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1898.

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SOUTHWICK

Urban District Council.

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ANNUAL REPORT

ON THE

Health & Sanitary Condition of Southwick

BY

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OFFICERS OF HEALTH,

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SOUTHWICK :

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1899.



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# REPORT.

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*To the Chairman and Members of the Southwick  
Urban District Council.*

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GENTLEMEN,

In accordance with the orders of the Local Government Board, I beg to submit to you my report on your district for the year 1898.

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## POPULATION.

It is estimated that the population of the district at the middle of 1898 was 12,105, and on this all the calculations for the year are based.

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## BIRTHS.

The number of births registered during the year was 488, which represents a birth rate of 40·3 per thousand per annum of the population. Of the 488, 269 were males, and 219 females, and the total exceeds by 42 the number registered during the previous year.

Table showing Birth-rate for the past Five Years.

Year.	Males.	Females.	Total.	Birth Rate.
1894	216	209	425	38·5
1895	219	229	448	39·6
1896	225	222	447	38·7
1897	244	202	446	37·7
1898	269	219	488	40·3

## DEATHS.

The number of deaths registered in 1898 was 308. This yields a death rate of 25·4 per thousand per annum, and at once the question arises, What is the cause of this unsatisfactory result? In the course of this report the increased rate will be accounted for.

Table showing Death Rate for the past Five Years.

Year.	Deaths.	Rate.
1894	246	22·3
1895	211	18·6
1896	222	19·2
1897	225	19·0
1898	308	25·4

By the above table, comparing the figures for the past year with those for the years immediately preceding it, a marked increase in the death rate is shown, and on examining the age table, we find that the section of the population affected was infants and children. The increased rate was due entirely to the greater mortality among infants and children under five years of age, as is shown by the following table :—

Under 1 year .....	108	}	201
1 year and under 5 years .....	93		
5 years ,, 15 ,, .....	12	}	107
15 ,, ,, 25 ,, .....	6		
25 ,, ,, 65 ,, .....	60		
65 ,, and upwards .....	29		

The adult mortality, that is the number of deaths of persons between the ages of 5 and 65, was smaller in 1898 than in the previous year, and the old age mortality, which means the number of deaths of persons over the age of 65, was just equal to the average of the previous five years. These rates have varied very slightly in that period.

### Adult Mortality.

Ages between 5 and 65 years.

	Number of Deaths.	Rate.
1894 .....	65	5·8
1895 .....	66	5·8
1896 .....	72	6·2
1897 .....	84	7·1
1898 .....	78	6·4

### Old Age Mortality.

Age over 65 years.

	Number of Deaths.	Rate.
1894 .....	31	2·8
1895 .....	31	2·6
1896 .....	24	2·0
1897 .....	23	1·9
1898 .....	29	2·3

On looking over the following table which shows the number of deaths that occurred among infants under the age of one year, and among children between the ages of one and five years, a remarkable increase will be noted in the figures for 1898 when compared with those for the preceding years.

Year.	Under 1 year.	1 year and under 5 years.	Total.
1894	90	60	150
1895	80	34	114
1896	86	40	126
1897	76	42	118
1898	108	93	201

It is in the above table indicating the mortality among children that we find the increase in the death rate.

Of the total number of deaths 65 per cent. were those of children under five years of age. Only 5 per cent. of the total number were those of persons between the ages of five and twenty-five. It is apparent then that some maladies specially fatal to children infested the district during the past year.

Reference to the table of deaths at the end of the report shows that the diseases which wrought such havoc among children were Measles, Whooping Cough, and Diarrhœa, with the allied disorder Gastro Enteritis.

The number of deaths (29) due to Measles again illustrates the deadly character of this disorder among children. There were 15 deaths due to Whooping Cough, 16 deaths were classified as caused by Diarrhœa, and 31 by Gastro Enteritis. All the above were children under five.

Infantile Diarrhœa and Gastro Enteritis are preventable diseases, and ought not to exist. The organism which is the exciting cause of these diseases lives and thrives in soil polluted with animal matter, and when the temperature of the subsoil is raised to a certain point, such as it attained during the prolonged and excessive heat of last summer, it becomes very active, and getting access to the system through the air or along with the food, it, as the returns show, has a most deadly effect upon children. Overcrowding, lack of personal and domestic cleanliness, want of ventilation, improper feeding, all favour the attack of this organism ; but the main fact to note is that it is in a soil impregnated with filth that the organism is developed, This condition is essential to its existence. Open midden privies are a great evil, they pollute the soil and atmosphere, and are, I believe, largely responsible for the epidemic of Diarrhœa. Badly paved or partially paved yards only foster disease—they cannot be properly cleansed. Recognising this fact, all back areas ought to have an impervious coating of concrete, and ash closets should be substituted for privy middens.

It will be seen on referring to the summary of the work done in the Inspector of Nuisances Department, that there has been special activity in this department, and many beneficial changes have been effected, and improvements carried out in yards and middens.

It is to be noted that Measles contributed to the swelling of the death rate, but the same unwholesome conditions that induced Diarrhœa were largely responsible for the fatal effect of

the Measles epidemic. In sanitary surroundings Measles is not such a fatal disease as the death rate in this district would lead us to infer.

The number of deaths registered in the four quarters was as follows :—

1st quarter.....	54 deaths.....	=	.....17·6 death rate.
2nd „	..... 77 „	=	.....25·3 „
3rd „	.....102 „	=	.....33·5 „
4th „	..... 75 „	=	.....24·4 „

The following table shows the quarterly death rate and the annual death rate for the past five years :—

YEARS.	1ST QUARTER.		2ND QUARTER.		3RD QUARTER.		4TH QUARTER.		WHOLE YEAR.	
	Deaths	Death Rate	Deaths	Death Rate	Deaths	Death Rate	Deaths	Death Rate	Deaths	Death Rate
1894	48	17·4	49	17·9	78	28·3	71	25·7	246	22·3
1895	54	19·1	36	12·7	65	23·0	56	19·8	211	18·6
1896	50	17·3	63	21·8	59	20·4	50	17·3	222	19·2
1897	53	17·9	60	20·2	66	22·2	46	14·4	225	19·0
1898	54	17·6	77	25·3	102	33·5	75	24·4	308	25·4

## ZYMOTIC DISEASES.

During the year 132 cases of Infectious Diseases were notified. They are classified as follows :—

	1st Quarter.	2nd Quarter.	3rd Quarter	4th Quarter.	Total.
Scarlet Fever ...	5	4	12	42	63
Enteric ,, ...	2	10	12	36	60
Continued ,, ...	...	...	...	3	3
Erysipelas.....	1	2	1	2	6
Total.....	8	16	25	83	132

In the summer months Measles and Whooping Cough prevailed in the district, and, as has been noted in a former part of this report, the mortality from these causes was great.

In each of the four quarters of the year cases of Scarlet Fever occurred. The disease was very prevalent in the latter part of the year. Forty-one houses were affected.

In many cases the diagnosis was difficult owing to the mild character of the disease, but such cases which lack prominent symptoms, or in which they are very transient, are as efficacious in spreading the disease as the more severe types.

There was Typhoid in the district the whole of the year. In the autumn there is always an increase in the number of

cases, and last year this was very noticeable. Altogether there were 60 cases, and of this number 36 occurred in the last quarter of the year. In two or three cases the disease was contracted outside the district. Fifty houses were involved. Typhoid also is a disease dependent on animal matter for its existence, and the climatic conditions which prevailed during the autumn were specially favourable for its development. The open midden system is again to be regarded as responsible. In the majority of cases there was room for improvement in the way of domestic cleanliness. Usually the back yard showed some defect, in all but very exceptional cases, there was the offensive open midden.

The following table shows the number of cases notified during the past five years:—

DISEASE.	1894	1895	1896	1897	1898
Smallpox .....	nil	nil	nil	nil	nil
Scarlet Fever .....	37	8	10	48	63
Enteric Fever.....	36	24	7	18	60
Typhus Fever .....	nil	nil	nil	nil	nil
Continued Fever.....	1	1	nil	4	3
Diphtheria .....	2	2	1	2	nil
Puerperal Fever .....	2	1	nil	2	nil

### ZYMOTIC MORTALITY.

The death rate from Zymotic Diseases during the year was very high. Special circumstances were at work to produce this result. Three distinct epidemics invaded the district, each of which in itself was sufficient to influence the death rate very considerably, and collectively they had a very marked effect, as the following table will show:—

DISEASE.	Deaths in 1897.	Deaths in 1898.
Smallpox .....	nil	nil
Measles .....	7	29
Scarlet Fever.....	4	6
Diphtheria.....	nil	nil
Whooping Cough.....	6	15
Typhus Fever .....	nil	nil
Enteric Fever .....	1	6
Continued Fever .....	nil	nil
Diarrhœa .....	9	17
Gastro Enteritis .....	No entry	32

Last year there were 105 deaths from Zymotic Diseases, the main contributions to this result being Measles, Whooping Cough, and Diarrhœa, with Gastro Enteritis. We have to go back to 1894 to find a parallel to the death rate from Measles. In that year it was 2·4. Last year it was 2·39. In 1895 the rate for Diarrhœa alone was 2·2. Last year it was 1·4, but including Gastro Enteritis, the rate from which was 2·6, the total amounted to 4·04.

For the purposes of comparison, excluding the number of deaths from Gastro Enteritis, the Zymotic Death Rate for 1898 was 6·03. Including Gastro Enteritis, it was 8·6.

The following table records the number of deaths from Zymotic Diseases during the past five years:—

Disease.	1894	1895	1896	1897	1898
Smallpox.....	nil	nil	nil	nil	nil
Measles .....	27	2	9	7	29
Scarlet Fever .....	3	nil	2	4	6
Diphtheria .....	1	1	nil	nil	nil
Whooping Cough .....	1	nil	9	6	15
Typhus Fever .....	nil	nil	nil	nil	nil
Enteric Fever .....	7	3	1	1	6
Continued Fever .....	nil	1	nil	nil	nil
Diarrhoea .....	12	25	7	9	17
Gastro Enteritis.....	...	...	...	..	32
Total Zymotic Deaths .....	51	32	28	27	105
Deaths from other causes ..	195	179	194	198	203
Total .....	246	211	222	225	308

The death rates from Zymotic and general causes for the past five years are as follows. It is remarkable that the death rate from causes other than Zymotic Diseases was the same for the last three years.

Disease.	1894	1895	1896	1897	1898
Smallpox .....	nil	nil	nil	nil	nil
Measles .....	2·40	·17	·77	·59	2·39
Scarlet Fever.....	·27	nil	·17	·33	·49
Diphtheria .....	·09	·08	nil	nil	nil
Whooping Cough .....	·09	nil	·77	·5	1·23
Typhus Fever .....	nil	nil	nil	nil	nil
Continued Fever .....	nil	·08	nil	nil	nil
Enteric Fever.....	·63	·26	·08	·08	·49
Diarrhoea .....	1·8	2·21	·6	·76	1·40
Gastro Enteritis.....	...	...	...	...	2·64
Zymotic Rate.....	4·6	2·83	2·42	2·28	8·6
Rate from other causes ..	17·6	15·8	16·7	16·7	16·7
General death rate .....	22·3	18·6	19·2	19·01	25·4

Among general diseases Bronchitis, Pneumonia, and Pleurisy bulked largely as causes of death, 48 being so classified. Nineteen deaths were due to Phthisis; 6 deaths were attributed to Tubercular diseases other than Phthisis. The total number of deaths from Tuberculosis was fewer by 8 than the figures recorded for 1897.

Diseases of the Nervous system caused 12 deaths, and diseases of the Digestive system 60 deaths. There were 6 deaths from Cancer.

### INFANTILE MORTALITY.

As was to be expected from the nature of the epidemics, Infantile Mortality was high, being 221 per thousand births.

Marasmus and Alrophy caused 8 deaths, 14 were due to premature birth, and 27 to congenital debility.

### INQUESTS.

During the year 13 Inquests were held. Five deaths were returned as due to natural causes. Seven were the result of injuries accidentally sustained. There was one case of suicide.

### HOSPITAL.

Eleven cases, involving nine families, were treated in the Hospital. Two were cases of Typhoid and nine Scarlet Fever. One of the patients died of Scarlet Fever.

### SANITARY REPORT.

The following particulars of work done are extracted from the Surveyor's Report:—

In all 517 notices were served, of which 377 were complied with.

Among the Nuisances abated under the Public Health Acts were—

Foul conditions .....	2
Structural defects .....	222
Overcrowding .....	1
Ashpits and privies made impervious .....	46
Ashclosets substituted for privies and ashpits...	27
Deposits of refuse and manure.....	5
Waterclosets .....	3
Defective yard paving .....	102
Conditions relating to house drainage .....	85
"    "    Water supply .....	25
"    "    Pigsties .....	14
Smoke nuisances.....	1
Other nuisances .....	39

Precautions against Infectious Disease —

Lots of infectious bedding stoved or destroyed...	130
Houses disinfected after infectious diseases.....	130

Owing to the extension of the neighbouring shipbuilding yard, the present temporary Hospital will probably in the near future be no longer available, as it certainly will be unfit for the isolation or treatment of infectious cases. Your Council, recognising the pressing need of another Hospital, are taking active measures to provide a new building on a suitable site.

The continued gradual substitution of ash closets for open middens, and the use of concrete as a covering for back yards, would do much to improve the sanitary condition of your district. The more rapid disposal of the physical foulness which breeds and feeds disease, the more frequent emptying of the middens, would help to palliate the evils wrought by their presence.

Tables A and B are appended as required by the Local Government Board.

I have the honour to be,

Yeur obedient Servant,

JOHN J. CARRUTHERS,

Medical Officer of Health.

*February 10th, 1899.*

A.—Table of Deaths during the Year 1898, in the Southwick Urban Sanitary District, classified according to Diseases, Ages, and Localities.

NAME OF LOCALITIES adopted for the purpose of these Statistics; public institutions being shown as separate localities.	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.						
	At all ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards
SOUTHWICK .....	308	108	93	12	6	60	29
Totals .....	308	108	93	12	6	60	29

The subjoined numbers have also to be taken into account in judging of the above records of mortality.

Deaths occurring outside the district among persons belonging thereto.	15				1	7	7
Deaths occurring within the district among persons not belonging thereto.							



B.—Table of Population, Births, and of new Cases of Infectious Sickness coming to the knowledge of the Medical Officer of Health, during the Year 1898, in the Southwick Urban Sanitary District; classified according to diseases, Ages and Localities.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; Public Institutions being shewn as separate localities	POPULATION AT ALL AGES.		Registered Births
	Census 1891	Estimated to middle of 1898	
SOUTHWICK (H) ... ..	10226	12105	488
Totals.....	10226	12105	488

State here whether "Notification of Infectious Disease" is compulsory in the District. Yes Since when? September 1st, 1896. Besides the above mentioned Diseases, insert in the columns with blank headings the names of any other diseases that are notifiable in the District, and fill the columns accordingly. State here the name of the Isolation Hospital used by the sick of the District. Mark (H) the Locality in which such Hospital is situated; or if not within the District, state where it is situated. Southwick.

New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.

Number of such Cases removed from their Homes in the several Localities for Treatment in Isolation Hospital.

Aged under 5 or over 5.	New Cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.													Number of such Cases removed from their Homes in the several Localities for Treatment in Isolation Hospital.										
	1	2	3	4	5	6	7	8	9	10	11	12	13	1	2	3	4	5	6	7	8	9	10	11
	Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.													
Under 5	..	28	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
5 upwards	..	35	..	..	..	58	3	..	..	..	5	..	..	..	..	..	2	..	..	..	..	..	..	
TOTALS																								
Under 5	..	28	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
5 upwards	..	35	..	..	..	58	3	..	..	..	5	..	..	..	..	..	2	..	..	..	..	..	..	

Area and Population of the District or Division to  
which this return relates.

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Area in Acres .....	844·544
Population (last Census).....	10,226
,, Estimated to middle of 1898.....	12,105

*Death Rates :*

General .....	25·4 per 1,000 Population, <i>Estimated to middle of 1898.</i>
Infant (under 1 year of age),...	221 per 1,000 Births Registered.

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JOHN J. CARRUTHERS,

Medical Officer of Health.

*February 10th, 1899.*