

## **[Report 1906] / Medical Officer of Health, Shildon & Thickley U.D.C.**

### **Contributors**

Shildon and Thickley (England). Urban District Council.

### **Publication/Creation**

1906

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Shildon & East Thickley Urban District

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# REPORT

OF THE

## Medical Officer of Health

TO

THE SHILDON AND EAST THICKLEY

URBAN DISTRICT COUNCIL,

*For the Year ending, Dec. 31st, 1906.*

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S. FIELDEN,

M.D., M.R.C.S., L.R.C.P.,

Fellow of the Incorporated Society of Medical Officers of Health,

**MEDICAL OFFICER OF HEALTH.**

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H. BLAMIRE, Central Printing Works, Church Street, Shildon.



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TO THE SHILDON AND EAST THICKLEY  
URBAN DISTRICT COUNCIL.

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*Gentlemen,*

*I have the honour to submit my Report for  
the year 1906 :—*

### Population.

Estimated mid-year 1906 was 13,125.

The number of occupied houses was 3,023, and  
this gives an average of 4·34 persons for each house.

### Birth Rate.

509 Births were registered during the year  
(256 males and 253 females), against 460 in 1905,  
and 459 in 1904.

This represents a birth rate of 38·78 per 1,000  
of population, against 35·7 in 1905 and 36·4 in 1904.

## Death Rate.

264 deaths were registered in the district, and to these are to be added 9 of persons belonging to, but who died in Public Institutions outside the district, which brings the total to 273.

This represents a death rate of 20·8 per 1,000 of population against 19·2 in 1905 and 19·8 in 1904.

The deaths under the age of 1 year numbered 97, equal to a rate of 7·3 per 1,000 of population and of 190·5 per 1,000 births registered.

The deaths from the principal Zymotic diseases amounted to 68, equal to a rate of 5·18 per 1,000 of population against 2·7 in 1905.

Phthisis caused 19 deaths, equal to a rate of 1·44 per 1,000 of population.

The deaths from Bronchitis Pneumonia and Pleurisy numbered 34, equal to a rate of 2·59 per 1,000 of population.

Heart diseases were responsible for 22 deaths, equal to a rate of 1·67 per 1,000 of population.

4 deaths were caused by Injuries, including 2 the result of suicide.

The deaths which occurred in Public Institutions in the County were as follows :—

County Lunatic Asylum, Sedgefield	-	2
Infectious Diseases Hospital, Tindale Cres.		4
"                    "                    ,, Helmington Row		1
Union Workhouse, Bishop Auckland	-	1
"                    "                    Darlington	-	1
		--
		9

Of these 7 were males and 2 females.

The following Tables give :—

1.—The Vital Statistics for this District, the administrative County of Durham, and the whole of England and Wales.

	Per 1000 of Population.			Per 1000 Births.
	Birth Rate	G'neral D'th R.	Zymotic D'th Rate	Infantile Mortality Rate
Shildon & E. Thickley Administrative	38·78	20·8	5·18	190·5
County of Durham	35·2	17·5	2·40	157
England & Wales ...	27·0	15·4	1·73	133

In the administrative County the Boroughs of Gateshead, South Shields, Sunderland and West Hartlepool are NOT INCLUDED.

2.—The General Mortality at ages specified in 1906.

At all ages	Under 1 year.	1 to 5	5 to 15	15 to 25	25 to 65	65 to 70	70 to 80	80 to 90
273	97	28	17	14	68	14	21	14

## 3.—Cases of Infectious Disease notified in 1906 :

	Diphtheria	Erysipelas	Scarlet Fever	Enteric Fever
January	3	2	1	1
February	5	2	1	—
March	1	4	2	—
April	4	1	7	—
May	1	1	4	—
June	3	2	8	3
July	1	—	5	1
August	7	—	2	4
September	1	—	8	57
October	—	2	1	60
November	2	2	8	7
December	2	2	3	1
Totals ...	30	18	50	134

## 4.—Cases of Infectious Disease notified in :

	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896
Scarlatina	50	68	94	105	98	88	88	27	14	20	74
Diphtheria & Memb. Croup	30	55	59	143	33	3	4	6	4	—	3
Enteric Fever	134	32	45	16	15	39	18	44	36	34	17
Continued Fever ...	—	1	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	—	1	2	1	—	—	—	2	—	—	—
Erysipelas ...	18	12	10	13	13	11	9	8	13	14	11
Totals ...	232	169	210	278	159	141	119	87	67	68	105

5.—Cases of Infectious Disease notified at ages specified in 1906 :

	At all Ages.	Under 1 Year.	1 to 5	5 to 15	15 to 25	25 to 65	65 and over
Smallpox ...	—	—	—	—	—	—	—
Cholera ..	—	—	—	—	—	—	—
Diphtheria ...	30	—	8	16	5	1	—
Erysipelas ...	18	—	—	2	—	15	1
Scarlatina ...	50	—	9	33	7	1	—
Typhus ...	—	—	—	—	—	—	—
Enteric Fever ...	134	—	5	35	43	51	—
Relapsing Fever ...	—	—	—	—	—	—	—
Continued Fever ...	—	—	—	—	—	—	—
Puerperal Fever ...	—	—	—	—	—	—	—
Plague ...	—	—	—	—	—	—	—
Totals ...	232		22	86	55	68	1

During the year 89 cases of Infectious Diseases were removed to the Isolation Hospital at Tindale Crescent, viz :—

Enteric Fever ...	44
Scarlet Fever ...	26
Diphtheria ...	19
	—
Total ...	89

One case of Enteric Fever and one of Diphtheria were removed to the Isolation Hospital at Helmington Row.

6.—Population, Birth Rate, Death Rate, &c., for 2 Series of 10 years each. 1st Series. 1883—1892.

Year	Estimated Population at Mid-Year	Births	Rate per 1000 populat'n	Deaths under 1 year	Rate per 1000 Births register'd	Zymotic Deaths	Rate per 1000 populat'n	Deaths at all ages.	Rate per 1000 populat'n
1883	8879	368	41.4	58	158	27	3.00	182	20.5
1884	8967	387	43.2	59	152	23	2.56	169	17.9
1885	9055	356	39.3	53	149	17	1.87	175	19.3
1886	9143	335	36.6	41	122	20	2.19	151	16.5
1887	9232	367	39.7	60	163	15	1.62	167	18.1
1888	9320	337	36.1	44	130	6	0.65	160	17.2
1889	9408	359	38.2	71	198	36	3.83	193	20.5
1890	9496	326	34.3	56	170	27	2.79	177	18.7
1891	9587	412	42.9	70	169	27	2.81	227	23.3
1892	9790	371	37.8	51	137	10	1.02	162	16.5
Averages for 10 yrs. 1883-1892	9287	361.8	38.9	56.3	155.6	20.8	2.23	176.3	18.85

*2nd Series. 1893--1902 with those for 1903, 1904, 1905 and 1906 appended.*

Year.	Estimated Population at Mid-Year.	Births	Rate per 1000 populat'n	Deaths under 1 year.	Rate per 1000 Births register'd	Zymotic Deaths	Rate per 1000 populat'n	Deaths at all Ages	Rate per 1000 populat'n
1893	9997	355	35.5	85	239	82	8.3	253	25.3
1894	10209	342	33.49	49	143	7	0.68	145	14.2
1895	10425	393	37.6	77	195	31	2.97	195	18.6
1896	10645	326	30.6	43	131	19	1.78	160	15.0
1897	10871	350	32.1	56	160	15	1.37	180	16.5
1898	11101	356	32.0	80	224	33	2.97	192	17.2
1899	11336	383	33.7	70	182	26	2.28	205	18.0
1900	11576	353	30.4	55	155	18	1.55	188	16.2
1901	11821	404	34.1	76	188	48	4.06	206	17.4
1902	12071	385	31.8	53	137	11	0.91	163	13.5
Averages for 10 yrs. 1893-1902	11005	364.7	33.1	64.4	173.8	29	2.69	186	19.0
1903	12326	479	38.8	87	181	33	2.67	219	17.7
1904	12587	459	36.4	92	200	28	2.2	250	19.8
1905	12853	460	35.7	92	167	35	2.7	247	19.2
1906	13125	509	38.7	97	190.5	68	5.18	273	20.8

## INFECTIOUS DISEASES.

**Smallpox.**

No case reported.

**Scarlet Fever.**

Of this disease 50 cases were notified and 2 terminated fatally.

The disease for the most part was mild in character, so mild indeed in some cases, that it had been overlooked in the early stage and it was only on the occurrence of desquamation that the diagnosis was established.

It is very probable that some cases were not detected and that the disease was spread in this way.

**Diphtheria.**

30 cases were notified, resulting in 6 deaths.

It was difficult to assign any definite cause in many of the cases and there was reason to think that the disease had been spread in some cases by direct infection. Dirty surroundings were found in some cases. During the hot weather, too, it was common to find foul and offensive emanations from the street sewer ventilators. In several cases,

recourse was had to the use of Anti-Diphtheritic Serum, with excellent effect. With a view to reducing the mortality and preventing the spread of the disease, I would urge the Council to supply it gratuitously when required to medical practitioners in the district.

### Enteric Fever.

During the year 134 cases were notified, 19 of which had a fatal termination. This represents a mortality of 14.17 per cent. A reference to Table 3 shows that one case was notified in January; then there was a complete absence of the disease for four months. In June 3 cases occurred; in July 1 case; in August after the 24th, 4 cases were notified; while through the whole of September and October the disease became extremely prevalent, 57 having been notified in the former month, while in the latter 60 was the number. The disease then rapidly declined, 7 cases occurring in November and 1 in December.

Early in November, I presented the following special report with reference to this outbreak :—

#### I.—Water Supply.

This is good, efficient and abundant, and is supplied by the Weardale Water Co. The gathering grounds are situated high up in the Weardale Hills, and I have no reason to think that the water supply is contaminated.

Further, a considerable area of the County of Durham is supplied from the same source, and in that area Enteric Fever has not been markedly prevalent. It is also the sole supply in this district and no part of the district obtains its water from wells; and in the affected area, repeated enquiries have elicited the fact that there has been no breakage of pipes or leaking joints discovered, by which contamination might have taken place by insuction of infected material.

## II.--Drainage.

In the affected area of this district the main sewers have not sufficient fall, and this tends to produce sluggish flow and deposition of solid matter, with increased formation of sewer gas as a consequence.

During the prolonged hot dry weather many complaints were made of the smells coming from the manhole gratings. The house drainage is carried into these sewers, and in some cases the gullies and their settings were found to be defective. The pipes from Kitchen and Scullery sinks were in no instance found to be in direct communication with the house drainage. In the few instances in which water-closets are provided, the pipes leading therefrom were found to be properly ventilated and efficiently trapped.

## III.--Disposal of Excrement.

In the older property of the infected area—which for the most part is situated on the most low

lying portion of the whole district—excrement is disposed of by means of privy middens, some of which are open, others covered and ventilated, and in many cases they are too near to pantry windows and house doors.

In some cases of yards, common to several houses—one midden has to do duty for the whole of the occupants.

There are instances, too, where it is impossible for a cart to get to the ashpits, and the contents have to be wheeled down narrow passages. In all such cases water-closets should be provided; and small ash-closets should be substituted for privy middens—where they exist.

In the property recently built small ash-closets have been provided.

Many of the houses where this is the case are occupied by Railway men who have to provide their own coal, and consequently the amount of dry ash available for use in the Ash Closet is lamentably small. Further, in most of these cases the privies are barely sufficiently ventilated.

#### IV.—Probable Causes of the Epidemic.

Diarrhœa prevailed to a considerable extent before the outbreak of Enteric Fever, and it is highly probable that some cases regarded as diarrhœa were in reality mild Enteric Fever.

Some of the cases have no doubt been far from typical, and one case was notified in which the

patient--until 2 or 3 days before his death--had been able to walk about, the true nature of the case not having been previously recognised.

From this it is reasonable to infer that infective material had been discharged into privy middens and other receptacles for excrementitious matter and might even have found its way into the sewers. Into the sewers serving the Brickyard area the latrines at the Shildon Wagon Works unquestionably discharge.

In any of these positions the conditions were favourable for the preservation and possibly the multiplication of the Typhoid bacilli. The bacilli become incorporated with the dust and are scattered by the winds; and during the process of cleaning out privy middens large numbers of them are probably carried with the dust into the doors and windows of the neighbouring houses and there come to rest on the food and milk of the occupants. House flies, too, which were extremely numerous during the hot weather prevailing at the time, very probably conveyed large quantities of infective material and also contaminated the food of the people.

Several Typhoid patients complained of having got an extremely bad smell from the sewers and regarded this as the source of their ailment, and in some instances, at any rate, I am inclined to believe that they had received a dose of Typhoid poison in this way.

In the new Streets the sites have not been concreted, and the houses stand on a clay subsoil. In consequence of the prolonged drought, the subsoil

became dried and cracked, and it is reasonable to suppose that through these fissures the Typhoid bacilli found their way into the houses.

In what is known as the "Brickyard"—that is Richmond Street, Barraclough Street, part of South Street, &c., the houses have been built on "made" land—the underlying clay having been excavated and the cavity filled in with pervious material in the shape of rubbish of all kinds; and immediately to the west of this—just outside the Urban district—is a plot of ground precisely similar in every respect and without drainage of any kind, occupied by tumble-down erections which are used as Cow Houses, Stables, Piggeries, &c. Uncovered deposits of Manure, &c., are also to be found there.

All these insanitary conditions are calculated to spread diseases of every kind.

From the list of cases appended—giving Milk supply to each house—it will be seen that no particular Milk supply is markedly involved; although in the course of investigation it became evident that some of the Cowbyres, and what are used as Dairies, &c., do not receive so much care and attention as should be bestowed upon them.

## V.—Measures taken for checking Spread of the Disease.

The sewers during the whole of the hot weather were regularly and systematically flushed and disinfected with Perchloride of Mercury solution.

Ashpits were also disinfected in a similar manner.

Disinfectants, also, in the shape of Cyllin and Izal were freely supplied to all infected houses as well as special Typhoid tins for receiving excremental discharges.

As many cases as possible were removed to the Isolation Hospital at Tindale Crescent, and, the ordinary accommodation for such patients becoming overtaxed, the diphtheritic ward was requisitioned for the purpose, but this change involved a loss of 10 days.

One patient was sent to the Isolation Hospital at Helmington Row.

The District Nurse gave her attention to all the cases which could not be removed and when they became too many for her to deal with, an additional Nurse was appointed.

The objectionable Manhole Grating was blocked up and to relieve the pressure of Gas, 2 six-inch pipes were carried up high buildings at suitable points.

On the removal to Hospital or termination of any case, the premises were disinfected and the bedding used by the patient taken to the Hospital for disinfection.

Whenever bedding became seriously soiled it was destroyed.

In every notified case, too, the contents of the privy and ashpit were at once cleared and disinfected, and removed to the Destructor as were also, at frequent intervals, all the Typhoid Tins.

This work was done entirely by our own workmen, to prevent infected material passing through other hands.

Whenever insanitary conditions were found, notices were served for their abatement.

Appended to this report was a list of all the cases, giving sex, age, address, kind of closet provided, where isolated, result, observations, and milk supply.

### Measles.

A few cases occurred, of mild type, and no deaths resulted from this disease.

### Diarrhœa.

During the months of July, August and September, Diarrhœa prevailed to a considerable extent, and was responsible for 42 deaths, 32 of which were in infants under the age of one year, and 9 in children between one and five years of age. The long-continued heat of last summer favoured the development of the microbe which is the exciting cause of this disease, but neglect of ventilation, improper feeding, and uncleanly surroundings were predisposing factors and were constantly met with where the disease occurred.

## Whooping Cough.

This disease prevailed to a considerable extent and from it and its complications 3 deaths resulted.

## General Sanitation.

I have made frequent inspections of the District during the year, on many occasions being accompanied by your Surveyor, Mr Turnbull, and in some instances by Members of the Council.

The County Medical Officer of Health (Dr. Hill) has also been good enough to visit several parts of the district and has given me the benefit of his advice.

All notified cases of Epidemic Disease have been investigated, verbal and printed instructions have been given, and when any case has terminated or been sent to Hospital, the premises have been disinfected. Disinfectants were also supplied when necessary. In some instances soiled bedding was destroyed. Whenever insanitary conditions were found these were attended to without delay.

Much general sanitary work has been completed during the year. A number of the old midden privies have been demolished and replaced by Ash-Closets, and in some cases W.C's. have been introduced. A number of cases of structural defects in dwelling-houses have been rectified, and 5 cases of overcrowding have been dealt with.

A number of insanitary conditions in connection with Cow sheds and Milk shops have been improved.

Many defective traps in connection with house drainage, and other faults discovered there, have been rectified.

No great length of new sewer has been laid, but several old ones have been examined and made good where necessary. During the hot weather, the sewers received much attention and were raked out where necessary. Much flushing was done and disinfectants freely used. Ventilating shafts were put in in many places.

Many new streets—both back and front—have been made during the year, and many more are now receiving attention.

I feel bound to refer to the alarming increase in the Infantile Mortality rate for the third quarter of the year; this District occupying the unenviable position of being the highest in the County, with a rate equal to 412 per 1,000 births; the next two highest being 295 and 265 per 1,000 births respectively, while the lowest stood at nil, and the next above it at 75. In this connection I have long advocated the appointment of a Woman Inspector whose duties should be to advise, kindly and tactfully, as to the general sanitation of the house and its surroundings, and the feeding, clothing, and management of the infant. Public interest has been aroused by the prominence which has been given to the subject in the Press, and attention has been specially drawn to the very successful efforts made by the Mayor of Huddersfield, the Infantile Mortality rate having been reduced in that town to marvellous extent. At one of your recent meetings, this question

was discussed by the Council, and the decision arrived at to endeavour to co-operate with a neighbouring Council for the employment of the services of such a person; with what result I have not heard up to the present. But may I express the hope that you will not allow the matter to rest without further serious consideration?

### Sewage Disposal Works.

The recently constructed Works have served their purpose well, and so far as I know, the effluent has been satisfactory during the past year.

### Refuse Destructor.

The whole of the refuse of the District has been dealt with in a satisfactory manner.

### Scavenging.

The work on the whole has been fairly well done; but complaints—not without cause—have been made from time to time. An additional horse and cart has recently been got in order that the scavenging may be done at shorter intervals, and I trust this will overcome the difficulty. I should also state that the whole of the scavenging is done during the night and disinfectants are freely used.

### Cowsheds and Milk Shops.

This formed the subject of a special report in August last, in which I pointed out that only a small

proportion of the Cowsheds were built of stone or brick, most of them being only wooden erections. To my mind, it is extremely desirable that these should all be properly constructed stone or brick buildings, having sufficient area, cemented floors, efficient ventilation and lighting, with satisfactory drainage and a good water supply. The Milk shops are not by any means what one would desire ; in fact in every instance, a properly constructed dairy should be provided, with the necessary arrangements for the thorough scalding, washing and storage of the milk vessels. The Cowsheds and Milk shops have all been inspected from time to time, and any defects of drainage, insufficient ventilation, or want of cleanliness have, as far as possible, been rectified. The importance of a pure milk supply cannot be too strongly insisted upon, as there is not the slightest doubt that milk is frequently the means of conveyance of disease, more, particularly of Diarrhœa, Enteric Fever, Scarlatina Diphtheria, Phthisis, &c.

### Slaughter Houses.

These have been inspected from time to time, and with the exception of some minor defects, they were found to be satisfactory.

### Water Supply.

This is good, pure, and abundant.

### Factories and Workshops.

All the 14 Factories and 27 Workshops in the

District have been inspected on 3 separate occasions during the year. A few trifling defects were discovered, and these were at once remedied.

### Recommendations.

- 1.—To continue the demolition of privy middens.
- 2.—To continue the cementing or asphaltting of open spaces and back yards.
- 3.—To continue street making.
- 4.—To appoint a Woman Inspector for the District.
- 5.—To give attention to the erection of new Cow Sheds and Dairies.
- 6.—To supply Diphtheria Antitoxin gratuitously when required to Medical Practitioners in the District.

**Summary of Work done in Sanitary  
Inspector's Department In 1906.**

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*Public Health Acts—*

Notices served in consequence of :—

Structural defects in dwelling-houses	16
Overcrowding	5
Cowsheds	7
Ashpits and Privies	66
Deposits of Manure and Refuse	1
Water Closets	5
Defective Yard Paving	17
Defective Traps	6
No disconnection from sewers	1
Drainage (other faults)	24
Pigsties	2
Smoke Nuisance	2
Other Nuisances	9
Total	161

*Housing of Working Classes Act, 1896—*

Formal Notices served	...	...	...	...	1
Dwellings made habitable after Formal Notice					1

*Factory and Workshop Act, 1901—*

Action taken, Notices served, &c.	...	...	...	...	nil
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**Precautions against Infectious Disease.**

Lots of Bedding stoved	...	...	...	...	84
„ „ destroyed	...	...	...	...	6
Houses disinfected after Infectious Disease					188

I have duly filled in Statistical Forms and will forward the same to the Home Office, the L.G.B., County Council, &c.

I remain, Gentlemen,

Your obedient servant,

S. FIELDEN, M.D.,

M.O.H.