...	...	2	4	4	...	...	18	9
6774	<i>Altrincham District</i>	83	1	3	...	...	...	3	7	5	...	...	32	15
110	Agden ...	1	...	...	...	...	...	...	...	...	...	...	1	...
423	Aston-by-Budworth ...	2	...	...	...	...	...	...	...	...	...	...	2	...
215	Bollington ...	1	...	...	...	...	...	...	...	...	...	...	1	...
794	High Legh ...	6	...	...	...	1	...	1	...	...	...	...	1	2
225	Millington ...	6	...	1	...	...	...	1	...	...	...	...	3	...
552	Partington ...	5	...	...	...	...	...	...	...	...	...	...	1	...
403	Warburton ...	8	...	...	...	...	...	...	...	...	...	...	6	...
2722	<i>Lymm District</i>	29	...	1	...	...	1	...	2	...	...	...	15	2
124	Bexton ...	1	...	...	...	...	...	...	...	...	...	...	1	...
244	Marthall ...	2	...	...	...	...	1	...	1	...	...	...	1	...
437	Mere ...	5	...	...	...	...	...	...	...	...	...	...	2	2
270	Ollerton ...	4	...	...	...	1	...	1	...	...	...	...	2	...
144	Peover Inferior ...	2	...	...	...	...	...	...	...	...	...	...	1	...
549	Peover Superior ...	10	...	...	...	...	...	...	...	...	...	...	5	1
203	Pickmere ...	2	...	...	...	...	...	...	...	...	...	...	1	...
333	Plumbley ...	4	...	...	...	...	...	...	...	...	...	...	1	1
413	Rostherne ...	4	...	...	...	...	...	...	...	...	...	...	1	2
129	Tabley Inferior ...	1	...	...	...	...	...	...	...	...	...	...	...	...
493	Tabley Superior ...	6	...	...	...	...	...	...	...	...	...	...	3	1
120	Tatton ...	2	...	...	...	...	...	...	...	...	...	...	...	...
176	Toft ...	6	...	...	...	...	...	...	...	...	...	...	2	...
3635	<i>Knutsford District</i>	49	...	...	...	1	1	...	2	...	...	...	20	7
1353	Mobberley ...	14	...	...	...	...	...	...	...	1	...	...	11	1
738	Northern Etchells ...	5	...	...	...	...	...	...	...	1	...	...	2	1
1153	Styal ...	9	...	1	...	...	...	1	1	...	...	...	2	1
3244	<i>Wilmslow District</i> ...	28	...	1	...	...	...	...	1	3	...	...	15	3
834	Baguley ...	9	...	...	...	...	...	1	1	2	...	...	4	1
514	Carrington ...	6	...	1	...	...	...	...	1	...	...	...	1	3
2127	Northenden ...	38	...	...	...	1	5	2	8	...	...	...	6	15
3475	<i>Sale District</i>	53	...	1	...	1	5	3	10	2	...	...	11	19
19850	{ <i>Bucklow Rural</i> } { <i>District.</i> }	242	1	6	...	2	7	6	22	10	...	...	93	46

TABLE 35.

Vaccination 1907.

	Births.	Successfully Vaccinated.	Insusceptible.	Had Small-pox.	Died Unvaccinated.	Postponed on Certificate.	Removed and Traced.	Lost.	Number Remaining.	Conscientious Objections.
Altrincham ..	408	350	3	—	21	10	—	7	2	14
„ ...	390	328	4	—	22	5	3	2	—	26
Lymm ..	90	80	—	—	6	1	1	—	—	2
„ ...	71	63	—	—	3	1	—	—	—	4
Knutsford ...	110	96	—	—	5	7	—	2	—	—
„ ...	91	82	—	—	9	—	—	—	—	—
Wilmslow ...	129	102	1	—	5	12	—	3	—	2
„ ...	103	70	—	—	5	17	2	4	—	5
Sale ..	268	245	—	—	11	5	2	3	—	6
„ ..	300	248	1	—	23	4	3	3	—	18
Totals ...	1960	1664	9	—	110	62	11	24	2	77
1896 to 1906 inclusive	21067	18075	187	—	1718	586	107	194	17	188
Grand Totals ...	23027	19739	196	—	1828	648	118	218	19	265

TABLE 36.

Shewing the position of the Bucklow District as compared with 11 other Rural Districts in Cheshire in 1907.

	Birth Rate.	Place in List.	Death Rate.	Place in List.	Zymotic Death Rate.	Place in List.	Infantile Mortality Figure.	Place in List.
Best of 12 ...	28·8	—	8·8	—	0·0	—	46	—
Worst of 12.	14·7	—	14·9	—	1·7	—	105	—
Bucklow ...	18·5	10	11·3	7	0·3	5	81	6

TABLE 37.

Notifications of Infectious Diseases.

Year.	Small-pox.	Scarlatina.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Cholera.	Erysipelas.	TOTAL.
1890	—	26	5	5	1	—	2	39
1891	—	28	5	7	—	—	8	48
1892	—	68	8	18	2	—	11	107
1893	—	193	18	14	1	—	14	240
1894	1	116	40	7	2	—	16	182
1895	2	39	19	11	3	—	5	79
1896	—	31	9	19	1	—	5	65
1897	—	42	3	8	—	—	6	59
1898	—	19	11	6	—	1	9	46
1899	—	83	6	7	2	—	8	106
1900	—	79	8	6	—	—	3	96
1901	—	120	23	6	—	—	9	158
1902	—	46	37	6	4	—	9	102
1903	6	52	25	7	—	—	7	97
1904	—	79	27	2	3	—	6	117
1905	—	58	31	2	3	—	14	108
1906	—	75	17	5	1	—	8	106
1907	—	53	9	4	1	—	5	72
Total of 18 years.	9	1207	301	140	24	1	145	1827
Average of 18 years	—	67	17	8	1	—	8	101
1908	1	65	25	2	2	—	10	105

TABLE 38.

Deaths from Zymotic Diseases.

Year.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Enteric Fever.	Diarrhoea.	TOTAL.	Phthisis.	Erysipelas.	Puerperal Fever.
1890	—	5	1	—	3	3	8	20	43	1	1
1891	—	1	1	1	5	4	6	18	40	—	—
1892	—	13	3	1	7	3	6	33	32	2	2
1893	2	3	6	6	1	7	18	43	28	3	1
1894	—	1	4	5	8	1	5	24	29	3	1
1895	1	—	2	5	3	4	2	17	22	1	3
1896	—	1	—	6	3	3	4	17	23	—	1
1897	—	16	1	2	1	3	15	38	26	—	—
1898	—	3	1	2	—	2	11	19	19	—	—
1899	—	—	3	1	7	3	16	30	29	1	2
1900	—	—	1	1	8	1	7	18	22	—	—
1901	—	1	2	5	8	2	10	28	15	1	—
1902	—	1	2	7	1	—	1	12	10	—	4
1903	2	2	4	7	6	1	8	30	18	2	—
1904	—	1	2	2	7	1	8	21	17	1	1
1905	—	5	4	4	1	1	6	21	12	—	—
1906	—	4	—	4	—	—	11	19	15	—	1
1907	—	1	1	—	2	—	2	6	13	—	—
Total of 18 years	5	58	38	59	71	39	144	414	413	15	17
Average of 18 Years	—	3	2	3	4	2	8	23	23	1	1
1908	—	2	1	6	7	—	5	22	10	—	—

TABLES 39 & 40.

Factories and Workshops. Cow-keepers and Milk-sellers.

TOWNSHIP.	Mr. McKenzie.—On Register.						Mr. Metcalfe.	
	Inspections	Defects Found and Notices Served.	Factories.	Workshops	Domestic Workshops	Total.	Cow-keepers.	Milk-sellers.
Agden ..	2	—	—	2	—	2	3	1
Ashley ...	5	1	—	2	3	5	24	15
Aston-by-Budworth	4	—	1	—	3	4	32	8
Baguley ..	8	3	—	6	1	7	18	2
Bexton ...	4	—	2	2	—	4	5	4
Bollington ...	2	—	1	1	—	2	10	6
Carrington ...	9	5	—	5	4	9	9	1
Dunham Massey ...	20	—	6	15	3	24	36	15
High Legh ...	8	—	—	4	4	8	44	11
Marthall ..	3	—	2	1	—	3	19	12
Mere ...	6	—	2	—	3	5	25	4
Millington ...	4	—	—	2	2	4	5	2
Mobberley ...	20	2	4	8	13	25	60	37
Northenden ...	40	5	6	27	33	66	13	9
Northen Etchells ...	7	1	—	5	2	7	13	6
Ollerton ..	4	2	—	2	2	4	12	6
Partington ...	10	1	2	4	3	9	9	3
Peover Inferior ...	1	1	—	3	—	3	7	2
Peover Superior ...	9	1	2	5	2	9	27	14
Pickmere ...	3	—	—	1	2	3	16	4
Plumbley ...	8	1	2	1	5	8	18	5
Ringway ...	—	—	1	1	—	2	27	8
Rosterne ...	2	—	—	—	4	4	8	4
Styal ...	8	2	1	5	3	9	17	12
Tabley Inferior ...	—	—	—	—	—	—	4	4
Tabley Superior ...	10	—	—	2	9	11	22	15
Tatton ...	—	—	—	—	1	1	1	—
Timperley ...	35	3	6	20	16	42	15	8
Toft ...	—	—	—	1	—	1	8	4
Warburton ...	4	2	1	—	3	4	8	2
Total ...	236	30	39	125	121	285	515	223

TABLE 41.

Annual Report of the Medical Officer of Health for the year 1908, for the Rural District of Bucklow, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prosecutions.
Factories ... (Including Factory Laundries.)	39	4	...
Workshops ... (Including Workshop Laundries.)	125	23	...
Workplaces ...	121	3	...
Total ...	285	30	...

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects Remedied	Referred to H.M. Inspector.	Number of Prosecutions
<i>Nuisances under the Public Health Acts:—</i>				
Want of Cleanliness ...	26	26	...	...
Sanitary Accommodation—				
Insufficient ...	2	2	...	...
Unsuitable or Defective	1	1	...	...
<i>Offences under the Factory and Workshop Act:—</i>				
Breach of Special Sanitary Requirements for Bakehouses ...	1	1	...	...
Total ...	30	30	...	...

4.—REGISTERED WORKSHOPS.

Class.	Number.
Workshops ...	125
Domestic Workshops ...	121
Factories ...	39
Total number of Workshops on Register ...	285

5.—OTHER MATTERS.

Matters notified to H.M. Inspector of Factories:—

{ Underground Bakehouses ...	1
{ In use at the end of the year ...	1

TABLE 42.

Summary of the work done in the Sanitary Inspector's Department in the Bucklow Rural District for the year ending December 31st, 1908.

Dwelling-houses and Schools—

Houses inspected	...	...	...	...	...	183
Schools inspected	...	...	...	...	...	3
Foul conditions	...	...	...	...	...	71
Structural defects	...	...	...	...	...	130

Drainage—

Drains tested	...	...	...	...	...	96
Drains relaid	...	...	...	...	...	79
Drains amended	...	...	...	...	...	16
Soil-pipes tested	...	...	...	...	...	8

Dairies and Cowsheds—

Farms	}	Inspections	...	...	...	610
Cowsheds			...	...	...
Dairies			...	...	...
Milkshops			...	...	...
New Cowsheds built	...	...	...	...	...	2
Notices served (including lime-washing)	...	...	...	...	...	1112
Applications for registration	...	...	...	...	...	2

Disinfection and Infectious Diseases—

Number of visits	...	...	...	...	...	241
Houses disinfected	...	...	...	...	...	94
Schools disinfected	...	...	...	...	...	2
Lots of bedding and clothes disinfected	...	...	...	...	...	68

Anthrax—

Visits	5
--------	-----	-----	-----	-----	-----	---

Tuberculous Cows—

Visits	6
--------	-----	-----	-----	-----	-----	---

Food Inspection—

Slaughter-houses	}	Inspections	287
Butchers' Shops			...	...	...
Fish Carts			...	...	...
Meat Carts			...	...	...
Fruit Shops			...	...	...

Scavenging—

Ashpits inspected	...	...	...	...	...	1159
Ashpits emptied	...	...	...	...	...	4150
Pails emptied	...	...	...	...	...	2891
Dustbins emptied	...	...	...	...	...	6378
Loads removed	...	...	...	...	...	2306
Houses scavenged	...	...	...	...	...	14403

Water Supply—

Water certificates granted	...	...	...	...	...	78
Water samples from wells	...	...	...	...	...	14
Water samples from rivers	...	...	...	...	...	12

River Pollution (Inspections)—

The Bollin	...	...	...	...	...	17
Timperley Brook	...	...	...	...	...	8
Sinderland Brook	...	...	...	...	...	10
Baguley Brook	...	...	...	...	...	4
Whim Brook	...	...	...	...	...	8

General—

Re-inspections	...	...	...	...	...	915
Pigsties inspected	...	...	...	...	...	171
Complaints	...	...	...	...	...	36
Privies converted to W.C.'s	...	...	...	...	...	12
Privies converted to Pails	...	...	...	...	...	7
Pails converted to W.C.'s	...	...	...	...	...	12
Overcrowding	...	...	...	...	...	Nil
Smoke Nuisances	...	...	...	...	...	2
Notices served	...	...	...	...	...	155

BUCKLOW RURAL DISTRICT.

Note.—The matter found on pages 5 to 14, inclusive, is to be considered an integral part of this Report.

Area.—This remains unchanged, and comprises 30 Townships, whose names and grouping will be found in Tables 33 and 34. The grouping in five Sub-Districts (see page 55, Annual Report 1903) instead of four as formerly, has an upsetting effect on Table 24, and it will be five years yet before this is got rid of; the figures resulting from the new arrangement can only begin with 1903. For previous years those of the new one are included in, and distributed among, three of the four pre-existing Sub-Districts.

Public Institutions.—These include the Manchester Consumption Hospital, actually in Dunham Massey; the Baguley Sanatorium and the temporary Small-pox Hospital, now also belonging to Manchester; the Cottage Homes at Styal; and the Epileptic Colony in Marthall; also 2 or 3 houses belonging to the Cheadle Royal Asylum.

These Institutions have now become collectively so populous, that I have decided for the future to exclude the numbers, estimated for 1908 at 992, from the estimate of ordinary population.

Population.—The estimated natural increase for 1908 is 762, making a total of 22762. (For these figures I am relying on the Surveyor of new buildings.) But deducting 992 (as above) the figure with which I shall work is 21770. There are no births, and few deaths, in these Institutions; and I think it will be better to mention what few there are in the body of my Report, rather than add further columns to Tables which are already sufficiently complicated.

Tables.—The year 1897 now disappears, and 1907 comes in, in Tables 23 and 24. As a result the average of the birth-rates falls 0·4 to 21·8; that of the death-rates falls 0·2 to 12·7; that of the zymotic death-rates falls 0·1 to 0·9; and that of the Infant Mortality Figures falls 4 to 107.

The Rates are all falling, slowly but steadily. Except in the case of the birth-rate, this points to improvement in the chances of life; but as a mere statistical matter it must be noted that each year has a harder task than its predecessors in keeping up to or better than the decennial average they have set up.

Births.—(Tables 23 and 29.) The births registered are 219 males and 242 females, total 461; Rate 21·2. The Rates for

the Sub-Districts are 23·1, 15·0, 21·2, 17·0, 25·5. The Rate for England and Wales is 26·5, and for Country Districts is 26·2. Bucklow is therefore 19 per cent. below this last.

All particulars will be found in Table 29, in a form permitting of easy comparison.

Deaths.—(Tables 23, 24, 26, 27, 31.) The total number, after correction, is 242, and the Rate is 11·1. This is the lowest recorded (Table 23.) The Rates for the Sub-Districts were 10·6, 9·9, 13·7, 8·3, 13·0. The Rate for England and Wales is 14·7, and is the same for Country Districts; so that here Bucklow has an advantage of 24 per cent.

The seasonal distribution of the deaths, and the gradual building up of the Rate, are shown thus :—

	No. of deaths.	Actual Rate.
January	28	1·29
February	22	1·01
March	33	1·51
April	25	1·15
May	18	0·82
June	8	0·37
July	16	0·73
August	17	0·78
September	12	0·55
October	22	1·01
November	17	0·78
December	24	1·10
	<hr/> 242 <hr/>	<hr/> 11·10 <hr/>

Corrections for deaths in Public Institutions have been made as follows :—By excluding 4 in the Consumption Hospital, 11 in the Baguley Sanatorium, 5 in the David Lewis Homes (“Epileptic Colony,”) and 5 in the Styal Cottage Homes; and by including 21 in the Workhouse, 5 in the Altrincham Hospital, and 3 in Manchester and Salford Hospitals. 7 deaths have also been excluded which occurred in roads, rivers, and canals, such deaths being reported to the M.O.H.’s of their respective Districts. One death of a stranger remains in the list, as his residence was not ascertained.

Infantile Mortality.—The number of deaths of infants under one year is 46; and the infantile mortality figure is $(\frac{1000 \times 46}{461})$ 100. This is only 7 below the average.

If the “figures” be worked out for the Sub-Districts separately, they are found to be 81, 45, 26, 53, and 183 respectively. The figure for England and Wales is 121, and for Country Districts 110.

Illegitimate Infants.—(Table 30.) The number born in 1908 was only 12, or 2·7 per cent. of all births. Of these 2 died, or 16·6 per cent. of illegitimate births; whilst 44 deaths among 449 legitimate children form 9·8 per cent. only.

Mortality among Old People.—(Table 28.) No less than 93 deaths occurred among persons over 65 years of age, or 38 per cent. of all deaths. This is a greater proportion than usual, but the same as in 1907.

Uncertified Deaths.—None. There have only been 5 cases in 7 years, among 1785 deaths.

Coroner's Inquests.—All particulars are given in Table 32. The total number is 21, of which 9 do not belong to the District.

Comparative Position.—(Table 36.) This is ascertained for the year 1907 to be 7th (out of 12 Rural Districts in the County). This is our average position.

It sometimes seems strange that the Bucklow District does not occupy a higher comparative position; but the fact is that, more than any of its neighbours, it contains areas which are rapidly becoming more "urban" than "rural," which therefore have a class of population, and conditions of life, less favourable to the attainment of ideal Vital Statistics. (For example, see, above, the infant mortality figures of the different Sub-Districts).

Notifications of Infectious Disease.—(Tables 25, 33, 37). The total, 105, is very close to the average. Scarlet fever is just at its average; diphtheria slightly above; of enteric fever only two cases. Ten townships had no cases at all. Eight townships had only 1 case each; two had 2; four had 3; two had 4; two had 6; and only Dunham Massey with 21, and Timperley with 40, call for comment. Both townships are contiguous to the Altrincham Urban District, and contain semi-urban areas. Dunham Massey had 3 cases of diphtheria in June, 2 in July, 2 in September; 1 case of scarlet fever in February, 1 in March, 5 in April, 2 in November, 1 in December. Timperley had 1 case of diphtheria in March, 1 in May, 3 in July, 1 in November; 1 case of scarlet fever in May, 5 in October, 15 in November, 8 in December. The only outbreak that can be considered an epidemic (in the whole District in the whole year) was therefore the scarlet fever in Timperley.* There is no doubt that this was started by an unrecognised case, and propagated by personal contact, as all the cases were within a very small area, and the epidemic was quite unaffected by closure of schools, which was done by the managers in opposition to my advice.

Deaths from Zymotic Diseases.—In the previous paragraph we have considered the diseases scheduled in the Notification Act. We turn now to a different list, viz.: that of the Registrar General. His list includes small-pox, measles, scarlatina, diph-

*With 6 more cases in January, 1909, this appears to have come to an end.

theria, whooping-cough, fever, and diarrhœa. As three of these are not notifiable, we have no means of ascertaining or recording the number of cases that occur. The only figures which we can compare are those which enumerate the deaths registered from these diseases. Table 34 gives the zymotic mortality for 18 years. (Not corrected for alterations in area and population). The number of deaths in 1908 was 22, and the Rate 1·0. This is just the average zymotic mortality of the District. Deaths from diphtheria (6), and whooping-cough (7), were above the average. 7 deaths occurred from notifiable diseases, and 14 from the "simple ailments" which are not thought worth notification; a contrast to which I have frequently drawn attention. (Tables 34 and 38). The Rate for England and Wales is 1·3; and for Country Districts 1·0. (Table 1).

Small-pox.—One case was notified at the end of July; a boy of 16. He had been vaccinated; and the attack was so slight that there was a little hesitation about notifying it. The case was treated at home, and made an uneventful recovery.

Vaccination.—Table 35. These figures include the Urban Districts within the Area of the Bucklow Union, as explained in detail in my Annual Report, 1901, page 24. I give the figures for the two half-years of 1907; then the totals for the eleven years next preceding. In 1907, out of 1850 surviving children, 1664 are known to have been vaccinated; or 90 per cent; whilst if cases medically postponed, and those removed and traced, be assumed to have been ultimately vaccinated in the same proportion, among the survivors, (an assumption to which I can see no logical objection), the percentage vaccinated, of the whole, is 94. The similar Rates for the whole 12 years, combined, are 93 and 97.

But this is the last time such a good report will be made. Under the new Act, no less than 281 exemptions have been claimed during the first half of 1908; so that the number of unprotected children promises to reach, or exceed, 28 per cent. of births, instead of a mere 3 per cent.

Measles.—Various small localised outbreaks occurred; and occasionally schools were closed (by the Managers) for short periods. One child, aged 9, died at Ollerton; and a baby a month old at Northenden, both in July.

Scarlet Fever.—One death occurred in the Sanatorium in December, the child belonging to Timperley. 65 cases were notified, and there is no doubt others existed. Of 6 cases in Marthall, 5 were in the David Lewis Homes. Table 33 sufficiently indicates the distribution of the cases; and the special features in Dunham Massey and Timperley have been

described above, under "Notifications." A yearly average, of 67 cases, with 2 deaths, in a population of 22000, though by no means perfection, is not unsatisfactory.

Whooping-cough.—7 deaths, viz.: 1 in Marthall in January, 1 in High Legh in February, and 5 in Northenden in March, indicate separate local epidemics. In each and every case the death was ascribed to pneumonia, secondary to the whooping-cough. This is proof of insufficient care in nursing, a cause of loss of infant life to which I often draw attention.

Diphtheria.—The number of cases notified rose to 25; 12 of which were scattered, (Table 33); and 13 were in Dunham Massey and Timperley, and have been alluded to above; no epidemic occurred. 20 were treated in Hospital; 5 proving fatal; an unusually large proportion. 1 death also occurred among the 5 treated at home.

Enteric Fever.—Two cases, in the same house, in Ringway, in April and June. Treated at home, and recovered. Origin not ascertained.

Influenza.—One death in February in Dunham Massey.

Diarrhœa.—6 cases, all infantile. One in Ashley in February; two in Timperley in August; one in Baguley in October; and two in Northenden in October and November. I have grave doubts as to the correctness of classifying these deaths as "zymotic."

Enteritis.—One death, M., 41 years, Plumbley. Tables 33 and 34 show the remarkable immunity of the Bucklow District from enteric fever, and diarrhœal diseases. For the last 19 years, the average notifications of enteric fever have only been 8; the deaths, 2; annually; and the diarrhœa deaths 8. Even these numbers would be reduced, if we could eliminate those belonging to the 3 Townships which were in the Rural District a part of the time, but are not now.

Puerperal Fever.—Two notifications, Timperley, January; and Northenden, August. The latter is remarkable as being the first case sent from any of my Districts into Hospital for treatment. The patient was in Monsall Hospital for nearly six weeks. Both recovered.

Erysipelas.—10 notifications; of little importance; no deaths.

Phthisis.—10 deaths; 4 in Timperley, 3 in Styal, 2 in Baguley, 1 in Dunham Massey. 3 males, 7 females. Ages from 16 to 59 years; average 34 years. Rate 0.5. Disinfection is always offered in the houses where deaths have occurred, and is generally accepted. We get hardly any cases notified, nor have we any means of dealing with them.

Other Tuberculous Diseases.—2 deaths; Northenden, M., 45, laryngitis; Peover Superior, M., 65, tubercle of bladder (Workhouse).

Cancer.—21 deaths; Rate 1.0. 4 deaths in Dunham Massey, 2 in Partington, 1 each in Timperley, Millington, Warburton, Aston, Toft, Ollerton, Marthall, Tabley Superior, Plumbley, Rostherne, Northen Etchells, Mobberley, Styal, Carrington and Northenden. 8 males, 13 females. Ages from 3 to 81 years, average 62 years. In 14 cases some part of the alimentary canal was affected, in 2 cases the breast, and in 5 cases some part of the head or neck.

Respiratory Diseases.—37 deaths, Rate 1.7.

Alcoholism.—5 deaths; 4 males, 1 female. 3 in Northenden, 1 each in Baguley and Dunham Massey.

Heart Diseases.—33 deaths; Rate 1.5.

Accidents.—7 deaths. See "Coroner's Inquests."

Other Causes.—One death in every nine evades the classification in Table 26; and has to be put down to "other causes." It would be one out of every three, but for the last four headings, which I have added myself to the official list.

Isolation Hospitals.—Cases of enteric fever and puerperal fever can be sent to the Monsall Hospital; scarlet fever and diphtheria to the Baguley Sanatorium; small-pox to Clayton Vale. This District, along with its partners in the Joint Hospital Board, has a contract with the Manchester Corporation for a reserve of 45 beds for scarlet fever, diphtheria, enteric fever and puerperal fever; and 10 beds for small-pox; but in case of emergency, and assuming that there were other unoccupied beds, there is no doubt additional cases would be taken in. The Baguley Sanatorium has nominally 100 beds; but can take about 16 more cases, under pressure.

Then there is a new hospital for 30 beds, which is in course of erection by the Altrincham Urban District Council, in which the Joint Hospital Board is supposed to be able to obtain a bed or two, when vacant, by agreement; but no agreement has been entered into yet.

Since removal to Hospital was commenced in 1898, the numbers have been—

Year.	Notifications.	Removals.	Percentage.
1898	46	5	10
1899	106	16	15
1900	96	42	43
1901	158	50	31
1902	102	27	27
1903	97	57	59
1904	117	63	54
1905	108	43	40
1906	106	51	48
1907	72	43	60
1908	105	69	66

Sewage Disposal.—The main sewer in Dunham Massey is now completed. This was a matter of urgent importance in 1899, (and probably for some years previously); at all events, I reported on it in that year, and have done so every year since; it is therefore with no small relief that I can now report the scheme in actual operation. One branch-sewer is being laid at the present time, and that will complete the whole work. It has been owing to unforeseen engineering difficulties that the scheme has been so tedious, and so much more costly than was anticipated. The total cost will be £32,000; whereas the estimate, when the scheme was first considered, was a small one of some £3,000 or £4,000 only.

There is nothing fresh to say about the Timperley and Northenden works. They require, and receive, careful oversight; and though far from perfect, complaints are rare.

Dairies and Cowsheds.—Between March and September (inclusive) I accompanied Mr. Metcalfe on special journies of inspection to every township in the District. Some townships received two, three, or four, special visits. Very great improvements have been made since this work was first taken up. Mr. Metcalfe reports on this subject.

Factories and Workshops.—Between April and October (inclusive) I accompanied Mr. McKenzie on special journies of inspection to every township in the District. Several were visited more than once. We have very few works of any importance (from an inspection point of view) in this District. Mr. McKenzie reports on this subject.

Systematic Inspection.—Enough has been said in the preceding pages, and will be found in the following reports from Mr. McKenzie and Mr. Metcalfe, to render it hardly necessary to give the formal assurance asked for in the Local Government Board Memorandum. As I have said before, I do not know any District (of this kind) which is more thoroughly inspected, systematically and periodically, than this District.

Annual Memorandum of Local Government Board.—To comply fully with the requirements of this Memorandum, it will be as well to allude briefly to one or two other matters, though they have all been dealt with in previous Reports.

Physical Features.—A rich agricultural District, gently undulating, touching the river Mersey on the North, and traversed by the river Bollin. Contains several large Parks; and numerous villa-residences; also several villages and hamlets; as well as collections of working-class population in semi-urban areas in Northenden, Timperley and Dunham Massey.

Occupations.—Primarily agricultural ; secondarily anything ; as many workers in Manchester, not to mention all the Urban Districts, reside in the convenient, picturesque, and healthy parts of this Rural District.

House Accommodation.—On the whole very good, and adequate. The only exception would be one or two small streets in the areas mentioned. Supervision over erection of new houses is very strict ; and has been so for many years.

Water Supply.—In most important parts this is from the North Cheshire Water Company's mains ; an upland water ; very pure ; and in quantity sufficient. In outlying areas the only source possible is from wells. These are often doubtful both as to quality and quantity. I have not been able to discover any alternative.

Milk Supply.—A large quantity of milk is produced, and a good deal of it goes into Manchester. We have no means of discovering tuberculous milk, but we occasionally get information from Manchester, whose officials have in this District (from private Acts of Parliament) more powers with regard to such matters than have the officers of the District itself. This and other foods, see Mr. Metcalfe's report.

Sewerage and Drainage.—Several small areas are near the border line which divides individual effort from collective action. I would like to see them well sewered ; but in every case the expense seems to be greater than the immediate absolute necessity ; and I therefore do not consider it worth while at present to name them or to discuss their circumstances in detail.

Schools.—See list in Annual Report 1906, pages 118-9.

Tuberculosis.—Voluntary notification, not successful. No machinery for dealing with existing cases. Houses disinfected after deaths. No hospital accommodation.

Notification of Births' Act.—Not adopted.

Public Health Acts Amendment Act, 1907.—This is under the consideration of a Committee, and I hope some parts of it will be adopted.

Conclusion.—I have as usual made an effort to secure brevity. The following contributions from Mr. McKenzie and Mr. Metcalfe will cover all the points I have myself omitted. To both of them I have again to express my great indebtedness for their valuable assistance ; and I am pleased to publish their Reports in their own names respectively.

T. W. H. GARSTANG,

February 9th, 1909.

D.P.H. Vict.

Factory and Workshop Act, 1901.
Annual Report of Surveyor for 1908.

Inspections under the above Act have been carried out during 1908 throughout the entire District in company with the Medical Officer of Health. The register shows at the close of the year 39 Factories, 125 Workshops, and 121 Workplaces within the District. 236 Inspections were made and the following defects found and notices served to remedy same :—

Want of Cleanliness	... ..	26
Sanitary Accommodation defective or insufficient		4
		30

There are only 2 Out-workers in the District, one in Northenden and one in Timperley. An underground Bakehouse has been discovered in Northenden, but this has been vacated since the notice has been served, the occupier having moved to new premises.

J. McD. McKENZIE,

District Surveyor.

Annual Report on Canal Boats.

During the year 1908 29 visits have been paid and inspections made of 50 Canal Boats within the Council's District. These were examined and found in a satisfactory condition. 7 Boats were directly engaged in the night-soil manure traffic, and for this class of Boat were fairly satisfactory. I am not satisfied, however, with the manner in which the foul bilge water is removed, and gave verbal warnings to the men in charge of 3 of the Boats that a repetition would be reported. No formal notices have been served. The Boats were registered to carry 198 persons, and 107 were on board, viz.: 74 men, 31 women, and 2 children (both being under school age). No case of infectious disease has been notified, the condition of the Boats of late years being greatly improved, owing, I consider, to the vigilant inspection of the Bridgwater Canal, along which these Boats ply.

J. McD. McKENZIE,

District Surveyor.

Annual Report of Building Plans Committee, 1908.

During the year 157 sets of Plans have been submitted to the Council for their approval, and 2 letters with respect to building matters have been received and dealt with. Of the Plans submitted, approval was granted to 98 sets on their first appearance; 59 sets were returned for amendment and subsequently passed. The various buildings, of which plans were approved, are as follows:—

Plans submitted	...	...	...	...	157
Letters received	...	...	...	...	2
Returned for amendment	...	...	...	...	59
Alterations and Additions	...	...	...	...	29
Cottages, Dwelling-houses, etc.	...	...	...	...	29
Conversion of Old Buildings into Cottages					2
Drainage Plans	...	...	...	...	2
Wash-houses	...	...	...	...	5
Farm Buildings	...	...	...	...	12
Billiard-rooms	...	...	...	...	1
Garages	...	...	...	...	4
Hospital Additions	...	...	...	...	1
Irishmen's Houses	...	...	...	...	4
Road Widening, etc.	...	...	...	...	1
Stables (other than Farm Buildings)	...	...	...	...	4
Old House into 2 Houses	...	...	...	...	1
Additions to Works...	...	...	...	...	2
Parish Hall	...	...	...	...	1

The Committee has also during the year paid special visits to 4 cases for the purpose of actually inspecting proposed sites.

J. McD. McKENZIE,

District Surveyor.

Surveyor's Annual Report, 1908.

During the year 23 Certificates were granted for 78 houses, which are now occupied. Footings for 53 new buildings have been examined and found satisfactory, and 48 connections to main sewers have been inspected and found in order. All new drains throughout the District have been water tested, and the 178 sets thus inspected were found satisfactory.

Following *Licenses* have been granted by the Council during the year :—

Hackney Carriage Licenses	26
" " Drivers' Licenses...	26
" " Conductors' Licenses ...	17
Carbide of Calcium Storage Licenses ...	7
Petrol Storage Licenses	3
Tram-Car Licenses	30
" Drivers' Licenses	47
" Conductors' Licenses	47

The Mersey and Irwell Committee's Reports on the *Northenden Sewage Disposal Works* have caused alterations to be carried out to improve the unsatisfactory character of effluent during latter half of year. This District has grown so rapidly of recent years that additional tank space and filtering area will have to be provided. The Sewage Disposal Works of Dunham and Timperley are working satisfactorily. Most of the connections at the Broadheath end of the township of Dunham Massey have been made with the recently completed sewerage system. The hamlets of Dunham Wood-houses and Lower-houses are now in hand with a view to connecting up of all properties in these two places. The Main Sewers in Lower-houses are completed; those in Dunham Town will be at the end of March next.

J. McD. McKENZIE,

District Surveyor.

SANITARY INSPECTOR'S REPORT.

I have much pleasure in submitting my Report of the work done in this department for the year ending December 31st, 1908.

Dairies and Cowsheds.—This work has been carried out in the same systematic manner as in previous years, and on many occasions I have been accompanied by Dr. Garstang. Every township was visited in his company, and several of them three or four times over. We interviewed a number of the farmers, and sermons on Sanitation and Cleanliness were frequently preached with good results. The “grooming” of cows, I am pleased to say, is receiving much more attention than in the past, but there is still room for much improvement.

Where structural defects were discovered, notices were served, and many improvements carried out. Two new cowsheds were built and several re-modelled. There are still a few that might be called “bad cases,” and schemes are now in hand to deal with some of them during 1909.

There were 513 premises on the Register at the beginning of the year, and 515 at the close, the latter number being made up as follows:—Cow-keepers (not milk-sellers) 292; Purveyors of Milk and Cow-keepers, 217; Purveyors of Milk (not cow-keepers) 6. There were two applications for registration during the year, and 1112 notices were served (which include the lime-washing notices sent out in May and October). I can report a fair amount of progress in this department during 1908.

Tuberculous Cows.—Four cases were notified by the Medical Officer of Health, Manchester; one was in Plumbley, one in Mobberley, and two in Tabley Inferior. Both cases in Tabley Inferior were from the same farm. The cows were slaughtered under the supervision of the Manchester Officials or myself, and the diseased carcasses disposed of, so that no meat from same could be used for human food.

Food Inspection.—This has been carried on with considerable care and watchfulness as in the past years, and as will be seen by the Table, many visits were made to shops where meat, fish, rabbits, fruit, and other foods were exposed for sale. Special attention was paid to hawkers' carts. There were no surrenders of unsound food during the year.

Slaughter-houses.—There are now sixteen Slaughter-houses in the District, and frequent inspections have been made on “Slaughtering-days” in order to inspect as much meat as possible. The extension of urban powers to the whole of the District, and the issue of new copies of Slaughter-house bye-laws has resulted in much improvement.

House to House Inspection.—This work has been continued, and 105 houses were inspected. The usual statutory notices were served where defects were discovered. The total number of houses inspected is now increased to 495.

House Drainage.—As will be seen by the Table, many houses have been re-drained, and new fittings provided, and in nearly every case structural alterations carried out. The water test is applied to all drains before being passed.

The new sewer being ready for use in Sinderland Lane, Dunham Massey, much attention was given to this part of the District.

All the house drains in Sinderland Lane, Huxley Street, Princess Road, Devonport Road, Wright Street, and some in Manchester Road (making a total of 146 houses), were connected up, and many of the house drains re-modelled.

There now only remain a few houses in Manchester Road to be connected up, and this work will probably be completed early in 1909. A letter was received from the Local Government Board in 1907 with regard to the cesspools in this District, and all these have now been abolished, except the one at the rear of Manchester Road.

Another case where a letter was received from the Local Government Board, viz.: near Woodward's Cottages, Sugar Lane, Timperley, was satisfactorily dealt with, the cesspools being abolished, and the drainage reconstructed and connected to the new sewer in Sugar Lane. The work of connecting house drains to new sewers in Dunham Massey will be proceeded with as each length of sewer is ready for use.

Water Supply.—Water certificates were granted for 78 houses under the provisions of Section 6 of the Public Health (Water) Act, 1878.

Where the water was from wells samples were submitted to the Analyst, and a satisfactory report obtained before the houses were allowed to be occupied.

In one case proceedings were taken for a breach of the aforementioned Act. The water supply of the township of Bollington is receiving special attention by the Council. A committee has been appointed, and an attempt is being made to obtain a supply by the extension of the North Cheshire Water Company's mains.

Smoke Nuisance.—Four complaints were received during the year. One from Plumbley (Ammonia Soda Co's Works), and three from Dunham Massey relating to the chimneys of St. Anne's Consumption Hospital, and Steam Laundry, Woodville Road, Altrincham. All these cases will be kept under observation.

Rivers Pollution.—Many inspections have been made of the rivers in the District (see Table), and several samples of water taken, but it was not considered necessary to submit same for analysis. Several cases of pollution were dealt with. Visits were made on Sundays where it was found to be desirable.

Disinfection.—All houses and clothing where infectious cases occurred were disinfected with “Konoform” or “Formalin,” and the rooms afterwards stripped and distempered. Practically the whole of the clothing and bedding from infected houses was removed to the Baguley Sanatorium and disinfected in the steam disinfecting apparatus.

Disinfection in Phthisis Cases.—Where information has been received as to phthisis cases the houses have been visited and disinfected by spraying with “Formalin.” Instructions, where necessary, have been given as to precautions to be taken by the patient and the advantages of regularly disinfecting the room in use pointed out to them. Offers have been made to disinfect at regular intervals, but this is, I am sorry to say, not often taken advantage of. Considerable assistance has been given by the Local Nursing Associations, and I would here express my thanks and appreciation of such services and interest taken in the prevention of consumption by them. The want was felt of suitable printed instructions and advice, in simple form, either card or leaflet, so that they could be left with the persons interested, and, through the assistance of Dr. Garstang, such instructions are expected to be in circulation by the time this report is in print.

Legal Proceedings.—The Ammonia Soda Co., Plumbley, were prosecuted for allowing a house to be occupied without a proper water supply being provided, and fined £1 and costs.

Scavenging and Removal of Refuse.—

Dunham Massey, Timperley, and Northenden.—The Scavenging in the township of Northenden has been carried out by contract, and in Dunham Massey and Timperley by the Council’s own staff of workmen.

The following is a return of the work done in each township during the year :—

	Dunham.	Timperley.	Northenden.
Houses scavenged ...	2246	6609	5548
Ashpits emptied ...	953	1679	1518
Dustbins emptied ...	434	3007	2937
Pails emptied ...	422	2311	158
Loads removed ...	666	980	660

163 loads of manure were sold from Dunham Massey, and 322 from Timperley.

R. MOORE METCALFE.

Biddulph Urban District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1908.

Population at Census, 1891, 5,290.

“ “ “ 1901, 6,247. Increase, 957.

Estimated Population in middle of 1908, 7,400.

Area of District in Acres (exclusive of area covered by water) $5,057 - 30 = 5,027$.

Number of Inhabited Houses, 1,260.	} At Census of
Average Number of Persons per House, 4.95.		1901.

Institutions within the District receiving sick and infirm persons from outside the District: None.

Institutions outside the District receiving sick and infirm persons from the District: Union Workhouse, at Leek. North Stafford Infirmary. Congleton Cottage Hospital. Joint Infectious Diseases Hospital.

Other Institutions, the deaths in which have been distributed among the several localities in the District: None.

Birth Rate per 1,000 living, 34.3.

Death Rate per 1,000 living, 12.0.

Death Rate from Seven Principal Zymotic Diseases, 2.3.

Deaths under one year in proportion to 1,000 Births, 87.

Each birth or death contributes to the Rate 0.13513.

TABLE 43.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1908 and Previous Years.

Name of District, BIDDULPH (URBAN).

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		Total Deaths Registered in the District.				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.	Nett Deaths at all Ages belonging to the District.	
				Under 1 Year.		At all Ages.					Number.	Rate.
				Number.	Rate.	Number.	Rate per 1000 Births registered.					
1898	5959	199	33·4	28	140	79	...	...	..	1	80	13·4
1899	6055	210	34·6	29	138	109	...	...	..	...	110	18·1
1900	6141	206	33·5	34	165	113	...	..	...	1	114	18·5
1901	6247	245	39·2	22	90	85	...	...	...	5	89	14·2
1902	6367	226	35·5	34	150	117	...	...	...	3	119	18·7
1903	6440	225	34·9	22	98	83	...	5	..	5	89	13·8
1904	6525	215	33·0	32	149	98	...	2	...	2	99	15·2
1905	6656	240	36·0	29	121	99	...	1	...	4	103	15·5
1906	6860	235	34·3	39	166	102	...	...	...	2	104	15·1
1907	7070	246	34·8	24	97	89	...	...	...	4	92	13·0
Averages for years 1898-1907	6432	225	34·9	29	131	97	...	2	.	3	100	15·6
1908	7400	254	34·3	22	87	86	...	2	...	3	89	12·0

TABLE 44.—(Local Government Board Table III.)

Cases of Infectious Disease notified during the Year 1908.

Name of District, BIDDULPH (URBAN).

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							No. OF CASES REMOVED TO HOSPITAL.
	At all Ages.	At Ages—Years.						
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	
Small-pox ...	..	..	..	..	..	..	..	..
Cholera ...	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	26	2	20	1	3	..	14	..
Erysipelas ...	..	..	..	..	..	..	..	..
Scarlet Fever ...	4	1	3	..	..	..	..	..
Typhus Fever ...	..	..	..	..	..	..	..	..
Enteric Fever ...	..	..	..	..	..	..	..	..
Relapsing Fever ...	..	..	..	..	..	..	..	..
Continued Fever ...	..	..	..	..	..	..	..	..
Puerperal Fever ...	..	..	..	..	..	..	..	..
Plague ...	..	..	..	..	..	..	..	..
Totals ...	30	3	23	1	3	..	14	..

TABLE 45.

(Local Government Board Table IV.)

Causes of, and Ages at, Death during Year 1908.

Name of District, BIDDULPH (URBAN).

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.								Total Deaths whether of Residents or non "Residents" in Public Institu- tions in the District.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.		
Small-pox ... ..	...	...	...	...	...	...	...	...	...
Measles	7	1	6	...	...	...	...	...	...
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...
Whooping-cough... ..	...	...	...	...	...	...	...	...	...
Diphtheria (including Mem- branous Croup)	3	...	1	2	...	...	...	...	2
Croup ... ..	...	...	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...	...	...
{ Enteric ... ..	...	...	...	...	...	...	...	...	...
{ Other continued..	...	...	...	...	...	...	...	...	...
Epidemic Influenza	1	...	...	...	...	1	...	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...
Diarrhoea	7	5	2	...	...	...	...	...	...
Enteritis ... ..	...	...	...	...	...	...	...	...	...
Puerperal Fever ... ..	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...
Phthisis	1	...	...	...	...	1	...	...	...
Other Tubercular Diseases	2	...	...	...	...	2	...	...	...
Cancer, Malignant Disease	6	...	...	...	...	3	3	...	...
Bronchitis	1	...	...	...	...	...	1	...	...
Pneumonia	14	2	...	...	...	5	7	...	...
Pleurisy ... ..	...	...	...	...	...	...	...	...	...
Other Diseases of Respira- tory Organs	1	...	...	...	...	1	...	...	...
Alcoholism ... ..	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver } ... ..	...	...	...	...	...	...	...	...	...
Veneral Diseases ... ..	...	...	...	...	...	...	...	...	...
Premature Birth	5	5	...	...	...	...	...	...	...
Diseases and Accidents of Parturition ... ..	...	...	...	...	...	...	...	...	...
Heart Diseases	7	...	1	1	...	3	2	...	...
Accidents	2	...	...	1	...	1	...	...	...
Suicides ... ..	...	...	...	...	...	...	...	...	...
Debility, &c.	3	3	...	...	...	...	...	...	...
Convulsions, &c.	5	5	...	...	...	...	...	...	...
Cerebral Diseases... ..	7	...	...	...	...	...	...	...	...
Old Age	8	...	...	...	...	3	4	...	...
All other causes	9	1	1	2	1	3	1	...	...
All causes	89	22	11	6	1	23	26	...	...

TABLE 46.

(Local Government Board Table V.)

Infantile Mortality during the year 1908.

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

Name of District, BIDDULPH (URBAN).

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 One Year.
		7	1	1	8	3	1	1	2	1	1	1	1	1	1	1	2	21
All Causes.	Certified ...	7	1	1	8	3	1	1	2	1	1	1	1	1	1	1	2	21
	Uncertified ...																	1
Common Infectious Diseases.	Small-pox ...																	
	Chicken-pox ...																	
	Measles ...																	
	Scarlet Fever ...																	
	Diphtheria : Croup Whooping Cough																	
Diarrhoeal Diseases.	Diarrhoea, all forms						1	1	1	1								4
	Enteritis, Muco-enteritis, Gastro-enteritis												1					1
	Gastritis, Gastro-intestinal Catarrh																	
Wasting Diseases.	Premature Birth ...	3	1		4	1												5
	Congenital Defects	1			1													1
	Injury at Birth ...	1			1													1
	Want of Breast-milk																	
	Atrophy, Debility, Marasmus	2			2													2
Tuberculous Diseases.	Tuberculous Meningitis																	
	Tuberculous Peritonitis : Tabes Mesenterica																	
	Other Tuberculous Diseases																	
	Erysipelas																	
Other Causes.	Syphilis ...																	
	Ricketts ...																	
	Meningitis (not Tuberculous)																	
	Convulsions ...						1	1				1				1	1	5
	Bronchitis ...																	
	Laryngitis ...																	
	Pneumonia ...									1							1	2
	Suffocation, overlaying																	
Other Causes ...																		
		7	1	1	8	3	2	2	2	1	1	1	1	1	1	1	2	22

District of Biddulph.

Population estimated to middle of 1908 ... 7400.

Births in the year { legitimate ... 249 Deaths in the year { legitimate infants ... 21
 { illegitimate ... 5 { illegitimate infants ... 1

Deaths from all Causes at all ages, 89.

TABLE 47.

Shewing Births, Birth-rate, Deaths, and General and Zymotic Death-rates, and compared with average of last 10 years; and Deaths in Old Age and Infancy, and percentage of these to Total Deaths; for the Year 1908.

TOTAL.			BIRTH RATE.		DEATH RATE.				DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.	
Births.	Deaths	Zymotic Deaths	Average.	1908.	General.		Zymotic.		At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.
					Average.	1908.	Average.	1908.				
254	89	17	34·9	34·3	15·6	12·0	1·7	2·3	26	22	29	25

TABLE 48.

Births.

	M.	F.	Total.	Rate.	Of which Ille- gitimate.		
					M.	F.	Total.
1st Quarter	35	28	63	34·2	0	0	0
2nd „	28	26	54	29·3	2	0	2
3rd „	42	33	75	40·2	1	0	1
4th „	38	24	62	33·3	1	1	2
Total ...	143	111	254	34·3	4	1	5

TABLE 49.

Shewing Deaths, Death-rates, Deaths from Special Diseases, and Old Age and Infantile Deaths, in the Four Quarters of the Year, 1908.

QUARTER ENDING.	Total Deaths.		DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.		Diphtheria.	Measles.	Diarrhoea.	ZYMOTIC DEATHS.		Phthisis.
	Total.	Rate.	At 65 Years and up- wards.	Under One Year.	At 65 Years and up- wards.	Under One Year.				Total.	Rate.	
March 31	25	13·5	6	8	24	31	1	0	1	2	1·1	0
June 30	18	9·8	8	1	44	6	2	0	0	2	1·1	0
Sept. 30	14	7·5	1	6	7	43	0	0	1	1	0·5	1
Dec. 31	32	17·1	11	7	34	22	0	7	5	12	6·4	0
Total	89	12·0	26	22	29	25	3	7	7	17	2·3	1

TABLE 50.

Vaccination.

	Total Births.	Vaccinated.	Dead. Unvaccinated.	Removed to places known.	Postponed on Medical Certifi- cate.	Lost sight of.	Conscientious Objections.
1896 ...	185	159	19	—	4	3	—
1897 ...	181	161	14	—	5	1	—
1898 ...	199	153	20	—	21	3	2
1899 ...	215	145	25	4	40	1	—
1900 ...	210	163	27	4	11	3	2
1901 ...	245	218	19	3	4	—	1
1902 ...	225	178	28	3	14	—	2
1903 ...	225	178	18	3	23	3	1
1904 ...	215	147	23	2	42	1	2
1905 ...	240	202	19	1	15	—	3
1906 ...	235	188	37	1	5	—	4
Total for 11 years	2375	1892	249	21	184	15	17
1907 ...	245	212	7	3	5	—	5

TABLE 51.

Shewing position of Biddulph in the County in 1907, compared with 36 other Urban Districts.

STAFFORDSHIRE.	Best of 37 Urban Districts	Worst of 37 Urban Districts	Bid- dulph Figures.	Place of Bid- dulph in the List.
Birth Rate	40·9	21·5	34·7	8
Death Rate	9·6	20·9	13·0	7
Zymotic Death Rate	0·2	3·3	0·3	3
Infantile Mortality	34	188	97	6

TABLE 52.

Notifications of Infectious Diseases.

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	TOTAL.
1890	—	12	2	3	2	1	20
1891	—	5	1	5	2	2	15
1892	—	18	3	3	—	—	24
1893	—	11	2	—	2	—	15
1894	18	12	4	3	2	—	39
1895	—	13	9	1	—	2	25
1896	—	38	4	3	4	6	55
1897	—	11	1	—	5	—	17
1898	—	1	3	2	1	—	7
1899	—	110	—	5	3	—	118
1900	—	22	1	3	—	—	26
1901	—	—	15	2	3	1	21
1902	—	—	1	11	1	—	13
1903	—	5	23	—	—	—	28
1904	—	14	30	3	2	1	50
1905	—	11	17	—	1	1	30
1906	—	12	28	5	2	—	47
1907	—	4	17	—	1	—	22
Total of 18 years.	18	299	161	49	31	14	577
Average of 18 years	1	16	9	3	2	1	32
1908	—	4	26	—	—	—	30

TABLE 53.

Deaths from Zymotic Diseases.

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping- cough.	Diarrhoea.	TOTAL.	Phthisis.	Puerperal Fever.	Erysipelas.
1890	—	1	—	—	—	—	—	1	6	1	—
1891	—	—	—	—	1	11	1	13	8	2	—
1892	—	2	—	—	—	—	1	3	2	—	—
1893	—	1	2	—	4	—	7	14	6	2	—
1894	1	—	3	1	—	1	—	6	2	1	—
1895	—	—	4	1	2	5	7	19	6	2	—
1896	—	3	4	—	3	2	2	14	9	2	—
1897	—	—	1	—	—	4	2	7	9	—	—
1898	—	—	1	—	12	3	4	20	5	—	—
1899	—	4	—	1	—	5	9	19	6	1	2
1900	—	—	1	—	—	—	6	7	2	—	—
1901	—	—	1	—	—	—	3	4	3	—	—
1902	—	—	1	1	7	2	3	14	5	—	—
1903	—	—	7	—	—	—	—	7	5	—	—
1904	—	—	4	—	1	—	—	5	9	—	—
1905	—	—	1	—	3	3	4	11	6	—	—
1906	—	—	2	1	3	1	4	11	4	1	1
1907	—	—	2	—	—	—	—	2	4	—	—
Total of 18 years	1	11	34	5	36	37	53	177	97	12	3
Average of 18 Years	—	0·6	1·9	0·3	2	2	3	10	5·4	0·7	0·2
1908	—	—	3	—	7	—	7	17	1	—	—

TABLE 54.

Summary of Sanitary Work done in the Nuisance Inspector's Department during the year 1908, in the Urban District of Biddulph.

		NUMBER OF		ABATEMENT NOTICES.		NUISANCES ABATED AFTER NOTICE BY	
		Inspections and Observations made.	Defects found.	Informal by Inspector.	Formal by Authority.	Inspector.	Authority.
Dwelling-Houses and Schools.	Foul Conditions	106	50	...	...	...	...
	Structural Defects	78	26	...	..	...	...
	Overcrowding	4	...	3	1	3	1
	Unfit for Habitation	3	...	...	3	...	3
	Lodging Houses ... ..	...	...	...	..	...	...
	Dairies and Milkshops	40	25	20	5	20	...
	Cowsheds						
	Bakehouses... ..						
	Slaughter-houses	3	Inspected Quarterly	...	...	...	...
	Canal Boats ... ..	...		...	...	...	...
Ashpits and Privies	45	13	13	...	13	...	
Deposits of Refuse and Manure	10	10	10	...	10	...	
Water Closets	1	...	1	...	1	...	
House Drainage.	Defective Traps	85	56	47	9	47	9
	No Disconnection						
	Other Faults						
	Water Supply	4	4	...	4	...	4
	Pigsties	20	2	2	...	2	...
	Animals improperly kept	18	5	5	...	5	...
	Offensive Trades' .. ..	...	...	...	...	...	...
	Smoke Nuisances ... ..	...	...	...	...	...	...
Other Nuisances ... ..	...	...	...	...	...	...
TOTALS		426	191	101	22	101	17
<i>Precautions against Infectious Disease.</i>							Nos.
Lots of Infected Bedding Disinfected or Destroyed .. ..		...	...	...	...	...	3
Houses Disinfected after Infectious Disease ... ..		...	...	...	...	...	10
Schools Disinfected after Infectious Disease ... ..		...	...	...	...	...	2

S. GIBSON,

Inspector of Nuisances.

February 6th, 1909.

TABLE 55.

Annual Report of the Medical Officer of Health for the year 1908, for the Urban District of Biddulph, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prosecutions.
Factories ... (Including Factory Laundries.)	20	2	...
Workshops ... (Including Workshop Laundries.)	96	2	...
Workplaces ...	...	...	...
Total ...	116	4	...

2.—DEFECTS FOUND.

Particulars.	Number of Defects			
	Found.	Remedied	Referred to H.M. Inspector.	Number of Prosecutions
<i>Nuisances under the Public Health Acts :—</i>				
Want of Cleanliness ...	1	1	...	...
Want of Drainage of Floors	1	1	...	...
Sanitary Accommodation—				
Insufficient ...	1	1	...	...
Unsuitable or Defective	1	1	...	...
Not separate for sexes	1	1	...	...
Total ...	5	5	...	...

BIDDULPH URBAN DISTRICT.

Note.—The matter found on pages 5 to 14, inclusive, is to be read as a part of this Report.

Area.—Unchanged.

Particular Features.—There are no Public Institutions in the District, (save the temporary Isolation Hospital); no Canals; and no Common Lodging Houses.

Population.—An examination of the rate-book in January, 1908, disclosed a list of 1453 inhabited houses, (there are rarely any empty). If the average number of inmates is 4·95 (as it was at last census) this represents a population of 7192. In view, however, of building operations, now in progress, Mr. Gibson thinks it would be safe to estimate the population at midsummer as 7400. Hence my adoption of this number. The estimate made twelve months previously was 7070, which seems very accurate when compared with 7192 as now ascertained, for a six months' later date. Increase is evidently going on steadily, and even somewhat rapidly.

Tables.—The thirteen Tables which have been prepared give a statistical history of the year, easy to be apprehended by the eye; and the body of this Report is in the main only a detailed comment upon them.

The average of the birth-rates rises from 34·4 to 34·9; that of the death-rates remains 15·6; that of the zymotic death-rates falls from 1·8 to 1·7; and that of the infant mortality figures from 132 to 130. The Rates for 1908 on the whole compare favourably with the averages. A slow but steady improvement is going on; and the standard is gradually being raised.

Comparative Position.—(Table 51). In 1907, which is the last year reported on by the County Medical Officer of Health, Biddulph was about 6th in order of merit, in the list of 37 Urban Districts. This is a great improvement on the 18th or 19th place, in 1906; and justifies the forecast which I ventured to make in my last Annual Report. It is the best position in the last twelve years, save only in 1901, when it was even a shade better. I venture to hope that 1908 will also, in its turn, be found to bear a favourable aspect.

Births.—(Table 48). The number registered was 143 males and 111 females, total 254. This is the highest number recorded, (Table 43), and corresponds to the increase in population. The Rate, however, 34·3, is 0·6 below the average. The Rate for the whole country is only 26·5.

Illegitimate Infants.—These numbered 5, or just upon 2 per cent. 1 death occurred, or 20 per cent. 21 deaths occurred among the 249 legitimate births, or 8·3 per cent.

Deaths.—(Tables 43, 45, 46, 49.) The number registered was 86, none of which can be discarded; and 3 have to be added, which occurred in Public Institutions outside the District. This gives a total of 89, and a Rate of 12·0. There is no smaller number in Table 43, save in 1898; and the Rate is the absolute lowest in the same. There were 51 males and 38 females. The Rate is 3·6 below the average; and is 2·7 below the figure for the whole country for 1908.

The seasonal distribution of the deaths, and the gradual building up of the Rate, are shown thus:—

	No. of deaths.	Actual Rate.
January	10	1·35
February	6	0·81
March	9	1·21
April	10	1·35
May	4	0·54
June	4	0·54
July	2	0·27
August	4	0·54
September	8	1·08
October	11	1·49
November	9	1·22
December	12	1·62
	89	12·02

Uncertified Deaths.—Two; a child two months old, ascribed to convulsions; and a man of 32 years, exophthalmic goitre.

Coroner's Inquests.—Only two were held in the District. In January a man (46 years) was killed by a fall of coal in a pit. In June a boy (10 years) was accidentally crushed between railway waggons.

One other death was the subject of an inquest held elsewhere.

Infantile Mortality.—Only 22 of the deaths were those of infants under one year; which compared with 254 births is as 87 to 1000. This is the best result in column 6, Table 43; and is 44 below the average; it is also 34 below the figure for the whole country for 1908.

(Note, the "figure," or calculated proportion to an assumed one thousand births, is just four times as large as the actual number of infantile deaths).

Table 46 gives the details of these deaths.

Mortality among Old People.—26 deaths were those of persons in advanced age; or 29 per cent. of all deaths.

Notifications of Infectious Disease.—(Tables 44 and 52). The total number is 30, (26 diphtheria and 4 scarlet fever),

which is very close to the average; though there are wide fluctuations in individual years. 3 cases of diphtheria proved fatal. "The steadily increasing prevalence" of this disease is again obvious. There have been 141 cases in the last 6 years, average 23.5; compared with 46 in the previous 13 years, average 3.5. This is not the only District, however, which shows this feature.

Isolation Hospital.—This was in use for 14 cases of diphtheria; being opened on March 9th until June 23rd, and again from July 19th to October 10th.

The new Joint Hospital has been built during the year, and is, at the time of writing, being furnished. It is hoped that it will be able to receive patients before the end of March, 1909. It has about 30 beds.

Deaths from Zymotic Diseases.—Besides the 3 deaths from diphtheria, there were 7 from measles and 7 from diarrhœa. This total has not often been exceeded; and the Rate, 2.3, is 0.6 above the average. The Rate for the whole country for 1908 was 1.3; so that in this particular matter the year has been a bad one for the District.

Small-pox.—No case has occurred in the County in 1905-6-7; and there has been none in Biddulph since 1894.

Vaccination.—(Table 50). In 1907, 212 children were vaccinated out of 238 surviving, or 90 per cent.; whilst if cases medically postponed, and those removed and traced, were ultimately vaccinated in the same proportion (which I see no reason to doubt), the percentage becomes 92; and as the percentages for the last 12 years are 90 (or 98), no doubt this largely explains the District's immunity from Small-pox.

Measles.—This disease was very prevalent during the latter part of the year. Most of the Schools were closed, some for as much as three months. This is a very serious interference with education; as is fully recognised by the Local Government Board in the elaborate rules which are laid down to guide Medical Officers of Health and to restrain them from advising closure without due consideration. Unfortunately the Education Department retains a regulation in its Code which allows Managers to close at their own pleasure, if covered by the advice of "any registered medical practitioner."

This was what happened in Biddulph. The Inspector became aware of a small percentage of the cases, after the epidemic had got a firm hold. No communication was made to me from any school. If it had been, it would have been of little use, as I had no machinery to put in motion. The result appears in the inclusion in Table 45 of seven deaths from measles. It was

generally hoped that the Christmas holidays would see the end of the epidemic; but unfortunately this has not proved to be the case.

The remedy in my opinion is to be found in three administrative measures, which County Councils and Government Departments should endeavour to get legalised, viz. :

- (1). Medical Officer of Health to be the only officer to have power to advise school-closure.
- (2). Head teachers to make a weekly return to Medical Officer of Health of absentees on account of sickness; and an immediate return of cases of infectious disease.
- (3). Medical Officer of Health to be empowered to obtain additional temporary assistance as required, for domiciliary visitation. (This refers to Districts where the only official staff consists of one Inspector of Nuisances).*

Scarlet Fever.—No deaths. Only 4 cases notified; 1 in January, and 3 in May. Table 52 shows that there has been no epidemic since 1899. My experience at Winsford (see pages 34, 35 of this Volume,) leads me to anticipate that this prolonged immunity may possibly be the prelude to a widespread epidemic in the near future. Hence I hope that our own hospital will be maintained in a condition to fit it for use in an emergency; the new Joint Hospital being of a size which might easily become congested under pressure.

Whooping-cough.—No deaths. Table 53 would seem to imply a permanent immunity from this ailment, there having only been 37 deaths in 19 years, (and 11 of those were in 1891).

Diphtheria.—26 cases, 3 deaths. 3 cases occurred in January, of which 1 died the day after being seen. 16 cases occurred in March, April, and May, of which 10 were removed to hospital, 2 dying within 24 hours of admission. 7 cases occurred from July 17th to November 3rd; 4 being removed to Hospital.

Careful enquiries failed to discover the cause of these attacks. Some were very mild, and it is almost certain that there were other slight cases, unrecognised, which are missing links in the complete chain. It is not satisfactory to have to make such suppositions, but most authorities now accept the idea, and I cannot at present see how such cases are to be dealt with.

Diarrhœa.—7 deaths occurred, all in children under the age of 2 years. 1 occurred in February, 1 in September, and 5 in

*At the meeting of the Council in January, 1909, item (3) was conceded to me; and by the co-operation of the County Education Committee, whose ready assistance I desire gratefully to recognise, item (2) was also put into operation. The result will form part of my next Annual Report.

October. I am inclined to attribute the last 6 to poison conveyed to milk (or other articles of food) by flies. This theory is now well-established.

Influenza.—1 death, in March.

Enteric Fever, Puerperal Fever, Erysipelas, and Enteritis.—All absent.

Phthisis.—Only 1 death; the average being $5\frac{1}{2}$. September, M., 51 years. This is a "record."

Other Tuberculous Diseases.—2 deaths; February, F., 35 years, laryngitis; July, M., 36 years, peritonitis.

Cancer.—6 deaths; 2 males, 4 females. Ages 47, 53, 63, 70, 75, 80 years. In 5 cases the digestive organs were attacked, and in 1 case the glands of the neck.

Respiratory Diseases.—16 deaths; Rate 2.2.

Heart Diseases.—7 deaths; Rate 1.0.

Accidents.—2 deaths; See "Coroner's Inquests."

Sewage Disposal Works.—It is over ten years since improvements became necessary. A scheme was prepared, (by Mr. G. B. Ford), which for some reason was not proceeded with. Since about 1901, another scheme has gradually been taking shape, and a year ago I reported that the Local Government Board had approved it, and sanctioned the necessary loan (£7,073). This included the purchase of $6\frac{1}{4}$ acres of land, and the construction of works thereupon, with the laying of numerous new sewers. Much delay had been caused by the apparently simple matter of obtaining the necessary powers to divert a footpath. Work on sewer-laying was commenced in 1908; and Mr. Gibson hopes to complete this reasonably early in 1909, and to have everything finished by the end of that year.

The Gillow Heath sewers are 9-inch, and the Bradley Green sewers 12-inch and 18-inch Mansfield patent self-centring stoneware socket pipes. The Works will consist of screening and detritus chambers, tanks, measuring chambers, and circular cinder filters with revolving sprinklers.

Water-supply; Scavenging; Cowsheds; and Factories and Workshops, are dealt with in the Inspector's Report.

Systematic Inspection.—As this requires the personal assistance of the Inspector, and as Mr. Gibson has been more than fully occupied with engineering matters in connection with water works and sewage works, during 1908 this has been temporarily in abeyance.

Local Government Board's Memorandum of Instructions; November, 1908.—In order to comply with these instructions,

it is necessary to mention certain further matters, though they are mainly such as have a permanent character, and, having been discussed in previous Reports, have not hitherto been considered to require Annual mention.

District.—A wide valley, falling from south to north; about 5 miles long by 4 wide. Agricultural; with one large iron and coal works; and some minor industries.

Occupations of Inhabitants.—Colliers, ironworkers, farmers, and minor occupations.

House Accommodation.—Improving; but not sufficient for all working classes.

Overcrowding not much in evidence during 1908. With a few exceptions, generally satisfactory.

Water Supply.—From springs, and by boring. Quality excellent. Majority of population supplied. Some farms and houses situated at a distance from the mains are dependent on wells. The village of Whitemoor is supplied by extension of the mains from Congleton.

Milk Supply.—From local producers. Condition of dairies and cowsheds improving each year. No "administration" beyond regular inspection of same.

Other Foods.—No complaints. Regular inspection of slaughter-houses.

Sewerage.—Reported on above.

Pollution of Stream.—Will practically disappear when new sewage works are completed.

Excrement Disposal.—Privy-middens in out-lying parts. Water-closets, and "Congleton peat-pails," in the principal centres of population. The latter system, frequently reported on in previous years, continues to be found the most satisfactory system for cottage property.

Removal of Refuse.—By a scavenging staff, under the direction of the Inspector.

Nuisances.—Remedied as found, generally by informal notice.

Schools.—Large new schools recently erected by the County Education Committee. Condition excellent. Water supply good.

Infectious Diseases.—See above.

Tuberculosis.—Voluntary notification in operation for 8 years. Only 1 case notified (1903); no action, beyond offering disinfection after deaths. Only 1 death in 1908. No hospital accommodation.

Notification of Births Act, 1907, is to be considered early in 1909.

Inspector's Report.—According to custom I append Mr. Gibson's report in his own words. And also "according to custom," but none the less heartily, I wish to acknowledge my indebtedness to him for his unfailing courtesy, and for the trouble he takes, in the midst of many other urgent matters, to carry out, promptly and efficiently, any instructions I may from time to time have to give.

T. W. H. GARSTANG,

February 25th, 1909.

D.P.H. Vict.



INSPECTOR'S REPORT.

I have pleasure in submitting my 10th Annual Report.

Infectious Diseases.—The year 1908 may be considered a fairly good one. The Infectious Diseases Hospital was opened for several Diphtheria Cases.

It is expected that in a few weeks the District will have the advantage of the new Isolation Hospital at West Heath, Congleton.

Scavenging.—This work proportionately increases with the population, but with systematic collection the work is carried out satisfactorily—complaints are almost a rarity.

Inspections.—These are made constantly all the year round, and it is with pleasure that I report that invariably there is little difficulty in having suggested improvements effected.

Sewers and Drains.—New Sewers and Drains continue to be laid. The Whitemoor District is completely sewered, and the new Storm Drain in Congleton Road has so far relieved the Main Sewer, that since it was laid, in spite of heavy storms, there has not been a single case of flooding.

The work of sewerage in connection with the Loan may be considered to be progressing fairly well. The whole of the Gillow Heath Sewer is completed, and the new Outfall Sewer to Bradley Green is carried up from the Outfall Works to Bog's Lane, and it may be confidently expected that by the end of March all the sewers will be laid.

Water Supply.—The water supply to the whole District is now uniformly good.

Biddulph Park is well able to supply all the District save Biddulph Moor.

The Brown Lees District, owing to the mains being so small, has not had for several years a satisfactory supply, but now enjoys an adequate supply.

The work of replacing the old mains with new ones of larger size was carried out successfully between the months of August and November, and the whole system is now in perfect working order.

I am sure that the Loan of £2,700, obtained for the renewal, is money wisely spent, both as regards the Council and the inhabitants at large.

Dairies and Cowsheds.—Regular inspections are made and structural improvements are constantly being effected. Several formal notices have been issued during the year, and with one exception the work has been carried out.

Slaughter and Bake-houses.—These are kept under constant supervision, and may be considered satisfactory. Another old Bake-house is removed, and a new one has been substituted.

Factories and Workshops.—These are regularly inspected, and during the year several improvements have been made.

S. GIBSON,

Surveyor and Inspector.



Knutsford Urban District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1908.

Population at Census, 1891, 4,663.

(4,266 exclusive of Workhouse and Gaol).

Population at Census, 1901, 5,172.

(4,686 exclusive of strangers in Public Institutions).

Increase, 420.

Estimated Population in middle of 1908, 6,511.

(5,600 exclusive of strangers).

Area of District in Acres (exclusive of area covered by water) $1,760 - 42 = 1,718$.

Number of Inhabited Houses, 966.

Average Number of Persons per House, 4.85. } At Census of
1901.

Institutions within the District receiving sick and infirm persons from outside the District: H.M. Prison. Union Workhouse.

Institutions outside the District receiving sick and infirm persons from the District: Hospital for Infectious Diseases at Baguley; Manchester Royal Infirmary, and other Hospitals.

Other Institutions, the deaths in which have been distributed among the several localities in the District: None.

Workhouse (Bucklow Union). Situated in this District.

Birth Rate per 1,000 living, 26.4.

Death Rate per 1,000 living, 12.3.

Death Rate from Seven Principal Zymotic Diseases, 1.2.

Deaths under one year in proportion to 1,000 Births, 81.

Each birth or death contributes to the Rate 0.17857.

TABLE 56.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1908 and Previous Years.

Name of District, KNUTSFORD (URBAN).

YEAR.	Population estimated to Middle of each Year.		BIRTHS.		Total Deaths Registered in the District.				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.	Nett Deaths at all Ages belonging to the District.			
	Gross Population including Workhouse and Gaol.	Nett Population excluding Workhouse and Gaol.	Number.	Rate.	Under 1 Year.		At all Ages.					Number.	Rate.	Number.	Rate.
					Number.	Rate per 1000 Births registered.	Number.	Rate.							
1898	5148	4560	126	27.6	25	198	127	...	49	43	.	84	18.4		
1899	5150	4602	103	22.4	14	136	133	...	57	50	...	84	18.2		
1900	5148	4644	130	28.0	17	131	154	...	88	76	...	82	17.7		
1901	5172	4686	124	26.4	14	113	131	...	68	61	...	70	14.9		
1902	5306	4738	126	26.6	8	63	103	...	53	48	3	58	12.2		
1903	5512	4780	137	28.7	21	153	126	...	70	63	1	71	14.8		
1904	5639	4850	129	26.6	18	139	128	...	57	49	...	79	16.3		
1905	5755	4900	117	23.8	12	103	123	...	65	55	...	66	13.5		
1906	5825	4950	110	22.2	7	64	117	...	71	55	3	65	13.1		
1907	6179	5310	124	23.3	12	97	99	...	46	39	2	62	11.7		
Averages for years 1898-1907	5483	4802	123	25.6	15	120	124	...	62	54	1	72	15.1		
1908	6511	5600	148	26.4	12	81	145	...	92	76	...	69	12.3		

TABLE 57.—(Local Government Board Table II.)
 Vital Statistics of separate Localities in 1908 and previous Years.
 Name of District, KNUTSFORD (URBAN).

NAMES OF LOCALITIES.	1.—URBAN DISTRICT.				2.—UNION WORKHOUSE.				3.—H.M. PRISON.				4.—TOTALS.			
	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each Year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1898	4560	125	78	25	247	7	6	...	341	...	...	...	5148	132	84	25
1899	4602	95	77	14	270	9	7	...	278	3	...	...	5150	107	84	14
1900	4644	130	70	17	274	7	12	...	230	2	...	...	5148	139	82	17
1901	4622	124	63	13	288	6	7	1	262	2	...	...	5172	132	70	14
1902	4660	126	53	8	280	10	5	...	366	1	...	...	5306	137	58	8
1903	4746	137	64	21	318	8	7	...	448	...	...	...	5512	145	71	21
1904	4816	127	71	17	353	15	8	1	470	...	...	...	5639	142	79	18
1905	4867	117	56	12	360	11	10	...	528	...	...	...	5755	124	66	12
1906	4913	108	50	6	371	14	15	1	541	...	...	...	5825	122	65	7
1907	5273	122	55	12	381	13	7	...	525	...	...	...	6179	135	62	12
Averages of years 1898 to 1907.	4770	121	64	15	314	10	8	...	399	...	...	...	5483	132	72	15
1908	5563	148	53	11	393	7	16	1	555	...	...	...	6511	148	69	12

TABLE 58.—(Local Government Board Table III.)
Cases of Infectious Disease notified during the Year 1908.
Name of District, KNUTSFORD (URBAN).

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.			NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.			Total Cases Removed to Hospital.	
	At all Ages.	At Ages—Years.					DISTRICT.	WORK-HOUSE.	GAOL.	DISTRICT.	WORK-HOUSE.	GAOL.		
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.								65 and upwards.
Small-pox ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Croup)	1	..	..	1	..	..	1	..	..	..	..	..	..	1
Erysipelas ...	1	..	..	..	..	..	1	..	..	..	..	..	..	..
Scarlet Fever	10	1	8	..	1	..	10	..	..	..	..	..	..	8
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	2	..	1	..	1	..	2	..	..	..	..	..	..	1
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague ...	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ...	14	1	9	1	2	1	14	..	..	..	..	..	10	10

TABLE 59.

(Local Government Board Table IV.)

Causes of, and Ages at, Death during Year 1908.

Name of District, KNUTSFORD (URBAN).

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "Residents" belonging to Localities, whether occurring in or beyond the District.			Total Deaths whether of Residents or non "Residents" in Public Institutions in the District.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	District	Workhouse	Gaol	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...
Measles	3	...	3	...	...	...	...	3	...	...	...
Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...
Whooping-cough... ..	1	...	1	...	...	...	...	1	...	...	...
Diphtheria (including Membranous Croup) ... ..	...	...	...	...	...	...	...	...	...	...	...
Croup ... ..	...	...	...	...	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...	...	...	...	...
{ Enteric	1	...	...	1	...	...	...	1	...	...	...
{ Rheumatic	1	...	...	...	...	1	...	1	...	...	...
Epidemic Influenza	2	...	...	...	...	1	1	2	...	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa	2	2	...	...	...	...	...	2	...	...	...
Enteritis	2	...	1	...	...	...	1	2	...	...	...
Puerperal Fever ... ..	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...
Phthisis	1	...	...	...	...	1	...	1	...	...	6
Other Tubercular Diseases	3	1	1	...	1	...	...	3	...	...	1
Cancer, Malignant Disease ... ..	...	...	...	...	...	...	...	...	...	...	2
Bronchitis	9	2	...	...	...	2	5	4	5	...	8
Pneumonia	4	...	1	...	...	2	1	3	1	...	2
Pleurisy ... ..	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respiratory Organs	1	...	...	...	...	...	1	1	...	...	1
Alcoholism ... ..	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver }	2	...	...	...	...	1	1	2	...	...	2
Veneral Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...
Premature Birth ... ..	...	...	...	...	...	...	...	...	...	...	...
Diseases and Accidents of Parturition	1	...	...	...	...	1	...	1	...	...	...
Heart Diseases	8	...	...	...	...	5	3	7	1	...	14
Accidents	4	...	...	...	...	2	2	2	2	...	3
Suicides ... ..	...	...	...	...	...	...	...	...	...	...	...
Debility, &c.	3	3	...	...	...	...	...	3	...	...	2
Convulsions, &c.	5	4	1	...	...	...	...	4	1	...	2
Cerebral Diseases... ..	5	...	...	...	...	1	4	5	...	...	9
Old Age	8	...	...	...	...	1	7	2	6	...	29
Legal Execution ... ..	...	...	...	...	...	...	...	...	...	...	1
All other causes	3	...	...	...	...	3	...	3	...	...	9
All causes	69	12	8	1	1	21	26	53	16	...	91

TABLE 60.

(Local Government Board Table V.)

Infantile Mortality during the year 1908.

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

Name of District, KNUTSFORD (URBAN).

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 One Year.
All Causes.	Certified	3				3	2	2	3					1		1		12
	Uncertified																	
Common Infectious Diseases.	Small-pox																	
	Chicken-pox																	
	Measles																	
	Scarlet Fever																	
	Diphtheria : Croup																	
Diarrhoeal Diseases.	Whooping Cough																	
	Diarrhoea, all forms																	
	Enteritis, Muco-enteritis, } Gastro-enteritis }						1	1										2
Wasting Diseases.	Gastritis, Gastro-intestinal Catarrh }																	
	Premature Birth																	
	Congenital Defects	1				1												1
	Injury at Birth																	
Tuberculous Diseases.	Want of Breast-milk																	
	Atrophy, Debility, } Marasmus }							1	1									2
	Tuberculous Meningitis																	
	Tuberculous Peritonitis : } Tabes Mesenterica }													1				1
	Other Tuberculous Diseases }																	
Other Causes.	Erysipelas																	
	Syphilis																	
	Rickets																	
	Meningitis } (not Tuberculous) }								1									1
	Convulsions	2				2	1											3
	Bronchitis								1							1		2
	Laryngitis																	
	Pneumonia																	
Suffocation, overlaying																		
Other Causes																		
		3				3	2	2	3					1		1		12

District of Knutsford.

Population estimated to middle of 1908 . . . 5600.

Births in the year { legitimate ... 138 Deaths in the year { legitimate infants ... 11
 { illegitimate ... 10 { illegitimate infants ... 1

Deaths from all Causes at all ages, 69.

TABLE 61.

Shewing Births, Birth-rate, Deaths, and General and Zymotic Death-rates, and compared with average of last 10 years; and Deaths in Old Age and Infancy, and percentage of these to Total Deaths; for the Year 1908.

TOTAL,			BIRTH RATE.		DEATH RATE.				DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.	
Births.	Deaths	Zymotic Deaths	Average.	1908.	General.		Zymotic.		At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.
					Average.	1908.	Average.	1908.				
148	69	7	25.5	26.4	15.1	12.3	1.2	1.2	26	12	37	17

TABLE 62.

Births.

	M.	F.	Total.	Rate.	Of which Illegit.			Additional in Workhouse & Gaol.						
					M.	F.	Total.	Illegit.						
								M.	F.	Total.	M.	F.	Total.	
1st Quarter ...	16	15	31	22·2	1	1	2	0	0	0	0	0	0	0
2nd „ ...	18	24	42	30·1	0	2	2	1	0	1	1	0	1	1
3rd „ ...	17	22	39	27·6	3	0	3	2	0	2	1	0	1	1
4th „ ...	18	18	36	25·5	0	3	3	2	2	4	1	1	2	2
	69	79	148	26·4	4	6	10	5	2	7	3	1	4	4

TABLE 63.

Shewing Deaths, Death-rates, Deaths from Special Diseases, and Old Age and Infantile Deaths, in the Four Quarters of the Year, 1908.

QUARTER ENDING.	Total Deaths.	Rate.	DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.		Measles.	Enteric Fever.	Whooping Cough.	Diarrhoea.	ZYMOTIC DEATHS.		Phthisis.
			At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.					Total.	Rate.	
March 31	12	8·6	8	1	67	8	0	1	0	0	1	0·7	0
June 30	26	18·6	8	5	31	19	3	0	0	0	3	2·1	1
Sept. 30	10	7·0	3	2	30	20	0	0	0	0	0	0·0	0
Dec. 31	21	14·9	7	4	33	19	0	0	1	2	3	2·1	0
Total	69	12·3	26	12	37	17	3	1	1	2	7	1·2	1

TABLE 64.

Shewing position of Knutsford in the County in 1907, compared with 35 other Urban Districts.

	Best of 36 Urban Districts	Worst of 36 Urban Districts	Knutsford Figures.	Place of Knutsford in the List.
Birth Rate	39·3	13·2	23·3	17
Death Rate	8·0	19·2	11·7	9
Zymotic Death Rate	0·0	3·4	0·9	18
Infantile Mortality	32	187	97	16

TABLE 65.

Notifications of Infectious Diseases.

(No records prior to 1895).

Year.	Small-pox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Puerperal Fever.	Erysipelas.	TOTAL.
1895	—	17	—	1	—	3	21
1896	—	5	—	—	—	6	11
1897	—	2	—	—	—	1	3
1898	—	—	1	2	—	2	5
1899	—	62	—	3	1	2	68
1900	—	3	7	2	1	1	14
1901	—	7	5	2	—	1	15
1902	—	2	3	—	1	2	8
1903	4	7	6	1	1	6	25
1904	2	2	7	1	2	3	17
1905	—	2	4	2	2	4	14
1906	—	40	4	8	—	5	57
1907	—	52	4	6	1	1	64
Total of 13 years.	6	201	41	28	9	37	322
Average of 13 years	0·5	15	3	2	0·7	3	25
1908	—	10	1	2	—	1	14

TABLE 66.

Deaths from Infectious Diseases.

Year.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping- cough.	Enteric Fever.	Diarrhoea.	TOTAL.	Phthisis.	Puerperal Fever.	Erysipelas.
1890	—	—	—	—	—	—	—	—	7		
1891	—	1	—	—	—	—	1	2	4	No	
1892	—	6	1	—	3	—	—	10	2		
1893	—	—	2	—	—	—	1	3	3	Records	
1894	—	—	—	—	—	—	—	—	4		
1895	—	—	—	—	—	2	—	2	4	—	—
1896	—	—	—	—	3	—	3	6	—	—	—
1897	—	1	—	—	—	—	8	9	1	—	—
1898	—	—	—	—	—	—	10	10	6	—	—
1899	—	—	—	—	2	1	1	4	4	1	—
1900	—	—	—	2	—	2	3	7	4	1	—
1901	—	—	—	2	2	—	3	7	2	—	—
1902	—	3	—	—	—	—	—	3	5	1	—
1903	—	—	—	1	2	—	3	6	2	—	—
1904	1	—	—	—	1	1	2	5	3	1	—
1905	—	—	—	—	3	—	1	4	3	1	—
1906	—	5	1	—	—	2	1	9	2	—	1
1907	—	1	1	—	2	1	—	5	3	—	—
Total of 18 years	1	17	5	5	18	9	37	92	59	6	1
Average of 18 Years	—	1	0·3	0·3	1	0·5	2	5	3·3	0·3	—
1908	—	3	—	—	1	1	2	7	1	—	—

TABLE 67.

Summary of Sanitary Work done in the Nuisance Inspector's Department during the year 1908, in the Urban District of Knautsford.

		NUMBER OF		ABATEMENT NOTICES.		NUISANCES ABATED AFTER NOTICE BY			
		Inspections and Observations made.	Defects found.	Informal by Inspector.	Formal by Authority.	Inspector.	Authority.		
Dwelling-Houses and Schools.	Foul Conditions	numerous	1						
	Structural Defects								
	Overcrowding	numerous	all satisfactory						
	Unfit for Habitation								
	Lodging Houses	numerous	no complaints					2	2
	Dairies and Milkshops								
	Cowsheds	numerous	several several rem'd'd						
	Bakehouses... ..								
	Slaughter-houses	numerous	several several rem'd'd						
	Canal Boats								
Ashpits and Privies	numerous	Several remedied without formal notice, and one in hand at the present time.							
Deposits of Refuse and Manure									
House Drainage.	Water Closets	numerous	1	1	1				
	Defective Traps								
	No Disconnection	numerous	1	1	1				
	Other Faults								
	Water Supply	numerous	1	1	1				
	Pigsties								
	Animals improperly kept	numerous	1	1	1				
Offensive Trades									
Smoke Nuisances	numerous	1	1	1					
Other Nuisances									
TOTALS									
<i>Precautions against Infectious Disease.</i>							Nos.		
Lots of Infected Bedding Disinfected or Destroyed						1			
Houses Disinfected after Infectious Disease						after all cases			
Schools Disinfected after Infectious Disease						0			

January 29th, 1909.

WALTER J. DOWNES,
Inspector of Nuisances.

TABLE 68.

Annual Report of the Medical Officer of Health for the year 1908, for the Urban District of Knutsford, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prosecutions.
Factories ... (Including Factory Laundries.)	...	...	...
Workshops ... (Including Workshop Laundries.)	several		
Workplaces ...	...	...	...

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects		
		Remedied	Referred to H.M. Inspector.	Number of Prosecutions

Nuisances under the Public Health Acts:—

Sanitary Accommodation—

Insufficient	} none
Unsuitable or Defective	... ..
Not separate for sexes	... ..

4.—REGISTERED WORKSHOPS.

Class.	Number.
9 Bakehouses	105
Total number of Workshops on Register	105

KNUTSFORD URBAN DISTRICT.

Note.—The matter printed on pages 5 to 14, inclusive, is to be considered a part of this Report.

Area.—Unchanged.

Population.—I have again to thank the Governor of the Gaol and the Master of the Workhouse for their courtesy in supplying information as to the number of inmates in those Public Institutions. I am thus enabled to give as the “estimate” for each year the number which was the exact “daily average.”

After careful consideration I have come to the conclusion that the population of the District, exclusive of Public Institutions, has been under-estimated. (This will have a beneficial effect on the Rates, when corrections are made after the next Census). It was 4266 in 1891, and 4686 in 1901; an increase of 420 only. I estimated it as 4950 for 1906. Early in 1907 I ascertained that there were 1085 inhabited houses, besides 47 empty; and that at least 10 more houses then under construction would be occupied by mid-summer; and 1095 houses with an average population of 4·85 persons, gives a population of 5310. I do not feel justified in adopting any lower estimate than this; although it is an increase of 624 in 6 years, which shows more than twice the rate of increase that prevailed in the previous inter-censal period.

Then between 1907 and 1908 fifty new cottages were built under one scheme; besides a few independently; so that for 1908 I cannot adopt a smaller estimate than 5600. With these largely increasing numbers there must necessarily be an increased risk of error. One can only do one's best.

The Gaol contained an average of 555 prisoners; and the Workhouse an average of 372 paupers and 21 officers. The officers and 16 paupers are reckoned as belonging to the District; the remaining 356 paupers are the “foreign” population of the Workhouse. The total population is therefore 5600 + 555 + 356 or 6511. This figure will be found in Table 56 along with 5600; whilst in Table 57 the latter is replaced by 5563, and the Workhouse figure is correspondingly increased to 393. This explains the apparent discrepancy between Tables 56 and 57.

I am afraid it is a somewhat complicated calculation ; but I do not know how to simplify it, without sacrificing accuracy.

In the two Public Institutions very few births are recorded, but an unusually large number of deaths. I am careful to forward information to the Medical Officers of Health for the Districts concerned. The instructions of the Local Government Board, as to the preparation of the official Tables, are thus not only fulfilled, but even bettered.

Average Rates.—For 1907 the average birth-rate drops from 26·3 to 25·6 ; the average death-rate from 15·6 to 15·1 ; the average zymotic death-rate falls from 1·3 to 1·2, and the average infant mortality figure falls from 127 to 124. (See Table 56).

The decennial average, or standard of comparison, is thus slowly improving year by year ; and each fresh year therefore has to meet this higher standard for comparison.

Tables.—In Table 57 the births registered are gross numbers ; but the deaths are those belonging to Knutsford only. Deaths of strangers will be enumerated in a later paragraph.

Tables 56 to 68 contain a complete statistical history of the year 1908 ; and the body of the Report is in many items only a further commentary upon them.

Births.—(Table 62). The total number registered was 155, of which 7 (all occurring in the Workhouse) do not belong to Knutsford. 148 births give a Rate of 26·4 ; which is 0·8 above the average, and 0·2 above the Rate for Rural England and Wales, for 1908.

Deaths.—(Tables 56, 59, 60, 63). The total number registered was 52 in the District, 86 in the Workhouse, and 5 in the Gaol. Of these, 16 in the Workhouse nominally* belonged to Knutsford ; and 1 occurred in Monsall Hospital ; which gives a total of 69 belonging to Knutsford. This is equal to a death-rate of 12·3. This is 2·8 below the average ; and 1·5 below the Rate for Rural England and Wales for 1908. Following 1907, which was the lowest Rate in the Table, this is an evidence of genuine improvement ; though the sex and age conditions of the District are distinctly unusual ; and too much must not be made of mere figures, of “ crude ” rates.

*The township of Knutsford gets debited with more deaths than really belong to it ; for the Workhouse registers in the hospital as nominally belonging to “ Knutsford ” a number of vagrants who really belong elsewhere, and whose residence in Knutsford has extended perhaps only over a few hours ; at least so I understand. What is quite certain is that there were not 16 deaths in 1908 of pauper inmates who had been genuine residents in Knutsford.

The seasonal distribution of the deaths, and the building up of the Rate, are shown thus:—

	No. of deaths.	Actual Rate.
January	7	1·25
February	2	0·36
March	3	0·53
April	12	2·14
May	5	0·89
June	9	1·61
July	5	0·89
August	3	0·54
September	2	0·36
October	3	0·53
November	10	1·79
December	8	1·43
	69	12·32

The April figures include 3 deaths from measles, and the November figures one from whooping-cough and one from diarrhoea; otherwise there is nothing to account for the excess in those months.

Uncertified Deaths.—None. (None since 1900).

Coroner's Inquests.—These were held on the 5 prisoners dying in the Gaol; and on 2 Workhouse cases not belonging to Knutsford. Also on 4 cases in the District, and 3 in the Workhouse, as follows:—January 24th, F., 91 years; shock from fall downstairs. April 26th, M., 39 years, heart failure. April 26th, M., 41 years, syncope.* June 4th, F., 74 years, gangrene in broken leg, after a fall; an epileptic; July 7th, M., 14 hours, convulsions; July 18th, M., 38 years, injured by fall from bicycle; November 1st, F., 62 years, cerebral effusion after fall downstairs.

Infantile Mortality.—12 deaths occurred in children under 1 year of age, which is in the same proportion to the 148 births as 81 to 1000. This is 39 below the average; and 29 below the figure for Rural England and Wales for 1908. The average (Knutsford) figure for 5 years 1897–1901 was 150, for 5 years, 1902–6 was 104; in 1907 was 97, and now is 81. This is eminently satisfactory. If we bring the quinquennial periods up to date, the average for 1899–1903 is 119, and for 1904–8 is 97.

Notification of Births Act.—This Act has been adopted, and Nurse R. Hicks appointed on October 6th to act under my directions.

A list of all births registered since July 1st was obtained from the Registrar, as a foundation for immediate work. On

*This man was a stranger; no address could be ascertained; so I have to keep the death in the list, though it does not belong to the District.

December 18th the results of a little over two months' working were tabulated as follows :—

79 births ; of which 20 obviously do not require visiting (on account of known social position of parents). 3 had died, and 2 had removed, before the list was received. 50 had been visited ; of these 16 were found dirty, 10 improperly fed, 6 both dirty and improperly fed ; 1 died ; 7 improved ; 39 were still under observation.

These figures sufficiently indicate the need for inspection ; and thoroughly justify the Council in having adopted the Act.

Comparative Position.—(Table 64). For the year 1907, Knutsford was, according to a "paper" valuation of the various Rates, about 15th out of 36 Urban Districts in the County. This is better than the average ; indeed 1902 was the only year when the District held a better position.

Illegitimate Infants.—(Table 62). There were 10 illegitimate births among 148, or 6·7 per cent. This is just about the average, which is 7·0 per cent. One died, or 10·0 per cent. ; whilst 11 died among 138 legitimate births, or 8·0 per cent.

Mortality among Old People.—26 deaths ; or 38 per cent. of all deaths. The average is 32 per cent. for the last 8 years.

Notifications of Infectious Diseases.—(Tables 58 and 65). Only 14 notifications were received in 1908, a welcome change from the 64 and 57 of the preceding two years ; and 11 below the average of 13 years. None of the cases occurred in the Workhouse. 10 were scarlet fever, 2 enteric fever, 1 diphtheria, and 1 erysipelas.

Hospital Isolation.—8 cases of scarlet fever and 1 case of diphtheria were removed to the Baguley Sanatorium ; and 1 case of enteric fever to Monsall. The removals were thus 71 per cent. of cases (or 77 per cent. if the case of erysipelas be omitted) ; compared with 69 and 54 per cent. in 1907 and 1906.

The Council defrays all costs. No charge is made to the patient or parent.

Deaths from Zymotic Diseases.—(Tables 59 and 66). 1 from enteric fever, 3 from measles, 1 from whooping-cough, and 2 from diarrhœa, total 7 ; Rate 1·2, the same as the average.

Small-pox.—Absent.

Vaccination.—The Urban District forms, by population, two-thirds of the Knutsford Registration Sub-District of the Bucklow Union. For this combined area the vaccination returns for twelve years, 1896–1907, are given in the preceding Report for the Bucklow Rural District ; to which reference should be made, (page 56). From this it appears that in 1907

(not 1908), 178 children were vaccinated, out of 187 surviving; 2 being lost sight of. The percentage is over 95; and maintains the good repute of the District.

If those temporarily postponed be included the percentage is 99.

Measles.—3 deaths occurred, all in April. This would seem to point to a fairly severe, if brief, epidemic; but not only was no information sent to me, but I could get none when I asked the Inspector to report to me on any local prevalence. I should be glad if my readers would refer to the paragraph under this head in the preceding Biddulph Report.

Scarlet Fever.—3 cases in March; 1 each in January, February, April, May, June, July and December. This was the finish of the 1906-7 epidemic. There were no deaths. 8 of the cases were removed to Baguley. (40 cases in 1906, 52 in 1907).

Whooping-cough.—1 death in November. No other information. I find this the most unsatisfactory of all diseases from an administrative point of view. Information is difficult to obtain; isolation is never attempted; the ailment is of a prolonged and uncertain duration; parents are "fatalists."

Diphtheria.—1 case in February; removed to Baguley; recovered.

Enteric Fever.—1 case in January, in connection with cases in November, 1907, and alluded to in my last Report. Removed to Hospital, and died. 1 other case in November, probably contracted outside the District; recovered.

Influenza.—2 deaths; January and February; M., 62 years, F., 67 years.

Diarrhœa.—2 deaths; October and November; both under 1 year.

Enteritis.—2 deaths; April and December; 1 year and 72 years.

Erysipelas.—1 case, July.

Phthisis.—1 death; June; M., 30 years.

Other Tubercular Diseases—3 deaths. M., 17 years; M., 2 years; F., 8 months; all abdominal.

Cancer.—No deaths.

Respiratory Diseases.—14 deaths. Rate 2.5.

Alcoholism.—2 deaths. M., 74 years. F., 56 years.

Heart Diseases.—8 deaths. Rate 1.4.

Accidents.—See "Coroner's Inquests."

Systematic Inspections.—The District is so small, and so intimately known to the Inspector, that it receives attention every day. Having lived in it 15 years (up to 1900) I also know it well; and I make numerous visits each year.

As I am not now resident, I am entirely in the hands of the Inspector. I have received no information during 1908 of the existence of any conditions requiring my personal intervention.

Cemetery.—The number of burials, in the 7 years ending with 1908, has been 509.

Local Government Board's Memorandum of Instructions, November, 1908.—In order to comply with these instructions, it is necessary to mention certain further matters, though they are mainly such as have a permanent character, and, having been discussed in previous Reports, have not been hitherto considered to require annual mention.

Character of District.—A small purely residential town, in the midst of a rich agricultural district.

Occupations of Inhabitants.—Miscellaneous small trades to meet the requirements of residents.

House Accommodation.—Very little land is in the market; and the price is high. A colony of fifty cottages has recently been built; but I am informed that they are tenanted entirely by new comers from Manchester, &c.; so that they have had no effect in relieving the demand for cottages for the poorest classes. This is entirely a financial question. The Council gave it most serious and earnest consideration for several years, with special reference to Part III. of the Housing of the Working Classes Act 1890. The result was the establishment of the fact that a cottage could not be provided at a less rental than 5s. a week; whereas the real requirement is for a cottage at 2s. 6d. a week. Hence progress is impossible.

The majority of existing cottages are fairly satisfactory. A few of the oldest, (and Knutsford is a very old town), receive careful supervision, and are improved, or pulled down and re-built, as opportunity offers.

Water Supply.—From the impounding of a small stream which rises on Alderley Edge, some 8 miles away. Quantity sufficient. Quality unsatisfactory on chemical analysis, due to unavoidable pollution from the agricultural land through which the stream passes; but quite satisfactory if judged by the results of experience, inasmuch as no outbreak of illness in the town has ever occurred which could be attributed to the water supply.

Milk Supply.—Partly produced in the District; partly imported from the contiguous townships in the Rural District.

Character good ; cowsheds duly supervised and kept as clean as practicable ; no information as to tuberculous milk.

Other Foods.—No action.

Sewerage and Drainage.—Sufficient. Condition good. Treated at outfall works by chemical precipitation, and cinder filtration. No complaints from Mersey and Irwell Joint Committee.

Pollution of Rivers and Streams.—No rivers or streams.

Excrement Disposal.—Numerous water-closets. A few privy-middens. A few waste-water closets. The peat-pail system is recommended, and is largely adopted.

Removal of Refuse.—By scavenging department, under charge of the Inspector of Nuisances.

Nuisances.—None of any magnitude. Small matters generally remedied on informal notice.

Tuberculosis.—Voluntary notification ; a failure. No action ; no hospital accommodation.

Inspector's Department.—As will be seen from the other Reports in this Volume, I am accustomed to rely on the Inspector of Nuisances for a supplementary Report dealing with all such subjects as sewers, scavenging, nuisances, inspections, etc., together with statistics for the two Tables, (Sanitary Work, and Factories and Workshops), Nos. 67 and 68 in this Report. Mr. W. J. Downes was good enough to give me this assistance up to and including the year 1906 ; but it was missing in 1907 ; and is so now again in this Report for 1908. I am therefore unable to go into further details on these several matters.

T. W. H. GARSTANG,

March 3rd, 1909.

D.P.H., Vict.

Middlewich Urban District.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH FOR 1908.

Population at Census, 1891, 4,001.

Population at Census, 1901, 4,669.

Increase, 668.

Estimated Population in middle of 1908, 4,950.

Area of District in Acres (exclusive of area covered by water) 1,095.

Number of Inhabited Houses, 1,005.	} At Census of
Average Number of Persons per House, 4.7.		1901.

Institutions within the District receiving sick and infirm persons from outside the District: None.

Institutions outside the District receiving sick and infirm persons from the District: Union Workhouse, Northwich. Albert Infirmary, Winsford. Infectious Diseases' Hospital at Davenham.

Other Institutions, the deaths in which have been distributed among the several localities in the District: None.

Birth Rate per 1,000 living, 28.9.

Death Rate per 1,000 living, 16.4.

Death Rate from Seven Principal Zymotic Diseases, 1.6.

Deaths under one year in proportion to 1,000 Births, 182.

Hospital: Davenham.

Workhouse: Situated in Northwich.

Each birth or death contributes to the Rate 0.20202.

TABLE 69.

(Local Government Board Table I.)

Vital Statistics of Whole District during 1908 and Previous Years.

Name of District, MIDDLEWICH (URBAN).

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		Total Deaths Registered in the District.				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.	Nett Deaths at all Ages belonging to the District.	
		Number.	Rate.	Under 1 Year.		At all Ages.					Number.	Rate.
				Number.	Rate per 1000 Births registered.	Number.	Rate.					
1898	4470	163	36.4	26	159	71	...	No Public Institutions.	4	73	16.1	
1899	4537	161	35.5	34	168	84	...		2	80	17.6	
1900	4604	162	35.1	21	140	64	...		1	62	13.5	
1901	4669	147	31.5	26	177	67	...		...	68	14.6
1902	4753	179	37.7	26	145	87	...		2	87	18.3	
1903	4800	176	36.7	24	136	83	...		4	87	18.1	
1904	4850	150	30.9	30	200	91	7	98	20.2
1905	4850	167	34.4	20	120	77	4	78	16.1
1906	4850	163	33.6	21	129	57	8	65	13.4
1907	4950	143	28.9	14	98	70	9	79	15.9
Averages for years 1898-1907	4733	161	34.2	24	148	75	...	...	4	78	16.4
1908	4950	143	28.9	26	182	77	...	...	6	81	16.4

TABLE 70.—(Local Government Board Table III.)
Cases of Infectious Disease notified during the Year 1908.
Name of District, MIDDLEWICH (URBAN).

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							NO. OF CASES REMOVED TO HOSPITAL.
	At all Ages.	At Ages—Years.						
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	
Small-pox ...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)	9	2	6	...	1	...	6	...
Erysipelas ...	2	...	...	...	2	...	...	...
Scarlet Fever ...	3	1	2	...	...	...	2	...
Typhus Fever ...	2	1	1	...	...	...	2	...
Enteric Fever ...	...	...	...	...	...	...	...	...
Relapsing Fever ...	...	...	...	...	...	...	...	...
Continued Fever ...	...	...	...	...	...	...	...	...
Puerperal Fever ...	3	...	...	1	2	...	...	...
Plague ...	...	...	...	...	...	...	...	...
Totals ...	19	4	9	1	5	...	10	...

TABLE 71.

(Local Government Board Table IV.)

Causes of, and Ages at, Death during Year 1908.

Name of District, MIDDLEWICH (URBAN).

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Total Deaths whether of Residents or non "Residents" in Public Institu- tions in the District.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	
Small-pox ... ..	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...
Scarlet Fever ... ..	...	...	...	...	...	...	...
Whooping-cough... ..	5	3	2	...	...	...	...
Diphtheria (including Mem- branous Croup) ... ..	...	...	...	...	...	...	...
Croup ... ..	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...
{ Enteric ... ..	...	...	...	...	...	...	...
{ Other continued... ..	...	...	...	...	...	...	...
Epidemic Influenza	2	...	...	...	...	2	...	
Cholera ... ..	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...
Diarrhœa	3	3	...	...	...	...	...
Enteritis ... ..	...	...	...	...	...	...	...
Puerperal Fever ... ..	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...
Phthisis	3	...	1	...	1	1	...	
Other Tubercular Diseases	6	4	2	...	...	...	...
Cancer, Malignant Disease	8	...	...	...	1	4	3	
Bronchitis	3	1	...	...	...	1	1	
Pneumonia	10	4	3	1	...	1	1	
Pleurisy ... ..	...	...	...	...	...	...	...
Other Diseases of Respira- tory Organs ... ..	...	...	...	...	...	...	...
Alcoholism }	1	...	...	...	...	1	...	
Cirrhosis of Liver {	...	...	...	...	...	...	...
Venereal Diseases ... ..	...	...	...	...	...	...	...
Premature Birth	5	5	...	...	...	...	...
Diseases and Accidents of Parturition ... ..	...	...	...	...	...	...	...
Heart Diseases	7	...	...	1	...	2	4	
Accidents	4	1	1	...	...	1	1	
Suicides	1	...	...	...	...	...	1	
Debility, &c.	1	1	...	...	...	...	...
Convulsions, &c.	3	1	2	...	...	...	...
Cerebral Diseases... ..	7	1	1	...	...	2	3	
Old Age	5	...	...	...	...	...	5	
All other causes	7	2	...	...	1	2	2	
All causes	81	26	12	2	3	17	21	

NO PUBLIC INSTITUTIONS.

TABLE 73.

Shewing Births, Birth-rate, Deaths, and General and Zymotic Death-rates, and compared with average of last 10 years; and Deaths in Old Age and Infancy, and percentage of these to Total Deaths; for the Year 1908.

TOTAL.			BIRTH RATE.		DEATH RATE.				DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.	
Births.	Deaths	Zymotic Deaths	Average.	1908.	General.		Zymotic.		At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.
					Average.	1908.	Average.	1908.				
143	81	8	34·2	28·9	16·4	16·4	2·2	1·6	21	26	26	32

TABLE 74.

Births.

	M.	F.	Total.	Rate.	Of which Illegitimate.		
					M.	F.	Total.
1st Quarter	20	12	32	26·0	0	1	1
2nd „	16	24	40	32·4	0	0	0
3rd „	22	15	37	29·7	0	2	2
4th „	17	17	34	27·3	0	0	0
Total ...	75	68	143	28·9	0	3	3

TABLE 75.

Shewing Deaths, Death-rates, Deaths from Special Diseases, and Old Age and Infantile Deaths, in the Four Quarters of the Year, 1908.

QUARTER ENDING.	Total Deaths.	Rate.	DEATHS.		PERCENTAGE TO TOTAL DEATHS OF DEATHS.		Whooping Cough.	Diarrhoea.	ZYMOTIC DEATHS.		Phthisis.
			At 65 Years and upwards.	Under One Year.	At 65 Years and upwards.	Under One Year.			Total.	Rate.	
March 31	22	17·7	8	7	36	32	0	0	0	0·0	0
June 30	20	16·2	5	6	25	30	0	0	0	0·0	2
Sept. 30	15	12·0	4	6	27	40	0	2	2	1·6	0
Dec. 31	24	19·2	4	7	17	29	5	1	6	4·8	0
Total	81	16·4	21	26	26	32	5	3	8	1·6	2

TABLE 76.

Vaccination.

Year.	Number of Births Registered.	Successfully Vaccinated.	Insusceptible.	Had Small-pox.	Dead. Unvaccinated.	Postponed on Medical Certificate.	Removed, and Traced.	Removed, and Lost.	Conscientious Objections.	Unaccounted for.
1896	269	242	—	—	21	3	—	3	—	—
1897	267	234	1	—	23	2	1	3	3	—
1898	240	204	1	—	21	4	1	4	4	1
1899	219	184	3	—	23	1	1	3	1	3
1900	250	210	1	—	26	—	1	5	3	4
1901	225	195	2	—	22	—	2	—	3	1
1902	256	227	—	—	23	2	1	1	1	1
1903	246	211	—	—	23	1	—	6	2	3
1904	228	189	1	—	27	2	6	—	2	1
1905	228	205	1	—	15	3	—	3	1	—
1906	244	212	—	—	24	1	2	2	2	1
Total in 11 years	2672	2313	10	—	248	19	15	30	22	15
1907	209	183	1	—	13	2	4	—	2	—

TABLE 77.

Shewing position of Middlewich in the County in 1907, compared with 35 other Urban Districts.

	Best of 36 Urban Districts	Worst of 36 Urban Districts	Middle- wich Figures.	Place of Middle- wich in the List.
Birth Rate	39·3	13·2	28·9	6
Death Rate	8·0	19·2	15·9	31
Zymotic Death Rate	0·0	3·4	1·6	31
Infantile Mortality	32	187	98	17

TABLE 78.

Notifications of Infectious Diseases.

Year.	Small-pox.	Typhus.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Erysipelas.	Puerperal Fever.	TOTAL.
1890	—	—	—	—	—	—	—	—
1891	—	—	—	—	9	—	—	9
1892	—	—	—	1	—	—	—	1
1893	—	—	88	4	14	17	—	123
1894	—	—	7	1	7	9	—	24
1895	—	—	49	1	1	1	1	53
1896	—	—	55	2	2	8	—	67
1897	—	—	18	2	1	8	2	31
1898	—	—	11	3	2	2	—	18
1899	—	—	2	—	1	20	—	23
1900	—	—	4	2	—	6	—	12
1901	—	—	3	—	—	5	—	8
1902	—	—	11	10	3	11	—	35
1903	4	—	14	4	—	4	—	26
1904	—	—	5	67	—	7	1	80
1905	—	—	10	39	1	10	1	61
1906	—	—	4	31	3	9	1	48
1907	—	—	10	37	—	8	1	56
Total of 18 years.	4	—	291	204	44	125	7	675
Average of 18 years	0·2	—	16	11	2	7	0·4	37
1908	—	2	3	9	—	2	3	19

TABLE 79.

Deaths from Infectious Diseases.

Year.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping- cough.	Diarrhoea.	TOTAL.	Phthisis.	Puerperal Fever.	Erysipelas.
1890	—	—	—	—	—	3	3	3	—	—
1891	1	1	1	—	6	5	14	6	—	—
1892	—	—	—	—	—	1	1	5	1	1
1893	4	3	3	1	—	6	17	4	—	1
1894	1	—	—	—	—	2	3	2	—	—
1895	1	1	—	—	7	5	14	8	1	—
1896	3	2	1	—	4	5	15	2	—	—
1897	—	—	—	6	1	4	11	4	1	—
1898	1	1	1	—	4	9	16	4	—	—
1899	—	—	—	—	—	13	13	3	—	—
1900	1	1	—	—	—	—	2	1	—	—
1901	—	—	—	6	1	5	12	7	—	—
1902	—	7	1	—	—	2	10	4	—	—
1903	—	1	—	—	3	4	8	2	—	—
1904	—	8	—	9	1	3	21	5	—	—
1905	—	11	—	1	1	4	17	1	—	1
1906	—	—	2	—	—	4	6	8	—	—
1907	—	3	—	3	—	1	7	7	—	1
Total of 18 years	12	39	9	26	28	76	190	76	3	4
Average of 18 Years	0·7	2	0·5	1·4	1·5	4	11	4	0·2	0·2
1908	—	—	—	—	5	3	8	2	—	—

TABLE 80.

Summary of Sanitary Work done in the Nuisance Inspector's Department during the year 1908, in the Urban District of Middlewich.

		Inspections and Observations made.	Formal Notices by Authority.	Nuisances Abated after Notice.
Dwelling-Houses and Schools.	{ Foul Conditions }	321	10	Nuisances abated after calling attention by the Inspector.
	{ Structural Defects }			
	{ Overcrowding }			
	{ Unfit for Habitation }			
	Lodging Houses	32	...	
	Dairies and Milkshops ... ..	...	...
	Cowsheds	58	...	
	Bakehouses... ..	30	...	
	Slaughter-houses	88	...	
	Canal Boats	64	6	
	Ashpits, Privies and Water Closets	480	...	
Deposits of Refuse and Manure ...	41	3		
House Drainage.	{ Defective Traps }	39	...	36
	{ No Disconnection }			
	{ Other Faults }			
	Water Supply ... ..	...	...
	Pigsties ... ..	...	...
	Animals improperly kept ... ..	...	...
	Offensive Trades	7	...	
	Smoke Nuisances ... ..	...	...
Other Nuisances ... ..	...	...
TOTALS		1420	19	...
				Nos.
Samples of Water taken for Analysis				1
<i>Precautions against Infectious Disease.</i>				
Lots of Infected Bedding Disinfected or Destroyed				5
Houses Disinfected after Infectious Disease				16
Schools	ditto	ditto	for Whooping Cough	3

THOMAS HENSHALL,
Inspector of Nuisances.

January 18th, 1909.

TABLE 81.

Annual Report of the Medical Officer of Health for the year 1908, for the Urban District of Middlewich, on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prosecutions.
Factories ... (Including Factory Laundries.)	12	1	...
Workshops ... (Including Workshop Laundries.)	...	...	...
Workplaces ...	...	...	...

2.—DEFECTS FOUND.

Particulars.	Found.	Number of Defects		Number of Prosecutions
		Remedied	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts:—</i>				
Want of Cleanliness ...	1	1	...	...
Sanitary Accommodation—				
Insufficient ...	...	...	...	...
Unsuitable or Defective	3	1	...	...
Not separate for sexes	...	...	...	...
Total ...	4	2	...	...

4.—REGISTERED WORKSHOPS.

Class.	Number.
Workshops ...	44
Bakehouses ...	5
Total number of Workshops on Register ...	49

MIDDLEWICH URBAN DISTRICT.

Note.—The matter printed on pages 5 to 14, inclusive, is to be read as part of this Report.

Area.—Unchanged.

Special Features.—See Special Report in Volume for 1905, page 47, most of which is applicable still; except that there is now a good supply of first-class water; the Isolation Hospital is firmly established; and new sewage-disposal works are under construction.

Population.—The estimate of 4950 is brought forward without alteration from the previous year.

Tables.—The thirteen Tables which have been prepared afford a very complete statistical history of the year. The average birth-rate further falls from 35·2 to 34·2; the death-rate from 16·5 to 16·4; the infant mortality figure from 156 to 148; and the zymotic death-rate from 2·4 to 2·2. The three latter point to a slight all-round improvement in the public health of the District.

Births.—(Tables 69 and 74). 75 males, 68 females; total 143; Rate 28·9. Both number and Rate are identical with those of 1907; and show a large decrease on those of ten years ago. The Rate for England and Wales for 1908 was 26·5, (for Country Districts 26·2).

Illegitimate Infants.—3 were registered among the 143 births; or 2·1 per cent. None died; whilst 26 deaths occurred among 140 legitimate births, or 18·6 per cent.

Deaths.—(Tables 69, 71, 72, 73). The number registered in the District was 77; and two of these can be discarded as having been notified to the Medical Officer of Health of the District they belonged to. Four occurred in the Workhouse, one in the Winsford Infirmary, and one in the Manchester Royal Infirmary, which have to be added; so the total is 81, which gives a Rate of 16·4. This is just equal to the decennial average; but it is above the Rate for England and Wales for 1908, which is 14·7

The seasonal distribution of the deaths, and the gradual building up of the Rate, are shown thus :—

	No. of deaths.		Actual Rate.
January	4	...	0·80
February	8	...	1·61
March	10	..	2·02
April	9	...	1·82
May	5	...	1·02
June	6	...	1·21
July	9	...	1·82
August	4	...	0·80
September	2	..	0·40
October	9	...	1·82
November	7	...	1·42
December	8	...	1·62
	81		16·36

Uncertified Deaths.—One; F., 6 years, syncope.

Coroner's Inquests.—These were held in 6 cases. May 22nd, M., 67 years, suicide by hanging, temporary insanity. July 22nd, F., 1 month, overlaid. October 17th, M., 57 years, accidentally drowned in canal. October 18th, F., 2½ years, whooping-cough, and want of medical attendance. December 10th, M., 5 months, pneumonia. December 25th, F., 72 years, pneumonia, following burns, received through a fall.

Comparative Position.—This applies to 1907, when the District appears to have ranked about 21st out of 36.

I have in my possession many of the figures for a series of 30 years. Bucklow is a large Rural District; Biddulph is Rural in most points, though nominally Urban; Knutsford has entirely different local circumstances; so that comparison with Middlewich is not possible. But Winsford, with a little more than twice the population, is only 4 miles away, and is in many respects quite fairly comparable.

	Death Rate.		Zymotic Death Rate.		Infantile Mortality Figure.	
	W.	M.	W.	M.	W.	M.
10 years 1878-87	18·6	22·1	3·0	3·0	144	174
do. 1888-97	16·3	17·2	1·7	1·8	144	160
do. 1898-1907	14·5	16·4	1·6	2·2	126	147
1908	15·4	16·4	2·0	1·6	156	182

Taking all 30 years together, (which is certainly long enough to eliminate any accidental circumstances,) Middlewich has a death-rate of 18·6, Winsford 16·5; Middlewich has a zymotic

death-rate of 2·3, Winsford 2·1; Middlewich has an infant mortality figure of 160, Winsford 138. From these results it is sufficiently evident that there is plenty of room for improvement at Winsford; and yet Middlewich has the worst of it in every comparison.

Explanations have been suggested from time to time, in Annual Reports; from Dr. Fox's time to my own.

Sanitary improvements are being made; but certain very ancient conditions, due to original bad planning, seem to be almost impossible to deal with.

(See Reports, 1905-6-7.)

Infantile Mortality.—(Tables 69 and 72). This was the best feature in the statistics for 1907. Now it is the worst in those for 1908.

Violent fluctuations of this kind are easily produced where a small population is being considered; and are therefore not really as important as they at first appear.

It is none the less unfortunate that 26 children should have died in the year, at less than one year of age. The various causes are set out in detail in Table 72. At least one-third of these deaths might have been avoided by better nursing and care. 26 bears to 143 the ratio of 182 to 1000. Except for the 200 of 1904 this is the worst ratio of the past ten years.

Notification of Births Act.—This is to be adopted early in 1909. The services of the District Nurse are to be obtained for inspection of babies and instruction of mothers; of course acting as an officer of the Council, and under my supervision.

Mortality among Old People.—The number of deaths at 65 years of age and upwards was 21, or 26 per cent. of all deaths.

Notifications of Infectious Diseases.—(Tables 70 and 78). These were only 19; a very welcome relief to the figures of the preceding 4 years; and only one-half of the average number of the whole 18 years. They include, for the first time, 2 cases of typhus fever; 9 of diphtheria, 3 of scarlet fever, 3 of puerperal fever and 2 of erysipelas. There were no deaths among these cases.

Isolation Hospital.—2 cases of typhus, 6 of diphtheria, and 2 of scarlet fever, were removed to hospital. This is 53 per cent. of all notifications; but as there is no hospital available for puerperal fever or erysipelas, the cases removed were 71 per cent. of those removable. There were no deaths in Hospital.

Deaths from Zymotic Diseases.—(Table 79). These were 5 from whooping-cough and 3 from diarrhoea. Total 8; Rate 1·6. The Rate for England and Wales for 1908 was 1·3, or, excluding the big towns, 1·0.

Small-pox.—Absent.

Vaccination.—I am again indebted to Mr. Worrall, the Vaccination Officer, for the figures for 1907 in Table 76. In the Middlewich Sub-District of the Northwich Union (of which the town of Middlewich forms about two-thirds) in 1907 183 children were successfully vaccinated out of 196 surviving; or over 93 per cent. During the 12 years 1896–1907 the percentage is 95.

Measles.—No information.

Scarlet Fever.—Only 3 cases, (and only 2 houses affected), 2 in June, 1 in August.

Whooping-cough.—5 deaths occurred, all in the fourth Quarter. In consequence of the fixed habit of the general public to look upon whooping-cough as of little account, no genuine efforts are as a rule made to enforce isolation. Information is late in reaching me, if it ever does so; and I am at a loss to know what I can do to check or modify an outbreak. This is certainly the most unsatisfactory ailment with which I have to deal, from an administrative and preventive point of view.

Diphtheria.—Only 9 cases have occurred during the year; and none were fatal. There were 2 each in May, June, August, and October; and 1 in December. (6 of them were removed to Hospital). The numbers for the preceding four years had been 67, 39, 31, 37; so that this is a very marked improvement. (See Annual Report 1907, page 107; and other previous Annual Reports). In the seven years now completed, this small town has had 197 cases, and 31 deaths. Facts, inferences, and opinions, as to causation and continuance, have been fully set out in previous Reports. It is a "fact" that the epidemic now shows signs of disappearance coincidently with the establishment of the new water supply. It may be a matter of "opinion" whether there is justification for the "inference" that the latter is the cause of the former.

Typhus Fever.—Two boys aged 6 and 4 years were notified on September 26th, and removed to Hospital the same day, whence they returned, recovered, on October 17th. The house was visited promptly by myself, and all possible enquiries made, but without throwing any light on the cause. There was some hesitation about the diagnosis by the practitioner in attendance. At a later date he felt justified in maintaining it; but as they are the first and only cases ever heard of in the District, and gave no further trouble, and everything about them is indefinite, I do not propose to discuss them further.

Enteric Fever.—No cases.

Influenza.—2 deaths; February and December.

Diarrhœa.—3 deaths, 2 in August, 1 in October. Ages : one, two, and four months.

Puerperal Fever.—One case in February, and two in April. The latter were attended by the same midwife. No deaths.

Erysipelas.—2 cases ; not important.

Phthisis.—3 deaths ; Rate 0·6. All males ; ages 3, 19, and 57 years.

Other Tuberculous Diseases.—6 deaths. Rate 1·2. 2 males, 4 females. Ages from 4 months to 2 years, (4 under one year). 4 cases called peritonitis ; 2 meningitis.

Cancer.—8 deaths. Rate 1·6. 3 males, 5 females. Ages from 24 to 83 years ; average 56 years. In 7 the disease was in some part of the alimentary canal ; in 1 in the breast.

Respiratory Diseases.—13 deaths ; Rate 2·6.

Alcoholism.—1 death. M., 36 years.

Heart Diseases.—7 deaths. Rate 1·4.

Accidents.—4 ; see "Coroner's Inquests."

Suicide.—1 ; ditto.

Local Government Board's Memorandum, November, 1908.—This annual reminder and instruction has now been re-written, and enlarged, and makes it compulsory on the Medical Officer of Health to refer specifically to various matters, many of which have been previously, but not annually, reported on. In the case of Middlewich, in particular, many of them will be found described, in words which are equally true to-day, in my Annual Report for 1905, page 47. These include **Physical features of District ; Occupations of Inhabitants ; House accommodation for Working Classes ; Pollution of Rivers ; Excrement disposal ; Removal of House Refuse ; and Nuisances.** It is therefore unnecessary to repeat these paragraphs.

Water Supply.—The new supply (1907) continues ample in quantity, and excellent in quality.

Milk Supply.—Produced in the District ; or brought in from contiguous townships in the Rural area. Character probably variable, because condition of cowsheds is known to be variable. These (within the District) are inspected. No other administration. No means of knowing anything about tuberculous milk.

A condensed-milk factory in the District receives some thousands of gallons daily ; but this is a separate matter altogether.

Other Foods.—No machinery for administrative action.

Sewerage, &c.—A large and costly scheme of sewage-disposal is being carried out. This is in the Surveyor's department, and in the hands of a Special Committee of Council. In my Report for 1907 I was able to give a paragraph supplied by the courtesy of the Chairman of that Committee. On no other occasion, before or since, has any other information on this subject come before me.

Systematic Inspections.—These have been renewed, during 1908. Mr. Thomas Henshall has been again appointed Inspector of Nuisances, (a post which he held up to 1901,) after an interval of $6\frac{1}{2}$ years. I have visited with him all classes of property; especially factories and workshops, which have become an important part of his work since his previous period of office. He has prepared Tables 80 and 81; and also submits a brief Report, which I have pleasure in appending.

T. W. H. GARSTANG,

March 3rd, 1909.

D.P.H. Vict.



INSPECTOR'S REPORT.

In presenting my first Annual Report for the year ending December 31st, 1908, I wish to thank the Council for the kind way in which they have received my reports, and also for dealing with the same. There has been a great deal of work done by owners of property in making the same fit for habitation without having to serve legal notices.

Slaughter-houses.—There are 12 registered in the District. During the year 2 have been registered after satisfying your Medical Officer of Health's requirements. These have been inspected regularly, and I have invariably found them very clean. When I commenced my duties I found that many of them had been allowed to place the blood and offal into the middens. This has been changed, and the garbage is placed in tins and removed from the premises within 24 hours.

Lodging-houses.—There are only 2 registered in the District, and these have been frequently inspected and found clean and well conducted. Formal notice was served on one person for using her house without being registered, and resulted in the house being ceased to be used as such.

Dairies and Cowsheds.—There are 36 registered Cowsheds and 7 Purveyors of Milk in the District. The Cowsheds have been regularly inspected, and only one was found infringing the Order, the infringement being want of light and ventilation. Notice was served upon the occupier, and this is now being dealt with.

Factories and Workshops.—There are 11 Factories, 44 Workshops, and 5 Bakehouses. They have been regularly inspected. Defects have been found and notices sent, or letters written to 5 persons, viz. : white-washing, 1; insanitary privy accommodation, 3; and provision for the separate accommodation for the two sexes, 1.

Scavenging Department.—This has been under my own personal supervision, and had previously been badly neglected in many parts of the town, ashes in some instances having been allowed to accumulate for 4 years. Nearly the whole of the ashpits have been cleared out four times since April, and I have been able to dispense with the ashes' cart 9 weeks since I commenced my duties in April last.

Night-soil Removal.—There are 1,065 houses in the District. The number of privy middens are 647; peat moss pails 280 (an increase on the year of 23); and 60 zinc pails.

Infectious Disease.—There have been 16 cases of infectious disease notified in the District during the past year, besides 3 of puerperal fever. Each house has been visited immediately the notification was received, and in most cases the patient removed to the hospital, the houses and bedding being disinfected, and in one instance the bedding destroyed.

Canal Boats.—The number of Canal Boats inspected during the nine months of my appointment, for the year ending December 31st, 1908, was 64.

The number of infringements of the Acts and regulations was six.

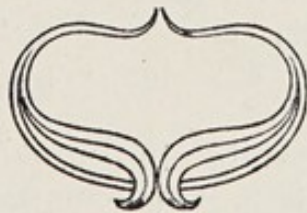
The number of persons met with was males 114, females 32, and children 16; most of the latter were of school age.

In my opinion this authority ought to be a registration port. There are a number of owners of boats in the District, and a good dock-yard at which a considerable number of Canal Boats are made, and these have to go to Stoke or Runcorn for registration purposes.

THOMAS HENSHALL,

Inspector of Nuisances.

January 25th, 1909.



Bucklow Joint Hospital Board.

This is not a Report under Art 18, (14) and (16), of the Local Government Board's Order; but is published at the suggestion of myself as Medical Adviser to the Board, by the permission of the Board, for the information of the various Authorities which comprise it.

General Infectious Diseases, (scarlet fever, diphtheria, and enteric fever), have been freely removed to the new Baguley Sanatorium, situated within the Bucklow Rural District, and now belonging to the Manchester Corporation. The Joint Hospital Board is entitled, by the original agreement, to the use of 35 beds.

By a further agreement which took effect from April 1st, 1907, the Board permits the removal of enteric fever cases to Monsall Hospital; the number of beds which can be claimed in Baguley and Monsall together is raised to 45; and 10 beds are allocated at the Small-pox Hospital at Clayton Vale. The Corporation resumes possession of the site at Newhall Green, purchases the temporary Small-pox Hospital there erected by the Board; also purchases the Board's Ambulances, and contracts, upon terms, to do all the Ambulance and Disinfecting work of the Board. In other words, the Board's District becomes entitled to share in all the benefits of the Manchester Corporation's Hospital arrangements.

By a still later agreement, which will be signed in 1909, puerperal fever cases will be admitted to Monsall Hospital.

Table 82 shows all details of Hospital treatment for 1908. The fatalities during the year exceed those of 1907; 9 deaths having occurred. Scarlet fever, 127 cases, 2 deaths, 1.6 per cent. Diphtheria, 26 cases, 5 deaths, 19.2 per cent. Enteric fever, 7 cases, 2 deaths, 28.6 per cent. Totals: 161 cases, 9 deaths; 7.1 per cent.

Including cases in Hospital on January 1st, and all admitted up to December 31st, 1908, it will be seen that Bucklow had 73 cases, Sale 30, Hale 22, Knutsford 16, Wilmslow 14, Alderley Edge 3, and Ashton-on-Mersey 3.

T. W. H. GARSTANG,

D.P.H. Vict.,

Medical Adviser to the Board.

March 4th, 1909.

TABLE 82.

Register of Patients removed to the Baguley Sanatorium and
Monsall Hospital, 1908.

DATE.	DISEASE.	BUCK-LOW.			Alder-ley.			Ash-ton.			Hale.			Knuts-ford.			Sale.			Wilm-slow.								
		Admitted	Discharged	Died	Admitted.	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died
Remaining from 1907.	Scarlet Fever	9			1			...			2			5			5			1								
	Diphtheria								
	Enteric Fever			1			1										
																										Remaining in 24		
1908 JAN.	Scarlet Fever	3	6								1		1	3		9	1	1	5	1								
	Diphtheria									3																		
	Enteric Fever												1	1	1													
																										Admitted 22		
																										Discharged 13		
																										Died 2		
																										Remaining in 31		
FEB.	Scarlet Fever	1	3		1					1			2		2			4										
	Diphtheria	1								1		1																
	Enteric Fever																											
																										Admitted 3		
																										Discharged 14		
																										Died 0		
																										Remaining in 20		
MAR.	Scarlet Fever		3										3	1		1	5		1									
	Diphtheria	5	2											1														
	Enteric Fever																											
																										Admitted 9		
																										Discharged 11		
																										Died 2		
																										Remaining in 16		
APR.	Scarlet Fever	4	1												6	5												
	Diphtheria	1	1							2													1	1				
	Enteric Fever																											
																										Admitted 12		
																										Discharged 9		
																										Died 1		
																										Remaining in 18		
MAY.	Scarlet Fever	1							1			1	2		3		2											
	Diphtheria	1	3																									
	Enteric Fever																											
																										Admitted 9		
																										Discharged 5		
																										Died 0		
																										Remaining in 22		
JUNE	Scarlet Fever		4						1			1	1		7		2											
	Diphtheria		4	1	1																		1					
	Enteric Fever								2																			
																										Admitted 11		
																										Discharged 13		
																										Died 1		
																										Remaining in 19		
JULY	Scarlet Fever	1	1			1			1	1		1	1		3		2											
	Diphtheria	3																										
	Enteric Fever								1																			
																										Admitted 7		
																										Discharged 9		
																										Died 0		
																										Remaining in 17		

DATE.	DISEASE.	BUCK-LOW.			Alderley.			Ash-ton.			Hale.			Knuts-ford.			Sale.			Wilm-slow.				
		Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died	Admitted	Discharged	Died		
AUG.	Scarlet Fever	...	...	...	1	...	...	1	...	2	...	1	2	...	1	...	...	1	...	...	...	Admitted	4
	Diphtheria	...	7	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	Discharged	14
	Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Died	0
	Puerperal Fever	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Remaining in	7
SEP.	Scarlet Fever	1	...	...	...	...	...	...	2	...	1	...	...	...	1	...	...	1	...	...	...	Admitted	4
	Diphtheria	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Discharged	4
	Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Died	0
	Puerperal Fever	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Remaining in	7
OCT.	Scarlet Fever	6	...	1	1	...	...	...	3	1	...	...	2	2	...	...	...	...	...	...	...	Admitted	12
	Diphtheria	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Discharged	6
	Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Died	0
		Remaining in																					13	
NOV.	Scarlet Fever	16	2	...	1	...	...	...	3	1	...	...	1	...	1	...	...	1	...	...	...	Admitted	23
	Diphtheria	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Discharged	4
	Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	Died	0
		Remaining in																					32	
DEC.	Scarlet Fever	11	8	1	...	...	1	...	4	4	...	1	...	2	...	...	...	...	...	...	...	Admitted	21
	Diphtheria	2	2	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	Discharged	15
	Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	Died	3
		Remaining in																					35	
TOTALS		52	29	1	3	3	...	2	1	17	11	...	13	12	...	29	27	1	11	10	...			
		20	14	5	...	...	...	1	...	3	3	...	1	1	...	1	...	...	...	...	...
Puerperal Fever		1	1	...	...	...	...	...	...	2	2	...	2	1	1	...	...	...	3	2	1		

	TOTALS.		
	Ad-mitted	Dis-charged	Died
Scarlet Fever	127	93	2
Diphtheria	26	18	5
Enteric Fever	7	5	2
Puerperal Fever	1	1	...
	161	117	9