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TWELFTH  
ANNUAL REPORT  
ON THE CONDITION  
OF THE  
COMBINED SANITARY DISTRICT  
OF  
WEST SUSSEX.

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BY  
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1886.

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# TWELFTH ANNUAL REPORT

ON THE

HEALTH OF THE COMBINED SANITARY DISTRICT OF  
WEST SUSSEX.

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RURAL SANITARY DISTRICT OF STEYNING.

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POPULATION, 14,060 IN 1871; 16,325 IN 1881. AREA IN  
ACRES, 45,969. NO. OF HOUSES, 2659 IN 1871; 3080 IN 1881.

POPULATION: There has been an increase in Aldrington during the past year, but in the other parishes the numbers have undergone very slight alteration; in many of the rural parishes the population seems to be stationary.

During the year 1885 the births of 524 children and the deaths of 260 persons were registered; of the births 276 were male and 248 were female; of the deaths 142 were male and 118 were female.

There were only 238 deaths registered in the rural sanitary district but to this number must be added the deaths of 22 persons who died in the New Shoreham Workhouse. These deaths have been distributed among the several parishes whence each person came, viz:—Patcham 2, Portslade 4, Southwick 6, Lancing 3, Sompting 2, Botolphs 1, Bramber 1, Upper Beeding 1, Woodmancote 1, Henfield 1, in all,—22.

In each parish the deaths were thus distributed:—Preston 1, Patcham 9, West Blatchington 1, Hangleton 1, Portslade 67, Aldrington 15, Southwick 42, Kingston 1, Lancing 12, Old Shoreham 3, Sompting 15, Coombes 0, Botolphs 1, Bramber 2, Steyning 28, Upper Beeding 12, Edburton 3, Poynings 1, Woodmancote 6, Henfield 26, Ashurst 5, Shermanbury 9, in all—260.

The births and deaths in the whole of the district during the past ten years have been as follows:—

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1876 ..	465	30·8	242	16·0
1877 ..	482	31·4	244	15·9
1878 ..	513	33·0	243	15·6
1879 ..	499	31·6	196	12·4
1880 ..	546	34·1	243	15·2
1881 ..	544	33·3	197	12·0
1882 ..	582	34·8	251	15·0
1883 ..	528	31·0	279	16·4
1884 ..	519	29·0	263	14·7
1885 ..	524	28·8	260	14·3

In each quarter the births and deaths were as follows:—

	Births.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
1st Quarter ..	78	65	143	36	35	71
2nd „ ..	58	68	126	32	27	59
3rd „ ..	77	55	132	35	26	61
4th „ ..	63	60	123	39	30	69
Total ..	276	248	524	142	118	260

The births in each quarter seem to be equally distributed when the mean of the past seven years is taken:—

	1879-83.	1884.	1885.	Total.	Mean.
1st Quarter ..	678	129	143	950	136
2nd „ ..	680	131	126	937	134
3rd „ ..	686	119	132	937	134
4th „ ..	655	140	123	918	131
Total ..	2699	519	524	3742	535

The following table shows the birth-rate in the more important parishes and in the rest of the district:—

	1877-83.	1884.	1885.	Mean of 1877-85.
Portslade Parish ..	39·6	36·5	38·0	39·1
Southwick Parish ..	34·3	28·4	29·1	33·1
Rest of Shoreham S. D.	27·4	25·3	24·7	24·6
Steyning Parish ..	31·8	26·2	24·4	30·4
Henfield Parish ..	29·0	28·4	28·4	28·9
Rest of Steyning S. D.	32·8	28·0	25·6	31·5
Total ..	32·7	29·0	28·8	31·9

The birth-rate is higher in the more populous places than in the smaller parishes, but in all cases there has been a marked reduction in the birth-rate during the past three years.

The *birth-rate* in 1885 throughout England and Wales was equal to 32·5 per 1000 persons estimated to be living in the middle of the year; it was lower than in any previous year since 1848, and it was 2·2 below the mean annual rate in the ten years 1875-84.

The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Total.
1st Quarter ..	17	7	2	2	17	26	71
2nd „ ..	7	9	2	6	17	18	59
3rd „ ..	17	8	2	2	8	24	61
4th „ ..	16	10	2	2	13	26	69
	—	—	—	—	—	—	—
Total ..	57	34	8	12	55	94	260

A comparative statement of the deaths in each quarter during the past ten years shows that the deaths are most numerous in the first quarter of the year.

	1876-83.	1884.	1885.	Total.	Mean.
1st Quarter ..	534	74	71	679	67·9
2nd „ ..	475	47	59	581	58·1
3rd „ ..	444	69	61	574	57·4
4th „ ..	442	73	69	584	58·4
	—	—	—	—	—
Total ..	1895	263	260	2418	241·8

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under 1 year.	Ratio to 1000 Births.
Portslade Parish.....	156	24	153
Southwick Parish .....	76	6	79
Rest of Shoreham Sub-Dist...	131	12	91
Steyning Parish .....	41	2	49
Henfield Parish .....	54	5	92
Rest of Steyning Sub-Dist....	66	8	121
	—	—	—
Total.....	524	57	108

The rate of infant mortality throughout England and Wales was equal to 138 per 1000, against 141, 137, and 147 in the three preceding years.

The following table shows the rate of infant mortality in the different localities during the past ten years :—

	1876-83.	1884.	1885.	Mean of 1876-85.
Portslade Parish . . . .	123	143	153	128
Southwick Parish . . . .	129	135	79	124
Rest of Shoreham S.D.	105	93	91	102
Steyning Parish . . . . .	85	90	49	82
Henfield Parish . . . . .	62	55	92	64
Rest of Steyning S.D.	69	111	121	78
Total . . . . .	104	111	108	105

The 57 infantile deaths in 1885 included one from measles, five from whooping-cough, one from diarrhœa, one from erysipelas, four from tabes mesenterica, four from tuberculosis, seven from convulsions, twelve from lung diseases, three from intestinal affections, nine from debility at birth, one from malformation, while nine were born prematurely.

The deaths from *zymotic*, or catching, disorders were 36 in number, against 39, 15, 35, 12, 46, 17, 50, 46, and 44 in the nine preceding years. These 36 deaths included three from measles, eight from scarlatina, twelve from whooping-cough, two from diphtheria, two from typhus fever, two from enteric fever, five from diarrhœa, one from erysipelas, and one from rheumatic fever.

The rate of mortality from these disorders was 1·9 per 1000 persons living, against a rate of 2·5, 0·9, 2·2, 0·7, 2·8, 1·0, 3·0, 2·7 and 2·4 in the nine preceding years. In the past ten years there have been altogether 340 deaths from this class of disorders, or a mean annual rate of 2·0 per 1000 persons living,

*Scarlatina* was very prevalent in the spring of the year at Sompting, Portslade, and Southwick, but in proportion to the number of children attacked, the mortality was but slight. There is no way of finding out the precise numbers, as often in slight cases no medical man is called in. At Lancing College in the month of April there was an outbreak of scarlatina among the boys which, however, was of a mild nature and recovery took place in every instance. About forty cases occurred and the College was closed for a time, the place, in fact, being turned into a sanitarium. The place is in a satisfactory condition as regards drainage, and the water, being supplied by the Shoreham Waterworks' Company, is of excellent quality.

*Typhus fever* was registered as the cause of two deaths at Southwick. Edward T., 28 years of age, without regular employment, was engaged during the race week at Brighton in stable work, and the illness was ascribed to sleeping in a stable where a horse had died; the evidence on this point was not clear, but he evidently was suffering from some form of blood poisoning. He came to his home and on August 26th he was in a rambling,

delirious state with frequent diarrhoea; there was no rash, and he died on September 18th, being buried the next day. On September 19th the bedding and clothes were burnt and the cottage was fumigated and afterwards cleansed. The wife and the baby were in good health and there was no spread of the disease. The second case was a private one, and the bedding and clothing were burnt. There was no rash in either case, nor any spread of the disease, nor was there any previous history of exposure to infection.

*Enteric fever* caused two deaths, but in neither case were there any sanitary defects to account for the illness, and in each case the disease was imported into the district. A young man, 23 years of age, a well known cricketer, returned from Cambridge on June 10th feeling very ill and he died on June 20th at Southwick.

A man, 42 years of age, a market-gardener, died at Lancing on August 16th; he probably caught the fever when unloading some offensive manure at a railway station. In neither case was there any spread of the disease, care being taken to isolate the patient, to disinfect and bury excreta, and to disinfect and lime-wash the infected rooms.

This disease appeared in a few houses without causing any deaths.

At Belgrave Terrace, Portslade, there lived Mrs. M—— with five children. Henry M——, 11 years of age, an errand boy at Brighton, came home ill on May 5th with enteric fever, then the mother was attacked, and then in succession the other young children fell ill; it was not until August 7th that they were all convalescent, and then the house was well disinfected and cleansed. The water supply was very good, and there were no drains in the house, but the rooms were small, and the back yard was rendered unhealthy by the closet being so near the house; the closet was on the hopper principle and flushed by hand, so that it became occasionally blocked up, because such persons are very careless about the flushing.

At George Street, Fishergate, in the parish of Southwick, in a similar cottage, supplied with very good water, the wife and three children were taken ill in June, but they all recovered. There were no drains in the house, but there was more space round the dwelling. There was an old fashioned closet near the house which has since been altered. In neither case was there any spread of the disease beyond the house in which the illness appeared. The usual precautions were taken, but in small cottages where the air is constantly impure, enteric fever appears to be catching, and to attack one member of the family after another so that many weeks elapse before the place is free from the disease.

*Cholera Precautions.* Much time was spent in discussing this

matter, arrangements were made with the Harbour Master and a spot was chosen for the erection of an infectious Hospital.

The place for mooring a vessel was deemed to be unsafe, and any other spot was too near a main road or houses, or too far from the proposed site for a hospital. In the end, nothing was done and no case of cholera appeared. The matter is now transferred to a recently formed Port Sanitary Authority, who will in future have to deal with any imported cases of cholera.

**SOUTHWICK.**—A great many improvements have been carried out during the year. The water-supply is very good, being furnished by the Shoreham Waterworks Company from a fine spring at the base of the chalk hills. Many old closets have been converted into hopper closets and these drain into cesspools which are sunk in a porous soil. In nearly every case the closet is outside the house and the sink-pipes deliver on to a trap outside the dwelling, but there is no efficient system of drainage. At the railway station the drainage has been put into proper condition.

**PORTSLADE.**—All the drainage here is into cesspools, which, being sunk into a porous stratum above the chalk, allow the contents to flow away underground. There is no proper ventilation of the house drains, but fortunately nearly every closet is out of doors in a back yard, and as the sink pipes have no direct connection with the drains, the houses are free from the entrance of sewer gas, and the health of the people is good. By far the larger portion of Portslade is of modern growth and the houses are built near the sea. The population consists chiefly of poor people who seem to shift their quarters very frequently. Many come here to avoid the high rates and rents at Brighton and Hove, and in many cases two families occupy one house. The numbers rapidly increased between 1871 and 1881, but since then, building operations at Hove have not been so active, and many of the labourers have left, so that there is less overcrowding now than in former years, and a great many houses are empty. Large brickfields, which afforded employment to many, are now disused, because, for a time, there has been too much building going on.

A scheme of drainage for Portslade has often been discussed but the difficulties of carrying it out at the present time are very great, although the present system is not satisfactory.

**STEYNING.**—Complaints have been occasionally made of the bad air in the main drains and some more ventilating pipes have been put up. In each manhole there used to be a small catchpit which caused a nuisance by retaining noxious matters; these have all been filled up, so that the sewage runs away freely without causing any deposit. There are very few pan closets in this town, the earth system being used in a modified form which

seems to answer well. One or two owners have now undertaken to remove the contents more frequently.

**LANCING.**—Several complaints were made from time to time on account of the manure brought to the railway station, but more care is now taken. There are many market gardeners about here and it is to them a matter of much importance that they should have manure for the cultivation of the soil. Ordinary farm-yard manure is seldom a nuisance, but every now and then a truck comes from London, Portsmouth, or Brighton, laden not only with manure but with offal and refuse of every description. No doubt large towns are glad to get rid of their refuse on such easy terms, but no place should send it away to be a nuisance elsewhere. It would surely be an easy matter for a large town to have a furnace where such matter could be destroyed instead of being transferred to another spot. At Manchester and Derby all such offal and refuse is burnt at once and the ashes are afterwards utilised.

The following summary shows the death-rate from various causes during three decades.

Per 100,000 Persons living.	1851-60.	1861-70	1876-85.
<b>All ages, both sexes.</b>			
General Death-rate ..	1597	1614	1478
Zymotic ,, ..	326	342	206
Phthisis ,, ..	197	201	161
Lung Disease ,, ..	139 } 386	192 } 393	198 } 359
<b>15 to 55 years.</b>			
Phthisis Death-rate ..	{ 295 mean 304 female	{ 288 mean 309 female	{ 263 mean 287 female
Lung Disease ,, ..	{ 68 mean 50 female	{ 60 mean 39 female	{ 42 mean 26 female
Under 1 year .. ..	14101	14543	11250
Under 5 years .. ..	4826	5035	3604

*Inquests* were held in ten cases:—male, 59 years, accidentally suffocated by swallowing an escalop which got fixed in his wind-pipe; male, 65 years, accidentally run over by a wagon; male, 75 years, accidentally run over by a cart; female, 65 years, suicide by cutting throat; male, 6 months, spasm of glottis; male, 50 years, accidental death; male, 34 years, accidental death; male, 23 years, accidentally killed; female, 10 weeks, convulsions; male, 62 years, heart disease.

There were five deaths returned as "not certified" out of a total of 260 deaths; male, 27 days, probably bronchitis; female, 4 months, tubercular meningitis, convulsions; male, 6 days, jaundice; female, 13 months, whooping cough; male, 3 weeks, convulsions consequent on diarrhœa.

There were three deaths of children born out of wedlock in the Steyning Sub-district:—male, 27 days, probably bronchitis, uncertified; male, 3 months, pneumonia, certified; male, 5 weeks, tabes mesenterica, certified.

The returns from the Shoreham Sub-district give no information on this point.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

No cases occurred in which it was necessary to condemn meat or any other article of food.

The bakehouses have been inspected at intervals and they have been kept in a cleanly state.

The slaughter-houses have been well kept.

There is no common lodging house in the district.

No proceedings were taken before the magistrates during the year.

## STEYNING RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 10 years 1876-85.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1876 .....	242	54	40	9	12	60	67
1877 .....	244	53	21	10	11	75	74
1878 .....	243	60	35	8	11	49	80
1879 .....	196	41	18	6	10	53	68
1880 .....	243	61	28	15	13	47	79
1881 .....	197	48	14	3	10	44	78
1882 .....	251	58	40	18	12	52	71
1883 .....	279	58	33	21	21	66	80
1884 .....	263	58	36	20	9	61	79
1885 .....	260	57	34	8	12	55	94
Total .....	2418	548	299	118	121	562	770
In 1000 Deaths...	1000	227	123	49	50	233	318

TABLE 2.—Showing the Deaths and Death-rate in each of the 10 years 1876-85, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric.	Other.							
1876 ..	3	12	4	3	3	3	2	11	..	..	..	1	39	2.5	
1877 ..	..	3	2	1	..	1	1	3	..	2	..	2	15	0.9	
1878 ..	1	..	2	11	2	..	..	16	..	1	..	2	35	2.2	
1879 ..	..	1	1	2	..	3	1	1	..	2	1	..	12	0.7	
1880 ..	3	..	2	12	..	3	..	20	..	1	..	2	46	2.8	
1881 1	..	..	2	..	..	4	..	7	..	2	1	..	17	1.0	
1882 ..	2	4	8	23	..	3	2	6	1	1	..	..	50	3.0	
1883 ..	4	7	16	3	1	7	..	7	1	..	..	..	46	2.7	
1884 ..	3	10	5	..	..	6	..	17	..	1	..	2	44	2.4	
1885 ..	3	8	2	12	2	2	..	5	1	1	..	..	36	1.9	
Tl.	1	24	45	42	67	5	32	6	93	3	11	2	9	340	2.0

STEYNING RURAL SANITARY DISTRICT.

TABLE 3.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 10 years, 1876-85.

PARISH.	Population in 1885.	Continued Fever			Whooping Cough.	Diphtheria.	Scarlatina.	Measles.	Small Pox.	Mumps.	Typhoid	Enteric or Typhoid	Other or doubtful.	Diarrhoea & Dysentery.	Rheumatic Fever.	Krysipelas.	Pyæmia.	Puerperal Fever.	Total.
		Typhus.	Enteric or Typhoid	Other or doubtful.															
Preston .....	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Patcham .....	900	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	13
W. Blatchington .....	60	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2
Hangleton .....	80	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Portlade .....	4100	..	6	28	6	18	5	..	..	..	6	1	37	2	2	1	..	2	108
Aldington .....	1400	..	7	1	7	4	4	..	..	..	3	2	5	..	..	..	..	..	14
Southwick .....	2610	..	1	10	1	7	4	..	..	..	1	2	14	..	3	..	..	..	53
Kingston .....	265	..	1	1	1	..	..	..	..	..	1	..	1	..	1	..	..	..	6
Lancing .....	1400	..	5	6	5	..	3	..	..	..	2	..	4	..	1	..	..	..	21
Old Shoreham .....	250	..	1	..	1	..	..	..	..	..	2	..	1	..	1	..	..	..	5
Sompting .....	680	..	..	1	..	..	..	..	..	..	1	1	4	..	..	..	..	..	11
Coombes .....	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Botolphs .....	95	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bramber .....	190	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Steyning .....	1680	..	4	5	4	6	2	..	..	..	3	1	8	1	1	..	..	..	30
Upper Beeding .....	615	..	1	1	1	..	1	..	..	..	5	1	2	..	..	..	..	..	10
Edburton .....	350	..	..	2	..	..	1	..	..	..	2	..	..	..	..	..	..	..	4
Poynings .....	320	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	5
Woodmancote .....	350	..	16	6	16	1	..	..	..	..	5	1	3	..	1	..	..	..	2
Henfield .....	1900	..	..	2	..	2	..	..	..	..	1	..	..	..	..	..	..	..	37
Ashurst .....	380	..	..	2	..	..	1	..	..	..	..	..	2	..	..	..	..	..	5
Shermanbury .....	365	..	..	3	..	..	1	..	..	..	1	..	..	..	..	..	..	..	10
Whole District...	18160	1	42	67	42	45	24	1	24	45	32	6	93	3	11	2	9	..	340

Shoreham Sub-District. Steyning Sub-District.

## STEYNING RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 10 years 1876-85.

LOCALITY.	Deaths during the 10 years 1876-85, from							Annual Death-rate per 100,000 living, from						
	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.				
	Population in middle of the period.													
Portslade Parish . . . . .	3680	559	108	55	76	34	1519	293	149	206	92			
Southwick Parish . . . . .	2495	385	58	37	52	29	1543	212	148	208	116			
Rest of Shoreham sub-dis.	3880	528	74	60	61	36	1360	190	154	157	93			
Steyning Parish . . . . .	1670	279	30	34	51	15	1670	179	203	305	90			
Henfield Parish . . . . .	1890	306	37	28	35	38	1619	195	148	185	201			
Rest of Steyning sub-dis.	2535	361	38	49	51	27	1424	150	193	201	106			
Whole District . . . . .	16150	2418	340	263	326	179	1478	206	161	198	108			
In 1876 . . . . .	15090	242	39	24	38	19	1603	258	159	251	125			
In 1877 . . . . .	15310	244	15	37	25	16	1593	98	241	163	104			
In 1878 . . . . .	15530	243	35	30	38	12	1564	225	194	244	77			
In 1879 . . . . .	15760	196	12	29	30	17	1243	76	184	190	107			
In 1880 . . . . .	15990	243	46	21	37	14	1519	237	131	231	87			
In 1881 . . . . .	16325	197	17	14	19	16	1207	104	85	116	98			
In 1882 . . . . .	16700	251	50	25	20	18	1503	300	150	120	108			
In 1883 . . . . .	17000	279	46	29	37	23	1641	270	170	217	135			
In 1884 . . . . .	17850	263	44	30	32	24	1473	246	168	179	134			
In 1885 . . . . .	18160	260	36	24	50	20	1431	198	132	275	110			

TABLE A.—Showing the Deaths during the year 1885, in the Rural District  
 ing also the Population of such Localit

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							12
	CENSUS 1881	Estimated to middle of 1885		At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
PORTSLADE PARISH.	3719	4100	156	63	24	6	1	1	13	18	Under 5. ..... 5 upwds
SOUTHWICK PARISH.	2561	2610	76	36	6	8	...	3	11	8	Under 5. ..... 5 upwds
REST OF SHOREHAM SUB-DISTRICT.	3943	5300	131	51	12	9	3	4	10	13	Under 5. ..... 5 upwds
STEYNING PARISH.	1672	1680	41	28	2	2	1	...	5	18	Under 5. ..... 5 upwds
HENFIELD PARISH.	1890	1900	54	25	5	1	...	1	5	13	Under 5. ..... 5 upwds
REST OF STEYNING SUB-DISTRICT.	2540	2570	66	35	8	7	2	1	8	9	Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
TOTALS .....	16325	18160	524	238	57	33	7	10	52	79	Under 5. ..... 5 upwds
Deaths occurring outside the district among persons belonging thereto.....				22		1	1	2	3	15	Under 5. ..... 5 upwds
Deaths occurring within the District among persons not belonging thereto .....											Under 5. ..... 5 upwds



TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the District of STEYNING, classified according to the Nature of the Sickness.

NAMES OF LOCALITIES. 1	NEW CASES of SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF STEYNING.						
	2	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough 18
Portslade Parish	Under 5		7				
	5 upwds.		6				
Southwick Parish	Under 5		3				
	5 upwds.		3	1			
Rest of Shoreham Sub-Dis.	Under 5			2			
	5 upwds.			5			
Steyning Parish	Under 5						1
	5 upwds.				1		
Henfield Parish	Under 5						
	5 upwds.						
Rest of Steyning Sub-Dis.	Under 5		1	1			19
	5 upwds.		2		1		14
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
Totals	Under 5		11	3			20
	5 upwds.		11	6	2		14

Sources of information: In Workhouse and Workhouse Infirmary, patients of Worth

Medical Officer of Health, during the year 1885, in the Rural Sanitary District, distinguishing those in Children under Five Years.

RURAL SANITARY DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS								
Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record.
21	22	23	24	25	26	27	28	
	1			2				
	1							
	2							
	1			1				
	2							
	1							
	2							
	1			1				
	3							
	8			4				

Out-door Paupers, 391. In-patients of Worthing Infirmary, 4. Out-patients, 82.

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## RURAL SANITARY DISTRICT OF HORSHAM.

POPULATION, 14,131 IN 1871; 15,426 IN 1881. AREA IN ACRES, 69,706. NO. OF HOUSES, 2781 IN 1871; 3013 IN 1881.

During the year 1885 the births of 429 children and the deaths of 233 persons were registered; of the births, 219 were male and 210 were female; of the deaths, 148 were male and 85 were female.

There were 20 deaths in the Horsham Workhouse, and these have been distributed among the several parishes whence each inmate came, viz., Horsham 3, West Grinstead 1, Shipley 1, Lower Beeding 1, Ifield 2, Rusper 1, Slinfold 4, and Rudgwick 2, in all,—15. The remaining 5 deaths belonged to the Horsham Urban Sanitary District.

In each parish the deaths were thus distributed:—Horsham (part of) 10, West Grinstead 33, Shipley 16, Nuthurst 14, Horsham (part of) 22, Lower Beeding 11, Ifield 30, Crawley 5, Rusper 4, Warnham 18, Slinfold 15, Itchingfield 3, Rudgwick 20, and Billingshurst 27, in all,—228.

The births and deaths in the whole of the district during the past ten years have been as follows:—

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1876 ..	449	31·3	243	16·9
1877 ..	455	31·5	182	12·6
1878 ..	490	33·5	204	13·9
1879 ..	499	33·8	241	16·3
1880 ..	444	29·0	217	14·1
1881 ..	503	32·4	197	12·7
1882 ..	487	31·0	198	12·6
1883 ..	480	30·3	202	12·7
1884 ..	546	33·6	217	13·3
1885 ..	429	26·1	228	13·8

In each quarter the births and deaths were as follows:—

	Births.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
1st Quarter ..	58	61	119	44	25	69
2nd ,, ..	51	49	100	42	26	68
3rd ,, ..	58	55	113	26	14	40
4th ,, ..	52	45	97	32	19	51
Total ..	219	210	429	144	84	228

The births appear to be most numerous in the first and third quarters of the year :—

		1879-84.	1885.	Total.	Mean.
1st Quarter	..	763	119	882	126
2nd	„	716	100	816	117
3rd	„	764	113	877	125
4th	„	716	97	813	116
		<hr/>	<hr/>	<hr/>	<hr/>
Total	..	2959	429	3388	484

The following table shows the birth-rate in each sub-district during the eight years, and as the populations are similar in age and occupation the rates are very uniform throughout the district :—

	Mean of 1877-83.	1884.	1885.	Mean of 1877-85.
South Sub-District	31·6	33·7	24·7	31·1
North Sub-District	31·2	34·6	28·1	31·2
West Sub-District	32·3	31·4	23·4	31·2
	<hr/>	<hr/>	<hr/>	<hr/>
Total	.. 31·6	33·6	26·1	31·2

The *birth-rate* in 1885 throughout England and Wales was equal to 32·5 per 1000 persons estimated to be living in the middle of the year; it was lower than in any previous year since 1848, and it was 2·2 below the mean annual rate in the ten years 1875-84.

The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1-5.	5-15.	15-25.	25-60.	60 and Upwds.	Total.
1st Quarter	.. 11	12	6	4	7	29	69
2nd	„ .. 12	6	4	4	18	24	68
3rd	„ .. 7	4	1	4	8	16	40
4th	„ .. 8	9	1	2	12	19	51
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Total	.. 38	31	12	14	45	88	228

A comparative statement of the deaths in each quarter during the past ten years shows that the deaths are most numerous in the first and second quarters of the year.

	1876-84.	1885.	Total.	Mean.
1st Quarter	.. 512	69	581	58·1
2nd	„ .. 519	68	587	58·7
3rd	„ .. 455	40	495	49·5
4th	„ .. 415	51	466	46·6
	<hr/>	<hr/>	<hr/>	<hr/>
Total	.. 1901	228	2129	212·9

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under 1 year.	Ratio to 1000 Births.
South Sub-District .....	102	11	108
North Sub-District .....	232	16	69
West Sub-District .....	95	11	115
Total .....	429	38	88

The rate of infant mortality throughout England and Wales was equal to 138 per 1000, against 141, 137, and 147 in the three preceding years.

The following table shows the rate of infant mortality during the past ten years in such sub-district; the rates are low and uniform :—

	Mean of 1876-83.	1884.	1885.	Mean of 1876-85.
South Sub-District....	89	93	108	81·3
North Sub-District....	82	69	69	79·4
West Sub-District....	91	48	115	89·1
Total .....	85	69	88	83·7

The 38 *infantile* deaths included three from whooping-cough, three from tuberculosis, two from meningitis, six from convulsions, nine from lung disease, one from enteritis, four from debility and one from malformation, while nine were born prematurely.

The deaths from *zymotic*, or catching, disorders were 23 in number against 27, 6, 14, 21, 26, 22, 17, 17, and 18 in the nine preceding years. The 23 deaths in 1885 included one from scarlatina, five from whooping-cough, twelve from diphtheria, one from fever, three from diarrhoea, and one from erysipelas.

The rate of mortality from these diseases was 1·4 per 1000 persons living against a rate of 1·8, 0·4, 0·9, 1·4, 1·6, 1·4, 1·0, 1·0, and 1·1 in the nine preceding years.

In the past ten years there have been altogether 191 deaths in this class, or a mean annual rate of 1·2 per 1000.

*Diphtheria* proved very fatal in the parish of West Grinstead in the spring.

1.—The first case occurred in a cottage in January last and the child's death was registered on January 29th as due to diphtheria, laryngitis. The cottage was occupied by Jesse C., wife and 4 young children. Arthur C., aged 4 years, died after a few days illness, and his sister, about 8 years old, was taken ill on January

30th with a sore throat, but she recovered. This cottage formed one of a row of six cottages close to Partridge Green station, but none of the other inmates of these houses was attacked. The child who died attended Jolesfield Common school about half a mile away.

2.—The second case was met with at Littleworth, a small hamlet to the north of Jolesfield Common, and a mile from the house above mentioned. Sarah C., the daughter of a veterinary surgeon, 5 years of age, fell ill on March 11th, and she died on March 15th. A brother, 3 years old, was attacked on March 17th and he recovered. The parent, and two other young children escaped. This house formed one of a row of seven cottages, but here again no other persons in the row were attacked. In this second case the child first attacked attended Jolesfield Common school, about half a mile distant.

8.—Jane M., a pupil teacher at Jolesfield Common school, had a cold all the winter; she was worse on March 22nd; came to school on March 23rd with a cold and sore throat, left on March 25th, and she remained away until the school was closed on April 1st. This girl recovered.

4.—On the Ashurst Road, and a long way off any of the preceding cases, there stands a well-built substantial cottage occupied by James J., wife, and six children. In this place the mortality was greatest. Sidney,  $7\frac{1}{2}$  years, who attended the above named school, fell ill on March 27th and he died on March 29th of diphtheria and asthenia. Rebecca, 11 years, was attacked on March 30th, but she recovered. Charles, 5 years old, was taken poorly at the same time, but he recovered. In the meantime the father died of blood poisoning through attending a horse diseased of farcy; the cause of the man's death on April 13th is registered as due to farcy. The man was a farm labourer, and the family became much impoverished, but the Board of Guardians gave liberal relief and provided a nurse. A baby, 1 year old, fell ill at the end of April and died of diphtheria on April 30th; an elder brother William, 19 years of age, died of diphtheria on May 5th after about a week's illness. The wife and one child escaped.

5.—Not far from Partridge Green station there is a cottage occupied by William N., wife, and 5 children. William, 4 years old, was taken ill on April 2nd and he recovered. The parents and 4 other young children escaped. This was a semi-detached cottage, but no one next door fell ill. William N attended the same school as the rest.

6.—In the main street of Partridge Green there is a well-built house occupied by a grocer, wife, one adult son, and 3 young children. Raymond, 6 years of age, who attended school, fell ill with diphtheria at the close of March and he died on March 31st,

but there were no other cases in this house. In these six houses there were 14 adults, and 21 children under 15 years of age; of the adults, none were attacked, except William J., 19 years old, who died, and Jane M., who recovered; of the 21 children, 10 were attacked, 5 died and 5 recovered.

	Adults	Attacked	Died	Children	Attacked	Died
1	2	none	none	4	2	1
2	2	none	none	4	2	1
3	2	1	none	none	none	none
4	3	1	1	5	4	2
5	2	none	none	5	1	none
6	3	none	none	3	1	1
	—	—	—	—	—	—
Total ..	14	2	1	21	10	5

Taking now the primary cases it will be seen that all attended the school at Jolesfield Common, and all belonged to the infant class.

Arthur C.	4 years	Infant class
Sarah C.	5 years	„
Jane M.	pupil teacher in	„
Sidney J.	7 years	„
William N.	4 years	„
Raymond K.	6 years	„

About 140 children are on the books of the school and above 120 are in average attendance. The school was closed on April 1st and reopened on April 20th. There were from 40 to 50 children under 7 years of age in the infant class. The large class room has space enough for 125 children, and the small class room can accommodate 42 infants; 48 infants were on the register in the first week of the term which began with the new year; then in the next three weeks the numbers fell to 26, 32, and 27; colds and coughs were very prevalent and the average attendance up to April fell to 30 a week.

There was nothing in common to all these six houses except the attendance at school; the water supply, the drainage, the milk supply, and even the ordinary articles of food were from different sources.

The school is a modern building standing in an isolated, bleak situation by the side of a common. There is a well on the premises, but the water has not been used for years as it was found to be unfit for drinking purposes. A tank has been constructed for collecting the rain water; this tank is underground, covered over, cemented, and furnished with a pump which conveys the water into a galvanized iron cistern where it passes through two large charcoal filters before it is drawn for

use. The tanks and filters are kept clean, and the water is of good quality. There are no drains in the school and no means by which sewer gas or foul air can enter the class rooms. The school closets are at the end of the playground, about 30 yards from the school, they were very offensive and required to be cleaned. They are formed on the old privy system and there is much difficulty in getting any other system adopted here.

The facts above given point to school attendance as a chief cause of the outbreak. The weather at the time was cold and bleak, the soil was clay and those children who were attacked were amongst those who had to walk the greatest distances, and who, being so young, naturally felt changes in the weather. That the cold weather caused much illness is shown by the large amount of sickness amongst young children in the spring which reduced the school attendance. Georgina C., who had been ill in January (see case No. 1) returned to school with her young brothers on March 10th it being thought that sufficient time had then elapsed for her recovery. I think it very possible that this girl was even then in an infectious condition, for in other cases the disease seems to be conveyed by children two months or more after apparent recovery. When the disease re-appeared at the end of March, the rest of those attacked seem to have caught the disease directly from the primary cases. The school was closed, cleansed, and fumigated and the closets cleaned out. In each house, disinfection was carried out, and the rooms were cleansed, and many minor matters were remedied.

IFIELD AND CRAWLEY.—The question of the drainage of these places was frequently discussed during the year.

On February 12th, the Local Government Board wrote requesting more precise information as to the treatment of the sewage at the outfall, and asking for a revised estimate, in detail, with reference to the outfall works and land.

On March 18th Mr Kelsey sent in a report with plans of the proposed settling tank, and of the land to be taken for the sewage works. By this amended scheme, it was estimated that the cost would be increased by £730, which, added to the original cost of the scheme laid before Mr Codrington at the enquiry held on December 23rd, 1885, would entail an estimated expenditure of £4,368.

On June 3rd, the Rural Sanitary Authority resolved to apply for a sanction from the Local Government Board to a loan of £4,368 for the purpose of carrying out the proposed works for sewerage and sewage disposal for the parishes of Ifield and Crawley.

The formal sanction of the Board was given on July 13th to the borrowing of the money, the sums of £507 and £3,861 being apportioned to Crawley and Ifield respectively. In August a small committee was appointed to see as to the land required for

sewage disposal and it was requested to enter into negotiations with the owner for the purchase of the land, No. 335 on the ordnance map, and right of way and other easements.

Although the death-rate in these parishes is low and the people are healthy, yet the drainage is in a most unsatisfactory condition, and it is especially bad at West Park, Ifield. A number of small houses have been erected here, but they are so close together that there is not enough land or garden ground on which the sewage can be treated. The earth system is not adopted, but each house is provided with a hopper closet, placed outside, but close to the dwelling; the sink-pipes are carried through the wall of the house and they deliver on to a trap in the back yard. All the drainage from each house passes into a small cesspit, and the overflow from each cesspit passes into a drain which empties into the nearest ditch. and in hot weather, the air is rendered most impure.

The houses in New Town drain into a sewer, the outfall of which is in the Worth Lane ditch, and there being no houses very near, the nuisance is only felt by those going along the road. In West Park, the ditches are close to the houses, and they are almost surrounded by them. It is now proposed to put in a public drain which shall remove the sewage from these houses to a point distant from any houses, so that if a large scheme of drainage is carried out, this small section can form part of such large scheme. This will certainly somewhat remedy the evil, but I do not think the drainage will be satisfactory until a larger scheme is carried out, so that the sewage can be dealt with at the outfall in a proper manner. Nor do I think that even then the scheme will work well, unless there is a better supply of water for flushing purposes. At present the flushing is done by hand, and this is very often imperfectly carried out.

There should be no cesspit at all under the closets, the soil pipe should be properly ventilated, and all the contents of the drain should be carried away quickly to a distant spot, there to be treated by irrigation, or by some other process. Each closet should also have a flushing tank, but this could not be well carried out, until there is a public water supply.

Ifield is too large a village to be dealt with on the earth system, to which the inhabitants seem to have a great objection; and it is too small a town to be able to carry out an expensive scheme of water supply and sewage.

In the meantime more care should be taken to clean out the various offensive ditches, and to remove such nuisances as exist.

The following summary shows the death-rate from various causes during three decades.

In nearly every case it will be noticed that there is a great reduction from the rates which prevailed thirty years ago; this is

more especially the case with the general and with the zymotic death-rates.

Per 100,000 Persons living.	1851-60.	1861-70	1876-85.
All ages, both sexes.			
General Death-rate ..	1765	1766	1393
Zymotic ,, ..	388	300	124
Phthisis ,, ..	261	212	142
Lung Disease ,, ..	246	326	251
	} 533	} 393	} 393
15 to 55 years.			
Phthisis Death-rate ..	{ 440 mean 518 female	{ 340 mean 428 female	{ 243 mean 236 female
Lung Disease ,,	{ 55 mean 57 female	{ 83 mean 69 female	{ 87 mean 51 female
Under 1 year .. ..	?	14543	9015
Under 5 years .. ..	3901	5035	2764

RAINFALL.—The amount of rainfall during the year was taken daily by Mr. R. Sheppard, of Horsham, who has kindly allowed me to use his tables.

Month	Total depth in inches.	No. of rainy days.	Rainfall in 1884.
January .. .. .	1·93	10	2·45
February ... ..	2·98	17	1·74
March .. .. .	2·28	8	1·76
April... .. .	1·08	8	1·57
May ... .. .	3·23	17	0·52
June ... .. .	1·36	9	1·75
July ... .. .	0·16	3	1·80
August ... .. .	0·88	3	0·90
September ... ..	4·34	17	3·04
October ... .. .	3·57	17	1·35
November .. .. .	2·69	13	1·39
December ... .. .	1·28	16	3·03
Total.....	25·78	143	21·30

The rain guage is placed 5ft. above the ground and 150ft. above the sea level; diameter of funnel, 6 inches.

INQUESTS were held in five cases:—Female, 2 years, accidentally scalded by upsetting of kettle; male, 23 years, accidentally drowned by falling into a pond while in a fit; male, 3 years, accidentally drowned by falling into a pond; male, 1 year, accidentally scalded; male, 21 years, accidental fall from cart.

There were nine deaths returned as "not certified" out of a total of 228 deaths:--female, 73 years, supposed cause, syncope; male, 24 years, rupture of blood vessel; male, 15 months, debility; male, 1 year, whooping-cough; male, 1 day, premature birth; female, 5 months, bronchitis; male, 15 minutes, premature birth; male, 55 years, disease of heart; male, 3 days, convulsions.

The per centage of *uncertified deaths* was 3·9, being higher than the proportion of 3·4 per cent., which was the rate in 1885 throughout England and Wales.

In the South Sub-district there was one death of an illegitimate child out of a total of 102 births:--female, 10 hours, premature birth, uncertified.

In the North Sub-district there was one death of a child born out of wedlock out of a total of 232 births:--female, 5 months, artificial feeding, apthæ, certified.

In the West Sub-district there was also one death of an illegitimate child out of a total of 95 births:--male, 3 days, convulsions, uncertified.

The death-rate amongst infants born out of wedlock is much higher than amongst legitimate births; the illegitimate birth-rate is about 3·6 to every 100 births, so that in the past five years, out of 2445 births, there have been 88 children born out of wedlock, of whom 20 have died, so that the mortality has been equal to a ratio of 227 to every 1000 such births, while the ordinary ratio has been only 77 deaths to 1000 births.

PROCEEDINGS BEFORE THE MAGISTRATES.—On February 14th an owner of some houses at West Park, Ifield, was summoned under the Public Health (Water) Act, 1878, for allowing a cottage to be occupied without having first obtained a certificate that there was within a reasonable distance an available supply of wholesome water. The owner was fined £1 and costs, and a certificate was applied for and granted.

On October 31st the owner of a cottage at Slinfold was summoned for neglecting to supply sufficient privy accommodation. After hearing the evidence, the case was adjourned for a fortnight, and then it ended; the owner in the meantime having put the property in proper repair.

On December 12th an owner of a lodge at Warnham was summoned for having allowed the house to be occupied without having first obtained a certificate that there was within a reasonable distance an available supply of wholesome water. After evidence had been given the case was adjourned for a month, when it was again adjourned for a week on payment of the costs of the day. On the final hearing the owner was fined 1s. and costs. In this case the illness of the owner was alleged as the reason why the matter had been neglected.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

No cases occurred in which it was necessary to condemn meat or any other article of food.

The bakehouses have been inspected at intervals and they have been kept in a cleanly state.

The slaughter-houses have been well kept.

There is no common lodging-house in the district.

## HORSHAM RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 10 years 1876-85.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1876 .....	243	49	20	12	13	56	93
1877 .....	182	36	9	8	12	39	78
1878 .....	204	39	17	9	6	56	77
1879 .....	241	50	22	12	21	47	89
1880 .....	217	40	25	17	12	40	83
1881 .....	197	40	14	8	9	55	71
1882 .....	198	41	15	14	12	46	70
1883 .....	202	32	15	9	8	61	77
1884 .....	217	38	18	14	12	49	86
1885 .....	228	38	31	12	14	45	88
Total .....	2129	403	186	115	119	494	812
In 1000 Deaths...	1000	190	87	54	56	232	381

TABLE 2.—Showing the Deaths and Death-rate in each of the 10 years 1876-85, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric.	Other.							
1876	1	6	4	::	9	::	3	1	3	::	::	::	::	27	1·8
1877	::	2	::	::	::	::	3	::	1	1	::	::	::	6	0·4
1878	::	2	1	1	2	::	1	::	5	::	::	::	1	14	0·9
1879	::	3	1	3	8	::	1	1	3	::	::	::	1	21	1·4
1880	::	4	3	5	4	::	1	1	7	::	::	::	1	26	1·6
1881	::	3	1	2	8	::	1	1	5	2	::	1	2	22	1·4
1882	::	3	1	5	2	::	1	1	1	1	2	::	::	17	1·0
1883	::	2	1	::	5	::	1	::	2	1	3	::	2	17	1·0
1884	::	::	::	10	::	1	1	::	5	::	::	1	::	18	1·1
1885	::	::	1	12	5	::	::	1	3	::	1	::	::	23	1·4
Tl.	1	22	13	38	43	1	12	6	35	5	6	2	7	191	1·2

HORSHAM RURAL SANITARY DISTRICT.

TABLE 3.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 10 years, 1876-85.

PARISH.	Population in 1885.	Continued Fever			Whooping Cough.	Diphtheria.	Scarlatina.	Measles.	Small Pox.	Typhus.	Enteric or Typhoid	Other or doubtful.	Diarrhoea & Dysentery	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Total.
		Typhus.	Enteric or Typhoid	Other or doubtful.														
Horsham (part).	690	..	..	1	5	2	1	1	..	..	1	..	..	..	..	..	1	12
West Grinstead.	1510	..	4	2	7	2	3	..	..	..	2	..	..	..	1	..	1	25
Shipley .....	1110	..	1	5	5	..	1	..	..	..	..	..	3	1	..	..	..	15
Nuthurst .....	820	..	1	2	2	1	3	..	..	..	..	..	3	..	..	..	..	11
Horsham (part).	2250	..	1	3	2	1	2	..	..	..	1	..	6	1	..	2	..	20
Lower Beeding..	1320	..	2	6	1	1	3	..	..	..	1	..	5	..	..	1	..	13
Ifield .....	2610	..	..	5	5	1	3	..	..	..	..	..	4	1	..	..	..	23
Crawley .....	460	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	2
Rusper .....	540	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	4
Warnham .....	1070	..	..	7	2	1	1	..	..	..	..	..	1	1	..	..	..	15
Slinfold .....	770	..	1	2	8	1	1	..	..	..	1	..	2	2	..	..	..	17
Itchingfield.....	440	..	1	2	..	3	..	..	..	1	1	..	..	..	..	..	..	7
Rudgwick .....	1130	..	1	2	1	..	4	..	..	..	1	..	2	1	..	1	..	12
Billingshurst ..	1710	..	1	5	2	..	2	..	..	..	..	..	4	..	..	..	1	15
Whole District...	16430	1	12	43	38	13	22	1	1	12	6	35	5	6	2	7	191	

Sub-District. Sub-District. Sub-District. South North West

## HORSHAM RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 10 years 1876-85.

LOCALITY.	Deaths during the 10 years 1876-85, from					Annual Death-rate per 100,000 living, from					
	Population in middle of the period.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
South Sub-District . . . .	4080	587	63	60	93	39	1438	154	147	228	95
North Sub-District . . . .	7420	923	77	91	179	63	1244	103	122	241	84
West Sub-District . . . .	3930	619	51	66	113	58	1575	130	168	287	147
Whole District . . . . .	15430	2129	191	217	385	160	1393	124	142	251	104
In 1876 . . . . .	14306	243	27	27	42	17	1698	188	188	293	118
In 1877 . . . . .	14445	182	6	23	26	17	1260	41	159	180	117
In 1878 . . . . .	14588	204	14	21	38	16	1398	96	143	260	109
In 1879 . . . . .	14732	241	21	30	49	17	1635	142	203	332	115
In 1880 . . . . .	15350	217	26	19	47	14	1413	169	124	306	91
In 1881 . . . . .	15510	197	22	22	30	13	1270	141	141	193	83
In 1882 . . . . .	15670	198	17	21	28	12	1263	108	134	178	76
In 1883 . . . . .	15840	202	17	24	32	17	1275	107	151	202	107
In 1884 . . . . .	16240	217	18	15	44	16	1336	110	92	271	98
In 1885 . . . . .	16430	228	23	15	49	21	1387	140	91	298	127

TABLE A.—Showing the Deaths during the year 1885, in the Rural Districting also the Population of such Localities

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	CENSUS 1881	Estimated to middle of 1885		At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
SOUTH SUB-DIST.	4083	4130	102	71	11	11	4	7	16	22	Under 5. ..... 5 upwds
NORTH SUB-DIST.	7403	8250	232	83	16	17	5	3	11	31	Under 5. ..... 5 upwds
WEST SUB-DIST.	3940	4050	95	59	11	3	3	3	14	25	Under 5. ..... 5 upwds
HORSHAM WORK- HOUSE.				20	1	—	—	1	7	11	Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
TOTALS .....	15426	16430	429	233	39	31	12	14	48	89	Under 5. ..... 5 upwds
Deaths occurring outside the district among persons belonging thereto.....											Under 5. ..... 5 upwds
Deaths occurring within the District among persons not belonging thereto .....				5	1	—	—	—	3	1	Under 5. ..... 5 upwds



TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the District of HORSHAM, classified according to the Nature of the Sickness.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF HORSHAM.						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic" 17	Whooping Cough 18
	Under 5					1	6
5 upwds.					3	5	
South Sub-District							
Under 5		1	1				
5 upwds.		2	5				
North Sub-District							
Under 5			2				
5 upwds.		3	3				
West Sub-District							
Under 5							
5 upwds.							
Under 5							
5 upwds.							
Under 5							
5 upwds.							
Under 5							
5 upwds.							
Under 5							
5 upwds.							
Under 5							
5 upwds.							
Under 5		1	3	1		6	
5 upwds.		5	8	3		5	
Totals							

Sources of information: In Workhouse and Workhouse

Medical Officer of Health, during the year 1885, in the Rural Sanitary District, according to Localities and Diseases.

RURAL SANITARY DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS								
Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record.
21	22	23	24	25	26	27	28	
	3							
	3			2				
1	3							
	2							
	12			2				
	5							
1	18			4				

January, 75. Among Out-door Paupers, 551.

of the year 1895 in the United States  
of the year 1895 in the United States

of the year 1895 in the United States

of the year 1895 in the United States

of the year 1895 in the United States

of the year 1895 in the United States

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of the year 1895 in the United States

of the year 1895 in the United States

of the year 1895 in the United States

## RURAL SANITARY DISTRICT OF PETWORTH.

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POPULATION, 10,138 IN 1871 ; 9,595 IN 1881. AREA IN ACRES, 45,701. NO. OF HOUSES, 2,008 IN 1871 ; 1,994 IN 1881.

During the year 1885 the births of 246 children and the deaths of 155 persons were registered ; of the births, 123 were male and 123 were female ; of the deaths, 77 were male and 78 were female.

There were seven deaths in the Petworth Workhouse, and six in Kirdford Workhouse but none in Wisborough Green Workhouse or in the Petworth Cottage Hospital. These 13 deaths have been distributed among the several parishes whence each inmate came, viz., Wisborough Green 1, Northchapel 1, Kirdford 2, Petworth 7, Fittleworth 1, and Sutton 1, in all,—13.

In each parish the deaths were thus distributed :—Wisborough Green 24, Northchapel 11, Kirdford 29, Petworth 51, Egdean 1, Fittleworth 11, Stopham 3, Coates 0, Burton 1, Duncton 3, Barlavington 1, Sutton 7, Bignor 3, and Bury 10, in all,—155.

The births and deaths in the whole of the district during the past ten years have been as follows :—

Year.	Births,	Birth-rate.	Deaths.	Death-rate.
1876 ..	264	26·7	157	15·8
1877 ..	296	30·1	148	15·0
1878 ..	280	28·6	184	18·8
1879 ..	298	30·8	160	16·5
1880 ..	267	27·8	136	14·1
1881 ..	292	30·6	158	16·5
1882 ..	275	28·9	125	13·1
1883 ..	262	27·5	171	18·0
1884 ..	304	31·8	140	14·6
1885 ..	246	25·7	155	16·2

During the past ten years there have been 2,784 births and 1,534 deaths, so that the natural increase of population during this period by excess of births over deaths is therefore 1,250. The estimated *decrease* of the population during the same period is 335, so that there must have been a considerable migration into other districts.

In each quarter the births and deaths were as follows:—

	Births.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
1st Quarter ..	33	26	59	23	23	46
2nd „ ..	26	28	64	17	17	34
3rd „ ..	25	30	55	19	12	31
4th „ ..	59	39	68	18	26	44
Total ..	123	123	246	77	78	155

The births appear to be most numerous in the first quarter of the year:—

	1879-83	1884.	1885.	Total.	Mean.
1st Quarter ..	372	76	59	507	72·4
2nd „ ..	344	71	64	479	68·4
3rd „ ..	328	86	55	469	67·0
4th „ ..	350	71	68	489	69·9
Total ..	1394	304	246	1944	277·7

The following table shows the birth-rate in each sub-district during the last ten years, and as the populations are similar in age and occupation the rates are very uniform throughout the district:—

	1876-83.	1884.	1885.	Mean.
North Sub-District	29·0	31·4	28·2	29·1
Petworth Parish	28·9	31·6	26·8	28·9
Rest of South Sub-Dis.	28·7	32·8	20·2	28·8
Total ..	28·9	31·8	25·7	28·8

The *birth-rate* in 1885 throughout England and Wales was equal to 32·5 per 1000 persons estimated to be living in the middle of the year; it was lower than in any previous year since 1848, and it was 2·2 below the mean annual rate in the ten years 1875-34.

The deaths at different groups of ages in each quarter are here shown:—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and Upwds.	Total.
1st Quarter ..	7	8	—	—	12	19	46
2nd „ ..	4	4	1	3	6	16	34
3rd „ ..	6	—	1	3	9	12	31
4th „ ..	3	4	3	2	7	25	44
Total ..	20	16	5	8	34	72	155

A comparative statement of the deaths in each quarter during the past ten years shows that the deaths are most numerous in the first and last quarters of the year,

	1876-83.	1884.	1885.	Total.	Mean.
1st Quarter ..	344	38	46	428	42·8
2nd „ ..	317	34	34	385	38·5
3rd „ ..	249	41	31	321	32·1
4th „ ..	329	27	44	400	40·0
Total ..	1239	140	155	1534	153·4

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under 1 year.	Ratio to 1000 Births.
North Sub-District .....	117	8	68
Petworth Parish .....	79	7	88
Rest South Sub-District .....	56	5	100
Total .....	246	20	81

The rate of infant mortality throughout England and Wales was equal to 138 per 1000, against 141, 137, and 147 in the three preceding years.

The following table shows the rate of infant mortality during the past ten years in each sub-district; the rates are low and uniform :—

	1876-83.	1884.	1885.	Mean.
North Sub-District....	78	69	68	76
Petworth Parish.....	94	53	88	89
Rest South Sub-District	84	61	100	83
Total .....	85	62	81	82

The 20 *infantile* deaths in 1885 included two from whooping-cough, one from diarrhoea, six from convulsions, one from bronchitis, one from enteritis, one from peritonitis, four from debility, while four were born prematurely.

The deaths from *zymotic*, or catching, disorders were 10 in number against 14, 8, 17, 13, 12, 4, 8, 9, and 5 in the nine preceding years. The 10 deaths included four from diphtheria, two from whooping-cough, two from enteric fever, one from diarrhoea, and one from erysipelas.

The rate of mortality from these diseases was 1·0 per 1000 persons living against a rate of 1·4, 0·8, 1·7, 1·3, 1·2, 0·4, 0·8, 0·9, and 0·5 in the nine preceding years.

In the past ten years there have been altogether 100 deaths in this class of disorders, or a mean annual rate of 1·0 per 1000.

There were several cases of *diphtheria* at Plastow in the course of the autumn, and chiefly in connection with school attendance. Plastow is a portion of the parish of Kirdford, and it is situated on the Weald clay. Most of the houses are isolated cottages, each house being surrounded with a fair-sized garden. At a cottage occupied by Thos. A., wife and four children, Ellen A., 7 years of age, was taken ill on Sept. 28th; she was a delicate child and liable to sore throats; no other inmate was attacked, and the girl made a good recovery. At a cottage occupied by Widow E., with seven children, Lilly E., 7 years of age, was taken ill on September 28th, and she also recovered, while no other member of the family was attacked. William W. occupied a cottage with his wife and six children. Edith W., 6 years of age, fell ill on September 28th, and her brother William, 10 years old, fell ill on October 2nd; they recovered and no one else suffered. At another cottage, occupied by Mrs. D. and four children, a boy, Alfred D., 9 years old, was attacked on Sept. 24th, and he died on September 29th. He was a cripple and in delicate health: the other children did not fall ill. At Park Gate there are two adjoining, dry, well-built cottages. In one, occupied by Louis D., wife and four children, there was one case, but the boy, William D., 8½ years of age, recovered. At the next cottage, where William H., wife and seven children, lived, Caroline H., 9¾ years old, fell ill on September 28th, but this was not a severe case, and no one else in the house suffered. These six cottages were long distances apart, and three of them were very clean and neat, while three were old, but in none of them were there any drains inside the house. In four cases the water came from wells and it was of good quality; in two cases the water was obtained from dipping holes in the clay, and it was liable to become turbid in wet weather. In each instance the only children attacked were those who went to school, while there was a marked absence of any spread of the disease to other members of the house. Mr. Humphry, of Wisborough Green, who attended all these cases, ascribes this to the plan he adopts of frequently burning small quantities of sulphur in the room in which the patient lies; in this way the air is disinfected, and the patients seem to be very tolerant of the sulphurous fumes. The cottages were disinfected and lime-washed when the patients recovered. Plastow school was built in the year 1869, and it consists of one large room, with six windows and two openings in the roof for ventilation. There is no well on the premises, but good water is obtained from a well at an adjacent cottage. There were no drains in the school, but the four closets required more frequent cleansing, and it would be very desirable if the earth system were here carried out. The

average attendance of children is about 106. When the illness broke out the school was closed, disinfected, and cleansed. After a fine dry summer there came a cold and wet September; during the last week there was a marked fall in the temperature, with cold and even frosty nights.

The two deaths from *diphtheria* at Fittleworth occurred in the same house in December. The house was clean and well-built, but just before the illness began a drain was blocked up, and to this cause the illness was ascribed. There were no other cases near, and there was no spread of the disorder.

PETWORTH WATER-SUPPLY AND DRAINAGE.—The town is now well supplied with good water, and since the reservoir has been covered in there has been no growth of vegetable matter on the surface of the water.

Much progress has been made in converting the old closets into water closets in connection with the new system of sewerage. A great many nuisances have thus been removed. The new closets are on the wash-out principle, and to each closet there is supplied a flushing tank holding about two gallons. The main sewers have been ventilated in several places by erecting vertical shafts; the flushing is better carried out, and the catch-pits at the bottom of the manholes have been filled up.

The following summary shows the condition of this district during three decades, so far as it can be told by means of death-rates.

The figures show a marked improvement in recent years over the rates which prevailed twenty and thirty years ago:—

Per 100,000 Persons living.	1851-60.	1861-70	1876-85.
All ages, both sexes.			
General Death-rate ..	1855	1933	1590
Zymotic .. ..	271	319	103
Phthisis .. ..	283	226	150
Lung Disease .. ..	211	230	273
	} 494	} 456	} 423
15 to 55 years.			
Phthisis Death-rate ..	{ 462 mean 509 female	{ 397 mean 490 female	{ 262 mean 225 female
Lung Disease ..	{ 50 mean 44 female	{ 86 mean 90 female	{ 129 mean 117 female
Under 1 year .. ..	?	11885	9541
Under 5 years .. ..	3937	4081	2745

RAINFALL.—The amount of rainfall during the year was taken daily by the Rev. C. Holland, Petworth Rectory, who has kindly allowed me to use his tables.

Month	Total depth in inches.	No. of rainy days.	Rainfall in 1884,
January .. ...	2·78	11	3·96
February ... ..	4·75	16	2·82
March .. ...	2·25	4	2·87
April... ..	1·29	9	1·67
May ... ..	4·17	15	0·70
June ... ..	1·96	6	1·85
July ... ..	0·41	4	2·31
August ... ..	1·15	8	0·97
September ... ..	4·92	15	3·42
October ... ..	4·37	16	0·88
November ... ..	3·67	13	1·51
December ... ..	1·58	7	3·69
Total.....	33·30	124	26·65

The rain gauge is placed 1ft. 4in. above the ground and 190ft above the sea level; diameter of funnel, five inches.

*Inquests* were held in six cases:—Male, 70 years, found drowned in a pond; male, 45 years, suicide by cutting throat; male, 51 years, accidental fall from a waggon; male, 70 years, accidentally thrown from a waggon; female, 19 years, accidentally burnt; male, 63 years, natural causes, degenerated kidneys and cystitis.

There were four deaths returned as “not certified” out of a total of 155 deaths:—male, 1 year, convulsions; male, 1 day, premature birth; male, 1 day, premature birth; female, 2 hours, premature birth.

There was one death of an illegitimate child out of 246 births:—female, 8 months, convulsions, certified.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

No proceedings were taken before the magistrates during the year.

No cases occurred in which it was necessary to condemn meat or any other article of food.

The bakehouses have been inspected at intervals and they have been kept in a cleanly state.

The slaughter-houses have been well kept.

There is one common lodging-house in the district, and this has been kept clean.

## PETWORTH RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 10 years 1876-85.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1876 .....	157	26	19	2	7	41	62
1877 .....	148	19	5	11	7	40	66
1878 .....	184	31	11	11	11	37	83
1879 .....	160	28	13	13	11	27	68
1880 .....	136	16	10	9	8	27	66
1881 .. ..	158	28	10	9	9	34	68
1882 .....	125	17	8	6	8	31	55
1883 .....	171	25	13	6	6	41	80
1884 .....	140	19	10	8	8	29	66
1885 .....	155	20	16	5	8	34	72
Total .....	1534	229	115	80	83	341	686
In 1000 Deaths...	1000	150	75	52	54	222	447

TABLE 2.—Showing the Deaths and Death-rate in each of the 10 years 1876-85, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric.	Other.							
1876	..	..	3	4	2	..	..	..	1	1	..	..	3	14	1.4
1877	1	1	..	5	3	..	..	..	1	..	..	..	..	8	0.8
1878	..	..	..	6	3	..	..	..	3	..	..	..	1	17	1.7
1879	..	..	..	8	1	..	..	..	1	1	..	..	1	13	1.3
1880	..	3	3	2	2	..	1	..	..	1	..	..	..	12	1.2
1881	..	..	..	3	..	..	1	..	..	..	..	..	..	4	0.4
1882	..	..	..	1	3	..	..	..	3	..	1	..	..	8	0.8
1883	..	..	1	..	1	..	2	..	2	1	2	..	..	9	0.9
1884	..	..	..	2	1	..	..	..	..	..	..	2	..	5	0.5
1885	..	..	..	4	2	..	2	..	1	..	1	..	..	10	1.0
Tl.	1	4	7	35	15	..	11	..	12	4	4	3	4	100	1.0

## PETWORTH RURAL SANITARY DISTRICT.

TABLE 3.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 10 years, 1876-85.

PARISH.	Population in 1885.	Continued Fever			Whooping Cough.	Diphtheria.	Scarlatina.	Measles.	Small Pox.	Typhus.	Enteric or Typhoid	Other or doubtful.	Diarrhoea & Dysentery	Rheumatic Fever.	Erysipelas.	Pyæmia.	Fæbrile Fever.	TOTAL.
		...	...	...														
North Sub-District.	Wisboro' Green	1650	..	..	2	3	..	..	..	1	..	..	..	..	..	..	..	5
	Northchapel ..	790	..	..	2	9	..	..	..	..	..	..	..	..	..	..	..	12
	Kirdford .....	1700	..	..	2	10	..	..	..	1	..	..	..	..	..	..	..	15
	Petworth .....	2940	..	4	7	7	6	..	1	..	..	..	7	1	4	..	..	46
	Egdean .....	75	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	7
	Fittleworth .....	700	..	..	..	2	..	..	..	..	..	..	2	..	..	..	..	7
	Stopham .....	160	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	3
	Coates .....	60	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	3
	Burton .....	70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	Duncton .....	265	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
South Sub-District.	Barlavington ..	180	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	Sutton .....	310	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
	Bignor .....	130	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	Bury .....	520	..	..	2	5	1	..	..	..	..	..	1	..	..	1	..	10
Whole District ..	9550	1	4	7	35	15	11	..	12	4	4	3	4	3	4	100		

## PETWORTH RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 10 years 1876-85.

LOCALITY.	Deaths during the 10 years 1876-85, from					Annual Death-rate per 100,000 living, from					
	Population in middle of the period.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
North Sub-District . . . . .	4165	655	32	61	142	47	1572	77	146	341	112
Petworth Parish . . . . .	2950	492	46	58	68	38	1667	156	196	230	128
South Sub-District . . . . .	2461	387	22	26	54	45	1572	89	105	219	182
Whole District . . . . .	9576	1534	100	145	264	130	1590	103	150	273	135
In 1876 . . . . .	9885	157	14	11	27	12	1588	141	111	273	121
In 1877 . . . . .	9833	148	8	19	20	13	1505	81	193	203	132
In 1878 . . . . .	9780	184	17	17	34	8	1881	173	173	346	82
In 1879 . . . . .	9657	160	13	17	35	15	1656	134	175	362	155
In 1880 . . . . .	9603	136	12	12	22	6	1416	124	124	229	62
In 1881 . . . . .	9550	158	4	13	38	16	1654	41	136	397	167
In 1882 . . . . .	9500	125	8	12	17	12	1315	84	126	179	126
In 1883 . . . . .	9500	171	9	15	26	18	1800	94	158	273	189
In 1884 . . . . .	9550	140	5	14	20	22	1466	52	146	209	230
In 1885 . . . . .	9550	155	10	15	25	8	1663	104	156	261	83

TABLE A.—Showing the Deaths during the year 1885, in the Rural Sanitary District of Petworth, and showing also the Population of the same.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							12
	CENSUS 1881	Estimated to middle of 1885		At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
NORTH SUB-DIST.	4160	4140	117	60	8	11	2	2	15	22	Under 5. ..... 5 upwds
PETWORTH PARISH.	2942	2940	79	44	6	2	1	3	11	21	Under 5. ..... 5 upwds
REST OF SOUTH SUB-DIST.	2493	2470	50	38	5	3	2	3	6	19	Under 5. ..... 5 upwds
PETWORTH WORKHOUSE.				7	1	—	—	—	2	4	Under 5. ..... 5 upwds
KIRDFORD WORKHOUSE.				6	—	—	—	—	—	6	Under 5. ..... 5 upwds
WISBOROUGH GREEN WORKHOUSE.											Under 5. ..... 5 upwds
PETWORTH COTTAGE HOSPITAL.											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
TOTALS .....	9595	9550	246	155	20	16	5	8	34	72	Under 5. ..... 5 upwds
Deaths occurring outside the district among persons belonging thereto.....											Under 5. ..... 5 upwds
Deaths occurring within the District among persons not belonging thereto .....											Under 5. ..... 5 upwds



TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the District of PETWORTH, classified according to the Nature of the Sickness.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF PETWORTH.							C 1
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough 18	
North Sub-District	Under 5						1	
	5 upwds.				5		2	
Petworth Parish	Under 5						2	
	5 upwds.			1				
Rest of South Sub-District	Under 5			5			2	
	5 upwds.			7	1		1	
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
Totals	Under 5			5			5	
	5 upwds.			8	6		3	

Sources of information : In Workhouse and Workhouse  
In Petworth

the Medical Officer of Health, during the year 1885, in the Rural Sanitary District according to Localities and Diseases.

THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE.										
Years.	Typhoid	Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record.
1880	21	22	23	24	25	26	27	28		
		1								
		3								
		9								
		3								
		10								

Dispensary, 10. Among Out-door Paupers, 553.  
 Cottage Hospital, 10.

Report of the Board of Health during the year 1904 in the State of New York  
 Part II. Sanitation and Hygiene

Other diseases such as (Cholera, Typhoid, Typhus, and the Malaria Group of febrile types, and Dengue)	Total Number		Deaths		Total Deaths
	Males	Females	Males	Females	
Cholera	1	1	1	1	1
Typhoid	10	10	10	10	10
Typhus	5	5	5	5	5
Malaria	100	100	100	100	100
Dengue	50	50	50	50	50
Other febrile types	100	100	100	100	100
Total	176	176	176	176	176

## RURAL SANITARY DISTRICT OF THAKEHAM.

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POPULATION, 8,335 IN 1871 ; 8,285 IN 1881. AREA IN ACRES, 40,636. NO. OF HOUSES, 1,705 IN 1871 ; 1,652 IN 1881.

During the year 1885 the births of 261 children and the deaths of 119 persons were registered ; of the births, 133 were male and 128 were female ; of the deaths, 59 were male and 60 were female.

There were 8 deaths in Thakeham Workhouse, and these have been distributed among the several parishes whence each inmate came, viz., Pulborough 4, West Chiltington 1, Storrington 1, Ashington 1, Washington 1 ; in all—8.

The deaths in each parish were thus distributed :—North Stoke 1, Amberley 3, Rackham 1, Greatham 1, Hardham 1, Cold Waltham 5, Wiggonholt 1, Pulborough 33, West Chiltington 8, Parham 2, Storrington 22, Sullington 3, Thakeham 6, Warminghurst 3, Ashington 3, Wiston 3, Washington 13, Findon 10 ; in all—119.

The above figures include the deaths of two persons in Worthing Infirmary belonging to Findon, and of one person belonging to Washington who died suddenly at Worthing.

The births and deaths in the whole of the district during the past ten years have been as follows :—

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1876 ..	272	32·5	128	15·3
1877 ..	284	34·0	107	12·8
1878 ..	257	30·8	141	16·9
1879 ..	275	33·0	127	15·2
1880 ..	269	32·4	148	17·8
1881 ..	231	27·8	114	13·7
1882 ..	251	30·3	103	12·4
1883 ..	232	28·0	121	14·6
1884 ..	247	29·9	126	15·2
1885 ..	261	31·6	119	14·4

During the past ten years there have been in this district 2,579 births and 1,234 deaths. The natural increase of population during this period by excess of births over deaths was, therefore, 1,345. The estimated *decrease* of population during the same period is 107, so that over 1,450 persons must have migrated into other districts.

In each quarter the births and deaths were as follows:—

	Births.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
1st Quarter ..	31	30	61	21	15	36
2nd „ ..	40	33	73	14	16	30
3rd „ ..	31	39	70	15	16	31
4th „ ..	31	26	57	9	13	22
Total ..	133	128	261	59	60	119

The births appear to be most numerous in the first and second quarters of the year:—

	1879-83	1884.	1885.	Total.	Mean.
1st Quarter ..	347	69	61	477	68
2nd „ ..	312	71	73	456	65
3rd „ ..	291	59	70	420	60
4th „ ..	308	48	57	413	59
Total ..	1258	247	261	1766	252

The following table shows the birth-rate in various localities, during the last ten years, and as the populations are similar in age and occupation the rates are pretty uniform throughout the district:—

	1876-83.	1884.	1885.	Mean.
Pulborough Parish	33·0	29·9	38·8	33·2
Rest of Pulborough S. D.	29·7	29·9	26·6	29·4
Storrington Parish	26·6	37·7	30·0	28·0
Rest of Washington S. D.	32·4	26·6	31·5	31·7
Total ..	31·1	29·9	31·6	31·0

The *birth-rate* in 1885 throughout England and Wales was equal to 32·5 per 1000 persons estimated to be living in the middle of the year; it was lower than in any previous year since 1848, and it was 2·2 below the mean annual rate in the ten years 1875-84.

The deaths at different groups of ages in each quarter are here given:—

	Under one year.	1-5.	5-15.	15-25.	25-60.	60 and Upwds.	Total.
1st Quarter ..	6	6	1	1	5	17	36
2nd „ ..	4	3	4	3	8	8	30
3rd „ ..	6	4	2	1	7	11	31
4th „ ..	5	—	1	—	8	8	22
Total ..	21	13	8	5	28	44	119

A comparative statement of the deaths in each quarter during the past ten years shows that the deaths are most numerous in the first and second quarters of the year,

	1876-83.	1884.	1885.	Total.	Mean.
1st Quarter ..	284	27	36	347	34.7
2nd „ ..	252	35	30	317	31.7
3rd „ ..	218	26	31	275	27.5
4th „ ..	235	38	22	295	29.5
Total ..	989	126	119	1234	123.4

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under 1 year.	Ratio to 1000 Births.
Pulborough Parish .....	70	7	100
Rest of Pulborough S. D. ....	56	6	107
Storrington Parish .....	39	4	102
Rest of Washington S. D. ....	96	4	41
Total .....	261	21	80

The rate of infant mortality throughout England and Wales was equal to 138 per 1000, against 141, 137, and 147 in the three preceding years.

The following table shows the rate of infant mortality during the past ten years in various localities; and in each case the rate is low :—

	1876-83.	1884.	1885.	Mean.
Pulborough Parish ....	76	92	160	80
Rest of Pulborough S. D. ....	111	79	107	107
Storrington Parish.....	66	41	102	67
Rest of Washington S.D. ....	64	61	41	61
Total .....	79	68	80	78

The 21 *infantile* deaths in 1885 included one from diphtheria, one from erysipelas, one from convulsions, four from bronchitis, one from intussusception, one from peritonitis, three from debility, and one from natural causes, while eight were born prematurely.

The deaths from *zymotic*, or catching, disorders were 14 in number against 20, 8, 9, 9, 29, 6, 6, 7, and 12 in the preceding nine years. The 14 deaths in 1885 included three from scarlatina, five from diphtheria, two from whooping-cough, two from diarrhoea, and two from erysipelas.

The rate of mortality from these diseases was 1·6 per 1000 persons living against a rate of 2·3, 0·9, 1·0, 1·0, 3·4, 0·7, 0·7, 0·8, and 1·4 in the previous nine years.

During the past ten years there have been altogether 120 deaths in this class of disorders, or a mean annual rate of 1·4 per 1000 persons living.

*Diphtheria* was imported into this district in May, and it caused five deaths. Nutbourne is a hamlet in the parish of Pulborough. In this hamlet there dwelt Albert P., with his wife and five children, in an old cottage near the "Rising Sun" inn. A daughter, Emma P., 10 years old, went on a visit in April to her aunt at Bognor, and she came home to Nutbourne with a sore throat on May 2nd; she was taken ill at Bognor, and she was attended there by a medical man. The aunt had had two children, but they had died at Bognor from diphtheria, one in the previous December and the other in the previous January. Feeling lonely at the loss of these children, the aunt invited her niece, Emma P., to stay with her, and the niece, falling ill, brought the disease back with her to Nutbourne. If this be the case, there must have been an interval of three months between the death of the second child and the arrival of the niece at Bognor. The girl recovered slowly, but at the end of July her speech was much affected, and there was some wasting of the tonsils. On July 10th her sister, Bathia P., 6 years old, was taken ill, but she recovered; on July 15th another sister, Annie P., 3½ years old, was attacked, and she died with croupy breathing on July 19th. A brother, William P., 8 years old, fell ill on July 18th, but he recovered. The parents and an infant 2 years old were not attacked. The cottage, though old, was large, neat, and clean, with plenty of garden space in front and at the back. The water was of good quality, and there were no drains in the house. At the "Rising Sun," a few yards away, there lived Mr. and Mrs. L., and a young servant, Rose B., 16 years old. This servant was intimate with Emma P., the first attacked, and she fell ill on July 17th. The next day she was sent home to her parents' cottage at Thorn's Common, another small hamlet in the parish of Pulborough. No one else at the "Rising Sun" was attacked. At Thorn's Common, at the girl's home, there dwelt George B., wife, and five other children. When Rose B. came back ill, the weather being fine and warm, the five children slept in a wood-house until August 24th, and not one of them was attacked. Rose B. was nursed by her mother, but she died on August 2nd, when the cottage was cleansed and disinfected. Mrs. W., a married sister of Rose B., came to see her when she was ill, and on July 20th, bringing her baby with her, she walked into Pulborough with Rose B. to see a medical man. Mrs. W. did not have the disorder, but her baby, 9 weeks old, fell ill on August 11th and it died on August 13th at Rose B.'s home. The

cottage was again fumigated on August 14th, and no other cases occurred at Thorn's Common. The cottage was small, but neat and clean, and there were no drains in the house; the water was of good quality. In the meantime, some other cases occurred at Nutbourne. Close to the "Rising Sun" there was a cottage occupied by William J., wife, three young children and a boy, William B., who used to work on the farm. William B., 14 years old, was taken ill on July 31st and he died on August 5th. He was intimate with Rose B., and he used to see her every day. He most likely caught the disease from her, and if so, the incubation period in this case must have been a fortnight. Priscilla J.,  $5\frac{3}{4}$  years old, lived in the same house with William B.; she fell ill on August 3rd and she died on August 11th. The parents and two other boys, aged respectively 11 years and 8 years, escaped. At Mare Hill, distant about a mile, there was a cottage occupied by some cousins of the last case, who were also intimate with the first case, Emma P. This cottage was in an elevated position on a sandy soil; there were no drains in the house, and the place was neat and clean. In this cottage there dwelt Mark J., wife, three sons, and a daughter. The daughter, Louisa J.,  $12\frac{3}{4}$  years old, was ill with a sore throat in June, but it was not deemed infectious; her brother, James J., 19 years old, fell ill on August 1st, having felt unwell for the previous week; and another brother, Mark George J., 21 years old, was attacked also on August 1st. All these recovered, while the parents and another son, 17 years old, escaped.

In each case, there were no sanitary defects common to all, and in each case the water was of good quality. There was no history of school attendance to explain the outbreak, nor were the sore throats considered to be infectious until the middle of July. In each instance there was a distinct history of infection taking place from one to another, and there was no instance of anyone falling ill who had not been exposed to one suffering from the disorder. Some minor nuisances were remedied, and each cottage was well cleansed and fumigated; after the middle of August there were no more cases. The disease appeared altogether in five houses, and with fatal results in three of them. Reckoning all those above 15 years of age as adults, it will be seen that there were 15 adults and 16 children exposed to the disease. Of the 15 adults, only the two young men in the last case at Mare Hill were attacked and they recovered, while the servant girl at the inn died at her parents' home; the remaining 12 adults, who were all married and had reached middle life, escaped.

Of the 16 children, 9 were attacked and 5 died, while 8 escaped altogether. Of the five houses, three were very near each other at Nutbourne, one was about four miles distant at Thorn's Common, and one about a mile away at Mare Hill.

The following summary shows the condition of this district during three decades, so far as it can be told by means of death-rates.

The figures show a marked improvement in recent years over the rates which prevailed twenty and thirty years ago:—

Per 100,000 Persons living,	1851-60.	1861-70	1876-85.
All ages, both sexes.			
General Death-rate ..	1824	1649	1486
Zymotic ,, ..	402	292	144
Phthisis ,, ..	285	221	150
Lung Disease ,, ..	189	197	263
	} 474	} 418	} 413
15 to 55 years.			
Phthisis Death-rate ..	{ 454 mean 560 female	{ 356 mean 379 female	{ 256 mean 261 female
Lung Disease ,,	{ 43 mean 45 female	{ 61 mean 45 female	{ 62 mean 52 female
Under 1 year .. ..	?	9763	8487
Under 5 years .. ..	3497	3317	2732

*Inquests* were held in eight cases:—Female, 10 days, natural causes, disease of the lungs; female, 7 years, accidentally burnt; male, 44 years, found drowned; male, 28 years, accidental fall into a ditch; male, 55 years, suicide by drowning; male, 8 years, died from injuries received by being tied to a cow's leg; male, 1 year, accidentally drowned; male, 62 years, accidentally run over by a wagon.

There were four deaths returned as "not certified" in the Pulborough sub-district out of a total of 54 deaths:—Male, 5 hours, premature birth; male 1 hour, female, 2 hours, and male, 8 hours (a case of triplets), from insufficient vitality.

There were no deaths returned as "not certified" in the Washington sub-district out of a total of 65 deaths.

There were five deaths of illegitimate children out of a total of 261 births:—Female, 10 days, natural causes, disease of the lungs, inquest held; male, 1 year, tuberculosis, marasmus, certified; male, 14 months, whooping-cough, certified; male, 2 years, pneumonia, certified; female, 7 years, tubercular meningitis, certified.

No proceedings were taken before the magistrates during the year.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

No cases occurred in which it was necessary to condemn meat or any other article of food.

The bakehouses have been inspected at intervals and they have been kept in a cleanly state.

The slaughter-houses have been well kept.

There is no common lodging-house in the district.

The proceedings were taken before the magistrates during the  
 term of the court. A few cases of overcrowding have been dealt with during the  
 term, and the nuisance has been abated.  
 No cases occurred in which it was necessary to remove a  
 person or any other article of food.  
 The slaughter-houses have been inspected at intervals, and they  
 have been kept in a sanitary state.  
 The slaughter-houses have been well kept.  
 There is no common lodging-house in the district.

No.	Name of the Slaughter-house	Inspector	Date of Inspection	Remarks
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

No.	Name of the Slaughter-house	Inspector	Date of Inspection	Remarks
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

## THAKEHAM RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 10 years 1876-85.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1876 .....	128	28	7	4	9	25	55
1877 .....	107	16	10	4	5	27	45
1878 .....	141	26	8	4	9	28	66
1879 .....	127	20	7	4	6	23	67
1880 .....	148	32	20	7	9	34	46
1881 .....	114	14	10	6	6	32	46
1882 .....	103	9	12	4	4	22	52
1883 .....	121	19	11	3	7	32	49
1884 .....	126	17	12	9	5	31	52
1885 .....	119	21	13	8	5	28	44
Total .....	1234	202	110	53	65	282	522
In 1000 Deaths...	1000	164	89	43	52	229	423

TABLE 2.—Showing the Deaths and Death-rate in each of the 10 years 1876-85, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fe	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric.	Other.							
1876	1	4	..	9	1	..	..	4	..	1	..	..	20	2.3	
1877	..	6	..	1	..	..	..	..	..	..	1	..	8	0.9	
1878	2	..	..	..	2	1	..	2	..	2	..	..	9	1.0	
1879	..	1	..	1	3	1	..	2	1	..	1	..	9	1.0	
1880	1	1	..	3	4	..	..	3	..	..	..	..	29	3.4	
1881	..	2	..	3	..	..	..	1	..	..	..	..	6	0.7	
1882	1	1	..	2	..	1	..	..	1	..	..	..	6	0.7	
1883	..	1	..	2	..	2	..	2	..	..	..	..	7	0.8	
1884	..	1	..	1	3	1	1	..	..	3	..	2	12	1.4	
1885	..	3	..	5	2	..	..	2	..	2	..	..	14	1.6	
Tl.	5	19	14	44	2	6	..	16	2	8	2	2	120	1.4	

## THAKEHAM RURAL SANITARY DISTRICT.

TABLE 3.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 10 years, 1876-85.

PARISH.	Population in 1885.	Continued Fever			Whooping Cough.	Diphtheria.	Scarlatina.	Measles.	Small Pox.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Eruptive Fever.	Total.
		Typhus.	Enteric or Typhoid	Other or doubtful.										
North Stoke.....	105	..	..	..	1	..	..	..	..	..	..	..	..	1
Amberley.....	600	..	..	..	1	..	..	..	..	..	..	..	..	10
Rackham.....	160	..	..	..	4	..	..	..	..	..	..	..	..	6
Greatham.....	60	..	..	..	..	..	..	..	..	..	..	..	..	1
Hardham.....	100	..	..	..	..	..	..	..	..	..	..	..	..	1
Cold Waltham..	380	..	..	..	4	..	..	..	..	..	..	..	..	4
Wiggonholt....	38	..	..	..	1	..	..	..	..	..	..	..	..	1
Pulborough ..	1805	..	2	..	7	6	1	..	..	..	1	..	1	26
WestChiltington	662	..	1	..	4	..	..	..	..	..	2	..	..	8
Parham.....	90	..	..	..	..	..	..	..	..	..	..	..	..	1
Storrington....	1300	..	2	..	6	5	1	..	..	..	2	..	..	21
Sullington....	195	..	..	..	2	2	..	..	..	..	..	..	1	6
Thakeham.....	540	..	..	..	3	..	..	..	..	..	..	..	..	7
Warminghurst	90	..	..	..	..	3	..	..	..	..	..	..	..	5
Ashington.....	250	..	..	..	1	..	..	..	..	..	..	..	..	3
Wiston.....	315	..	..	..	2	..	..	..	..	..	..	..	..	3
Washington ..	840	..	..	..	6	1	..	..	..	..	..	..	..	11
Findon.....	720	..	..	..	2	3	1	..	..	..	..	..	..	8
Whole District..	8250	..	6	..	44	14	5	..	..	2	8	2	..	120

## THAKEHAM RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 10 years 1876-85.

LOCALITY.	Deaths during the 10 years 1876-85, from						Annual Death-rate per 100,000 living from				
	Population in middle of the period.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Pulborough Parish . . . .	1810	276	26	31	35	21	1524	143	171	193	116
Rest of Pulborough S.D.	2100	338	30	37	55	27	1609	142	176	261	128
Storrington Parish . . . .	1320	199	21	21	49	15	1507	159	159	371	113
Rest of Washington S.D.	3070	421	43	36	80	36	1371	140	117	260	117
Whole District. . . . .	8300	1234	120	125	219	99	1486	144	150	263	119
In 1876. . . . .	8357	128	20	13	13	19	1531	239	155	155	227
In 1877. . . . .	8343	107	8	9	21	2	1282	95	107	251	24
In 1878. . . . .	8330	141	9	16	26	11	1692	108	192	312	132
In 1879. . . . .	8316	127	9	9	26	16	1527	108	108	312	192
In 1880. . . . .	8302	148	29	15	28	8	1782	349	180	337	96
In 1881. . . . .	8290	114	6	17	14	8	1375	72	205	168	96
In 1882. . . . .	8280	103	6	11	20	8	1243	72	132	241	96
In 1883. . . . .	8280	121	7	15	20	9	1461	84	181	241	108
In 1884. . . . .	8250	126	12	10	24	8	1527	145	121	290	96
In 1885. . . . .	8250	119	14	10	27	10	1442	169	121	327	121

TABLE A.—Showing the Deaths during the year 1885, in the Rural Sanitary District of Washington, and showing also the Population of the same

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								12
	CENSUS 1881	Estimated to middle of 1885		At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.		
1	2	3	4	5	6	7	8	9	10	11	12	
PULBOROUGH PARISH.	1808	1805	70	29	7	5	4	3	6	4	Under 5. ..... 5 upwds	
REST OF PULBOROUGH SUB-DISTRICT.	2080	2105	56	20	5	3	—	—	4	8	Under 5. ..... 5 upwds	
STORRINGTON PARISH.	1351	1300	39	21	4	2	2	1	7	5	Under 5. ..... 5 upwds	
REST OF WASHINGTON SUB-DISTRICT.	3046	3040	96	38	4	3	2	1	7	21	Under 5. ..... 5 upwds	
THAKEHAM WORKHOUSE.				8	1	—	—	—	1	6	Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
											Under 5. ..... 5 upwds	
TOTALS .....	8285	8250	261	116	21	13	8	5	25	44	Under 5. ..... 5 upwds	
Deaths occurring outside the district among persons belonging thereto.....				3					3		Under 5. ..... 5 upwds	
Deaths occurring within the District among persons not belonging thereto .....											Under 5. ..... 5 upwds	



TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the District of THAKEHAM, class

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF THAKEHAM						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough 18
Pulborough Parish	Under 5 5 upwds.			1 1			
Rest of Pulborough Sub-Dis.	Under 5 5 upwds.			2 3			
Storrington Parish	Under 5 5 upwds.						
Rest of Washington Sub-Dis.	Under 5 5 upwds.		4				
	Under 5 5 upwds.						
	Under 5 5 upwds.						
	Under 5 5 upwds.						
	Under 5 5 upwds.						
	Under 5 5 upwds.						
	Under 5 5 upwds.						
Totals	Under 5 5 upwds.		4	3 4			

Sources of information : In Workhouse and Workhouse  
Infirmary 6. Out-patient

Medical Officer of Health, during the year 1885, in the Rural Sanitary District of Worthing to Localities and Diseases.

THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS

21	22	23	24	25	26	27	28	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record.
				1				
				1				
				1				
				3				

Summary, 51. Among Out-door Paupers, 163. In-patients of Worthing and Worthing Infirmary 39.



## RURAL SANITARY DISTRICT OF EAST PRESTON.

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POPULATION, 7,680 IN 1871 ; 8,025 IN 1881. AREA IN ACRES,  
30,696. NO. OF HOUSES, 1,467 IN 1871 ; 1,662 IN 1881.

During the year 1885 the births of 234 children and the deaths of 132 persons were registered ; of the births, 121 were male, and 113 were female ; of the deaths, 72 were male, and 60 were female.

There were 146 deaths registered in the rural sanitary district, but 15 of these occurred in the East Preston Workhouse, and belonged to places outside of the district, viz., Worthing 11, Littlehampton 3, and Arundel 1. These 15 deaths are therefore included in the reports of those urban sanitary districts. There were also four other deaths in the Workhouse of persons belonging to this district, and these have been distributed among the several parishes whence each inmate came, viz., Heene 1, West Tarring 1, Leominster 2 ; in all—4. There was also one death in the Worthing Infirmary which is included in the above total of 132.

In each parish the deaths were thus distributed :—Broadwater 8, Heene 3, West Tarring 12, Clapham 7, Durrington 0, Goring 9, Ferring 7, Kingston 1, East Preston 3, Angmering 8, Leominster 25, Rustington 7, Climping 5, Ford 1, Tortington 5, Poling 6, Patching 8, Angmering (north) 1, Warningcamp 3, Leominster (north) 6, Burpham 2, South Stoke 3, Houghton 2 ; in all—132.

During the past ten years there have been 2421 births and 1237 deaths, so that the natural increase of population during this period by excess of births over deaths is, therefore 1184. The estimated increase of the population during the same period is rather more than 1000.

In October 1883, Angmering north (28 houses and 130 persons), and Leominster north (85 houses and 413 persons) were transferred from the Littlehampton sub-district, to the Arundel sub-district, and the tables appended have been altered in accordance with this change ; there is no alteration in the Worthing Sub-district.

The births and deaths in the whole of the district during the last ten years have been as follows:—

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1876 ..	220	29·4	126	16·8
1877 ..	234	30·8	131	17·2
1878 ..	235	30·4	131	16·9
1879 ..	234	30·0	125	15·9
1880 ..	256	32·2	121	15·2
1881 ..	233	28·8	128	15·8
1882 ..	266	32·3	97	11·7
1883 ..	262	31·4	130	15·6
1884 ..	247	29·5	116	13·8
1885 ..	234	27·4	132	15·4

In each quarter the births and deaths were as follows:—

	Births.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
1st Quarter ..	38	28	66	28	18	46
2nd „ ..	24	23	47	9	12	21
3rd „ ..	30	31	61	14	12	26
4th „ ..	29	31	60	21	18	39
Total ..	121	113	234	72	60	132

A comparative statement of the births in each quarter during a term of seven years shows that the mean number varies very slightly:—

	1879-83	1884.	1885.	Total.	Mean.
1st Quarter ..	308	55	66	429	61
2nd „ ..	315	57	47	419	60
3rd „ ..	318	72	61	451	64
4th „ ..	310	63	60	433	62
Total ..	1251	247	234	1732	247

The following table shows the birth-rate in each sub-district during the last nine years:—

	1877-83.	1884.	1885.	Mean.
Worthing Sub-District	31·0	29·5	25·0	30·2
Littlehampton „	30·8	31·6	31·9	31·0
Arundel „	30·5	26·1	23·5	29·0
Total ..	30·8	30·8	27·4	30·4

The *birth-rate* in 1885 throughout England and Wales was equal to 32·5 per 1000 persons estimated to be living in the middle of the year; it was lower than in any previous year since 1848, and it was 2·2 below the mean annual rate in the ten years 1875-84.

The deaths at different groups of ages in each quarter are here shown :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and over.	Total.
1st Quarter ..	10	4	2	1	6	23	46
2nd „ ..	3	2	—	2	7	7	21
3rd „ ..	3	1	2	2	4	14	26
4th „ ..	3	4	3	3	13	13	39
	—	—	—	—	—	—	—
Total ..	19	11	7	8	30	57	132

A comparative statement of the deaths in each quarter during the last ten years shows that the deaths are most numerous in the first quarter of the year.

	1876-83.	1884.	1885.	Total.	Mean.
1st Quarter ..	284	24	46	354	35·4
2nd „ ..	241	31	21	293	29·3
3rd „ ..	240	23	26	289	28·9
4th „ ..	224	38	39	301	30·1
	—	—	—	—	—
Total ..	989	116	132	1237	123·7

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under 1 year.	Ratio to 1000 Births.
Worthing Sub-District .....	80	4	50
Littlehampton „ .....	108	11	101
Arundel „ .....	46	4	87
	—	—	—
Total .....	234	19	81

The rate of infant mortality in 1885 throughout England and Wales was equal to 138 per 1000, against 141, 137, and 147 in the three preceding years.

The following table shows the rate of infant mortality during the past ten years; in each locality the rate is low :—

	1876-83.	1884.	1885.	Mean.
Worthing Sub-District ..	103	88	50	96
Littlehampton „ ..	78	84	101	81
Arundel „ ..	82	120	87	86
	—	—	—	—
Total .....	87	93	81	87

The 19 *infantile deaths* in 1885 included two from diarrhoea, two from convulsions, seven from lung diseases, three from debility, and one from improper feeding; one infant was murdered, one was found drowned, and two were born prematurely.

The deaths from *zymotic*, or catching, disorders were 8 in number against 20, 11, 14, 1, 16, 20, 7, 9, and 11 in the nine preceding years. The eight deaths included one from measles, one from scarlatina, two from diphtheria, two from whooping-cough, and two from diarrhoea. The rate of mortality from these diseases was 0.9 per 1000 persons living, against a rate of 2.6, 1.4, 1.8, 0.1, 2.0, 2.4, 0.8, 1.0, and 1.3 in the nine preceding years.

In the past ten years there have been altogether 117 deaths from this class of disorders, or a mean annual death-rate of 1.4 per 1000.

*Small-pox* was brought into the district in April.

In the main street of Wick, a hamlet in the parish of Leominster, there are four cottages occupied respectively by four different families. Mr. R., a master mariner, 37 years of age, came to his home at Wick, to No. 3., on April 18th; he had been to Newcastle and Sunderland with his ship to bring back coal to Newhaven. He left Sunderland on April 13th, having been there a fortnight. At this time there was much small-pox in Sunderland, although Mr. R. did not recollect having come in contact with a case. On April 17th, before his return home, he did not feel well, having pain in the back and sickness; a few spots appeared on April 19th, and the rash was plentiful on April 20th; after an attack of moderate severity he recovered. He had been vaccinated in infancy, but no marks could be seen. The other inmates of the house were--

Mrs. R.,	35 years,	twice vaccinated,	8 old marks.
Arthur,	8½	„	4 good marks.
Alice,	7	„	4 „
George,	4½	„	4 „
William,	2¼	„	4 „
Walter,	2 months	1	„

All the inmates were re-vaccinated in four places on the morning of April 21st, and, except in the case of the baby, the operation was successful in each instance. None of these persons caught the disease.

At No. 1, occupied by Mr. J., wife, and five children, the wife and three children, 13 years, 8 years, and 6 years of age, were all re-vaccinated successfully on April 28th, and the infant, 2 months old, was vaccinated successfully on the same day. The man and the eldest son, 18 years old, were not re-vaccinated.

At No. 4, occupied by Mr. M., wife, and three children, the wife and two children, 3 years and 2 years of age, were successfully re-vaccinated on April 21st, and the infant, 6 weeks old, was successfully vaccinated on the same day. The husband was not re-vaccinated. In neither of these houses did the small-pox attack any of the inmates.

The cottage No. 2 was occupied by Alice H. and her daughter Lily, 9 years of age. Lily H. was re-vaccinated successfully on April 28th, and she escaped having the disorder. The mother, Alice H., 31 years of age, would not be re-vaccinated at first, and the operation was not done until May 2nd, when three places rose; there were also three old marks. On May 7th she felt ill, and the rash of small-pox appeared on May 10th. A nurse was procured from Brighton on May 12th, and after a severe attack the woman recovered. The nurse was re-vaccinated successfully on May 14th. Mr. J., at No. 1, never had been vaccinated, but now, when the second case appeared, he consented, and he was successfully vaccinated on May 16th. His eldest son was vaccinated without success when an infant, but with success when 5 years old; he was also successfully re-vaccinated on May 16th. Mr. M., at No. 4, was also successfully re-vaccinated on May 19th, so that by this date the operation had been performed on every inmate of the four houses, except upon those two who had small-pox.

On May 18th, Mr. R. was quite well again, and the house No. 3 was well fumigated by burning sulphur in it for six hours; some clothing and bedding were burnt at the same time. On May 25th the nurse at No. 2 was unwell, and a few spots appeared on the face and arms on May 29th, but she was not confined to her bed and in a few days she was well again.

Alice H. was a laundress, and she not only washed Mr. R.'s clothes but she went into the house when he was ill. She would take no precautions at all, and her house was in a very dirty condition. On June 8th, Alice H. and the nurse being quite well, the house No. 2 was well fumigated, and some bedding and clothing were burnt at the same time. If Alice H. had been re-vaccinated when the disease first appeared, there would most likely have been no spread of the disorder.

In East-street, Wick, and not far from the above-named houses there is a cottage occupied by Mr. G., wife, and two young children. Mrs. G., 29 years of age, was taken poorly on July 1st, and the rash of small-pox appeared on July 2nd. A nurse came from Brighton on July 5th, and looked after the patient. Mr. G. and the two children were re-vaccinated on July 5th, and they left on the same day for Angmering, leaving only Mrs. G. and the nurse in the house. Mrs. G. had been vaccinated in infancy, but no marks could be seen; she had a severe attack, and recovered in about three weeks. The nurse had been vaccinated in infancy, and again successfully eight or nine years ago; she was re-vaccinated without success a year ago, and again now, when two places rose. She escaped the disorder, and there was no further spread of the small-pox. On August 6th the house was fumigated with burning sulphur for six hours, and some

bedding and clothing were burnt at the same time. Mrs. G. was sister to Alice H. but she was so alarmed about small-pox that she did not go near her sister when she was ill at No. 2. The illness of Mrs. G. having commenced on July 1st, she was probably exposed to the infection on or about June 17th or 18th, but ten days before that Alice H. was quite well again and the place had been well disinfected. A black silk dress belonging to Alice H. was sent to Mrs. G. to be made up for Lily H. about June 14th, and it was returned on June 27th. This dress was not worn by Alice H. when she was ill, but it was in a box in the same room; it is probable that this was the way in which the infection was carried.

In each case the house was well lime-washed and cleaned, and new bedding and clothing was given by the Sanitary Authority in compensation for what was destroyed.

*Measles* and *Whooping-cough* were very prevalent in the autumn, but the illness was very mild in character.

The following summary shows the condition of this district during three decades, so far as it can be told by means of death-rates.

The figures show a marked improvement in recent years over the rates which prevailed twenty and thirty years ago:—

Per 100,000 Persons living.	1851-60.	1861-70	1876-85.
All ages, both sexes.			
General Death-rate ..	1790	1822	1548
Zymotic ..	335	209	147
Phthisis ..	297	259	153
Lung Disease ..	166	221	265
	} 463	} 480	} 358
15 to 55 years.			
Phthisis Death-rate ..	{ 419 mean 445 female	{ 417 mean 393 female	{ 253 mean 288 female
Lung Disease ..	{ 46 mean 34 female	{ 61 mean 48 female	{ 82 mean 78 female
Under 1 year ..	?	11022	9590
Under 5 years ..	3967	4086	3041

*Inquests* were held in thirteen cases:—Female, newly-born, wilfully murdered; male, 14 months, bronchitis; male, 7 weeks, natural causes, accelerated by improper feeding; female, 23

years, found dead in the River Arun ; male, newly-born, found dead in the River Arun ; female, 13 weeks, natural causes, congestion of the lungs ; male, 2 years, accidentally scalded ; female, 67 years, failing action of heart ; male, 23 years, accidentally drowned ; male, 31 years, accidentally killed on the railway ; male, 56 years, accidental fall ; female, 76 years, found drowned ; male, 70 years, natural causes, syncope.

There was one death registered as "not certified" out of a total of 132 deaths :—Female, 80 years, senile decay, dropsy.

There was one death of an illegitimate child out of a total of 234 births :—Female, 13 weeks, natural causes, congestion of the lungs, inquest held.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

No cases occurred in which it was necessary to condemn meat or any other article of food.

The bakehouses have been inspected at intervals and they have been kept in a cleanly state.

The slaughter-houses have been well kept.

There is no common lodging-house in the district.

No proceedings were taken before the magistrates during the year.

The following table shows the results of the experiments conducted during the year 1911. The first column gives the date of the experiment, the second column the number of subjects, the third column the number of trials, the fourth column the number of correct responses, and the fifth column the percentage of correct responses. The results show that the percentage of correct responses increases with the number of trials and with the number of subjects. The percentage of correct responses is also higher when the subjects are given more trials and when the subjects are given more subjects.

Date	No. of Subjects	No. of Trials	No. of Correct Responses	% Correct Responses
Jan. 1	10	10	8	80
Jan. 2	10	20	15	75
Jan. 3	10	30	20	66.7
Jan. 4	10	40	25	62.5
Jan. 5	10	50	30	60
Jan. 6	10	60	35	58.3
Jan. 7	10	70	40	57.1
Jan. 8	10	80	45	56.25
Jan. 9	10	90	50	55.56
Jan. 10	10	100	55	55

Date	No. of Subjects	No. of Trials	No. of Correct Responses	% Correct Responses
Jan. 11	10	110	60	54.55
Jan. 12	10	120	65	54.17
Jan. 13	10	130	70	53.85
Jan. 14	10	140	75	53.57
Jan. 15	10	150	80	53.33
Jan. 16	10	160	85	53.13
Jan. 17	10	170	90	52.94
Jan. 18	10	180	95	52.78
Jan. 19	10	190	100	52.63
Jan. 20	10	200	105	52.5

## EAST PRESTON RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 10 years 1876-85.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1876 .....	126	19	24	8	7	28	40
1877 .....	131	19	9	15	9	27	52
1878 .....	131	22	18	3	6	27	55
1879 .....	125	24	6	5	8	27	55
1880 .....	121	27	9	6	3	31	45
1881 .....	128	22	5	13	7	28	53
1882 .....	97	15	14	3	5	25	35
1883 .....	130	21	11	5	4	34	55
1884 .....	116	23	12	7	4	30	40
1885 .....	132	19	11	7	8	30	57
Total .....	1237	211	119	72	61	287	487
In 1000 Deaths...	1000	170	96	58	50	232	394

TABLE 2.—Showing the Deaths and Death-rate in each of the 10 years 1876-85, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric.	Other.							
1876	3	4	2	2	2	1	1	6	1	1	..	..	20	2.6	
1877	..	4	2	2	..	3	..	5	..	..	..	..	11	1.4	
1878	..	2	2	4	..	1	..	5	..	..	..	..	14	1.8	
1879	..	..	..	..	..	1	..	..	..	..	..	..	1	0.1	
1880	1	1	2	2	2	3	..	6	..	1	..	..	16	2.0	
1881	..	5	9	1	1	..	..	1	2	1	..	..	20	2.4	
1882	..	..	1	5	..	1	..	..	..	..	..	..	7	0.8	
1883	6	..	1	..	..	..	..	2	..	..	..	..	9	1.0	
1884	2	2	4	..	..	..	..	2	..	1	..	..	11	1.3	
1885	1	1	2	2	2	..	..	2	..	..	..	..	8	0.9	
Tl.	13	19	25	16	16	10	1	26	2	4	1	1	117	1.4	

## EAST PRESTON RURAL SANITARY DISTRICT.

TABLE 3.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 10 years, 1876-85.

PARISH.	Population in 1885.	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Continued Fever			Diarrhea & Dysentery	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Total.
							Typhus.	Enteric or Typhoid	Other or doubtful.						
Broadwater.....	1020	..	3	8	1	2	..	2	1	1	..	..	1	19	
Heene.....	160	..	..	1	1	..	..	1	..	..	..	..	..	4	
West Tarring..	820	..	1	1	1	..	..	1	6	1	1	..	..	13	
Clapham.....	240	..	..	1	..	1	..	..	1	..	..	..	..	3	
Durrington....	180	..	..	..	1	..	..	1	..	..	..	..	..	2	
Goring.....	540	..	3	1	8	..	..	2	2	..	..	..	..	14	
Ferring.....	230	..	..	1	..	..	..	..	..	..	..	..	..	3	
Kingston.....	35	..	..	..	..	..	..	..	..	..	..	..	..	1	
East Preston ..	440	..	1	..	..	1	..	..	..	..	..	..	..	2	
Angmering....	1010	..	..	2	4	2	..	..	2	..	..	..	..	10	
Leominster....	1710	..	2	1	5	6	..	1	11	..	1	..	..	27	
Rustington....	365	..	..	..	..	1	..	..	..	..	..	..	..	1	
Climping.....	280	..	1	..	3	1	..	..	..	..	..	..	..	5	
Ford.....	100	..	..	..	1	..	..	..	..	..	..	..	..	1	
Tortington....	200	..	1	..	..	..	..	1	..	..	..	..	..	2	
Poling.....	180	..	..	..	..	1	..	..	..	..	2	..	..	3	
Patching.....	275	..	1	1	..	..	..	..	..	..	..	..	..	2	
Warningcamp	130	..	..	..	..	..	..	1	1	..	..	..	..	2	
Burpham.....	285	..	..	..	..	..	..	..	1	1	..	..	..	2	
South Stoke ..	135	..	..	1	..	..	..	..	..	..	..	..	..	1	
Houghton ....	195	..	..	..	..	..	..	..	..	..	..	..	..	1	
Whole District..	8530	—	13	19	25	16	—	10	1	26	2	4	—	117	

## EAST PRESTON RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 10 years 1876-85.

LOCALITY.	Deaths during the 10 years 1876-85, from					Annual Death-rate per 100,000 living, from					
	Population in middle of the period.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Worthing Sub-District.	2890	494	58	48	70	45	1709	200	166	242	156
Littlehampton Sub-Dis.	3770	595	46	55	66	39	1339	122	145	175	103
Arundel Sub-District.	1360	238	13	19	29	35	1750	95	140	213	257
Whole District.....	8020	1237	117	122	165	119	1548	147	153	205	149
In 1876.....	7478	126	20	15	14	8	1684	267	200	187	107
In 1877.....	7593	131	11	14	15	17	1725	144	184	197	223
In 1878.....	7710	131	14	17	18	11	1699	181	220	233	142
In 1879.....	7832	125	1	7	19	12	1596	12	89	242	153
In 1880.....	7955	121	16	15	15	9	1521	201	188	188	113
In 1881.....	8080	128	20	12	15	15	1584	247	148	185	185
In 1882.....	8230	97	7	8	14	14	1178	85	97	170	170
In 1883.....	8330	130	9	9	13	14	1560	108	108	156	168
In 1884.....	8350	116	11	13	17	10	1389	131	155	203	119
In 1885.....	8530	132	8	12	25	9	1547	93	140	293	105

TABLE A.—Showing the Deaths during the year 1885, in the Rural Sanitary Districts of the County of Sussex, and showing also the Population of the same.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								12
	CENSUS 1881	Estimated to middle of 1885		5 At all Ages.	6 Under 1 year.	7 1 and under 5.	8 5 and under 15.	9 15 and under 25.	10 25 and under 60.	11 60 and upwds.		
1	2	3	4	5	6	7	8	9	10	11	12	
WORTHING SUB-DIS.	2910	3190	80	43	4	4	2	1	11	21	Under 5 upwds	
LITTLEHAMPTON SUB-DISTRICT.	3753	3390	108	48	11	5	5	3	8	16	Under 5 upwds	
ARUNDEL SUB-DIS.	1362	1950	46	36	4	2	—	2	11	17	Under 5 upwds	
EAST PRESTON WORKHOUSE.				19	—	—	—	1	4	14	Under 5 upwds	
											Under 5 upwds	
											Under 5 upwds	
											Under 5 upwds	
											Under 5 upwds	
											Under 5 upwds	
											Under 5 upwds	
TOTALS .....	8025	8530	234	146	19	11	7	7	34	68	Under 5 upwds	
Deaths occurring outside the district among persons belonging thereto.....				1				1			Under 5 upwds	
Deaths occurring within the District among persons not belonging thereto .....				15					4	11	Under 5 upwds	



TABLE B.—Showing the New Cases of Sickness coming to the knowledge of the District of EAST PRESTON, classified

NAMES OF LOCALITIES. 1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF EAST PRESTON							
	12	13	14	15	16	17	18	19
	Under 5	Smallpox	Measles	Scarlatina	Diphtheria	Croup (not "spasmodic")	Whooping Cough	Typhus
Worthing Sub-District	Under 5		10					
	5 upwds.		9					
Littlehampton Sub-Dis.	Under 5							
	5 upwds.				1			
Arundel Sub-District	Under 5							
	5 upwds.			2				
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
	Under 5							
	5 upwds.							
Totals	Under 5		10					
	5 upwds.		9	2	1			

Sources of information : In Workhouse and Workhouse Infirmary 10. Out-patients

Medical Officer of Health, during the year 1885, in the Rural Sanitary District, distinguishing those in Children under five years.

RURAL SANITARY DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS								
Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record.
21	22	23	24	25	26	27	28	
	1							
	4		3	2				
	1							
	2		1					
	2							
	6		4	2				

January, 28. Among Out-door Paupers, 497. In-patients of Worthing Workhouse Infirmary 311.



## RURAL SANITARY DISTRICT OF MIDHURST.

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POPULATION, 13,042 IN 1871 ; 13,933 IN 1881. AREA IN ACRES  
66,571. NO. OF HOUSES, 2,623 IN 1871 ; 2,797 IN 1881.

During the year 1885 the births of 406 children and the deaths of 233 persons were registered ; of the births, 215 were male, and 191 were female ; of the deaths, 112 were male, and 121 were female.

There were 10 deaths in Easebourne Workhouse, and these have been distributed among the several parishes whence each inmate came, viz., Tillington 1, Lodsworth 1, Midhurst 2, Easebourne 1, Fernhurst 2, Iping 2, Treyford 1 ; in all—10.

The deaths in each parish were thus distributed :—East Lavington 3, West Lavington 0, Tillington 9, Lodsworth 17, Selham 2, Heyshott 6, Graffham 5, Cocking 6, Midhurst 34, Woolbeding 5, Easebourne 16, South Ambersham 1, North Ambersham 4, Lurgashall 12, Fernhurst 19, Linchmere 5, Linch 1, Stedham 11, Iping 8, Trotton 8, Chithurst 2, Terwick 3, Rogate 16, Harting 29, Elsted 1, Treyford 1, Didling 1, Bepton 8, in all—233.

The births and deaths in the whole of the district during the last ten years have been as follows :—

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1876 ..	406	30·0	221	16·3
1877 ..	429	31·5	189	13·9
1878 ..	419	30·6	222	16·2
1879 ..	414	30·0	233	16·8
1880 ..	424	30·5	198	14·2
1881 ..	412	29·4	205	14·6
1882 ..	438	31·0	240	17·0
1883 ..	402	28·4	188	13·2
1884 ..	419	29·1	230	16·0
1885 ..	406	28·0	233	16·0

During the past ten years there have been 4169 births and 2159 deaths, so that the natural increase of population by excess of births over deaths is, therefore, 2010. The estimated increase of the population during the same period is 1050, so that considerable numbers must have migrated into other districts.

In each quarter the births and deaths were as follows:—

	Births.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
1st Quarter ..	66	55	121	36	41	77
2nd „ ..	47	48	95	28	35	63
3rd „ ..	53	44	97	29	25	54
4th „ ..	49	44	93	19	20	39
Total ..	215	191	406	112	121	233

The births appear to be most numerous in the first quarter of the year:—

	1879-84.	1885.	Total.	Mean.
1st Quarter ..	708	122	829	117
2nd „ ..	618	95	713	102
3rd „ ..	608	97	705	101
4th „ ..	575	93	668	96
Total ..	2509	406	2915	416

The following table shows the birth-rate in each sub-district during the last ten years:—

	1876-84.	1885.	Mean.
Midhurst Parish ..	25·9	24·7	25·8
Rest of Midhurst Sub-Dis. ..	28·7	28·3	28·7
Fernhurst „ ..	31·0	30·4	30·9
Harting „ ..	30·0	27·6	29·8
Total ..	30·0	28·0	29·8

The *birth-rate* in 1885 throughout England and Wales was equal to 32·5 per 1000 persons estimated to be living in the middle of the year; it was lower than in any previous year since 1848, and it was 2·2 below the mean annual rate in the ten years 1875-84.

The deaths at different groups of ages in each quarter are here given:—

	Under					60 and over.	Total.
	one year.	1—5.	5—15.	15—25.	25—60.		
1st Quarter ..	14	7	6	2	16	32	77
2nd „ ..	10	4	5	5	11	28	63
3rd „ ..	5	10	3	6	12	18	54
4th „ ..	3	2	1	4	8	21	39
Total ..	32	23	15	17	47	99	233

A comparative statement of the deaths in each quarter during

the last ten years shows that the deaths are most numerous in the first half of the year.

	1876-84.	1885.	Total.	Mean.
1st Quarter ..	556	77	633	63·3
2nd „ ..	507	63	570	57·0
3rd „ ..	428	54	482	48·2
4th „ ..	435	39	474	47·4
Total ..	1926	233	2159	215·9

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under 1 year.	Ratio to 1000 Births.
Midhurst Parish .....	42	2	47
Rest of Midhurst Sub-District ..	150	9	60
Fernhurst „ ..	76	4	52
Harting „ ..	138	17	120
Total .....	406	32	78

The rate of infant mortality in 1885 throughout England and Wales was equal to 138 per 1000, against 141, 137, and 147 in the three preceding years.

The following table shows the rate of infant mortality in different localities during the past ten years :—

	1876-83.	1884.	1885.	Mean.
Midhurst Parish	99	155	47	100
Rest of Midhurst Sub-Dis.	80	56	60	76
Fernhurst „	94	114	52	92
Harting „	85	81	120	88
Total .....	86	90	78	86

The 32 *infantile deaths* in 1885 included one from measles, one from whooping-cough, two from diarrhœa, one from erysipelas, two from tabes mesenterica, two from convulsions, eight from bronchitis, one from enteritis, five from debility, one from malformation, and one from pyæmia; seven were born prematurely.

The deaths from *zymotic*, or catching, disorders were 25 in number against 11, 24, 23, 12, 9, 19, 32, 16, and 18 in the nine preceding years. These twenty-five deaths included one from small-pox, two from measles, two from scarlatina, ten from diphtheria, one from whooping-cough, four from diarrhœa, two from rheumatic fever, and three from erysipelas.

The rate of mortality from these disorders was equal to 1·7 per 1000 persons living, against a rate of 0·8, 1·7, 1·6, 0·8, 0·6, 1·3, 2·2, 1·1, and 1·2 in the nine preceding years.

In the past ten years there have been altogether 189 deaths from this class of disorders, or a mean annual death-rate of 1·3 per 1000.

*Small-pox.*—Edmund J., 60 years of age, went on a visit to Plaistow in Essex, arriving there on Nov. 25th, 1884, at midday, and leaving there at 5 a.m. on the next day, Nov., 26th, to return to his home. There was no case of small-pox at the house at which he visited, nor did he remember seeing anyone with the disease, but at the time there was a very extensive outbreak of small-pox at Plaistow, and many hundreds of persons were attacked. Edmund J. lived in a very lonely cottage at Harting Combe, and at the time there was no other case of small-pox in the district, so that most likely the disease was contracted during his short visit into Essex.

On December 8th, 1884, at 10 p.m. the man first felt poorly with shivering and pain in the chest, and the rash appeared on December 11th. There were at this time living in the cottage besides the patient, a brother John, 50 years old; two sons, George, 23 years, and William, 21 years; a niece, Elizabeth, 24 years; and an infant, 7 months old; in all, six inmates.

The house had two tenements, so that the adult males were put in the next cottage which happened to be empty, while the niece nursed the the patient. William was revaccinated on the 13th, and the rest on the 14th. All the inmates had been successfully vaccinated in infancy, and they were all successfully vaccinated now. The man had a moderate attack and he made a good recovery; no other person in the house was attacked, and there was no spread of the disease in the neighbourhood. The period of incubation in this case must have been thirteen days.

On January 3rd, 1885, the cottage was well fumigated, the inmates going into the next empty tenement for a few days, while the infected place was cleansed and limewashed. No clothes were burnt in this case; various articles had been soaked in water and carbolic acid, and afterwards they had been well boiled.

*Small-pox* appeared also in a roomy old cottage in Bepton, in Febuary last. The house was in a very isolated situation, about half-a-mile from Midhurst station, and it was separated from the main road by a large old-fashioned garden. In this cottage there dwelt, Mr. and Mrs. C.; a son, William, 35 years old; and a nephew 14 years old. At this time another son, Jonathan C., 23 years of age, came home ill. He was an engine driver, and at the end of the year he had been working at the new docks at Tilbury; he left that place on January 21st, and went to Wales. He reached Cardiff, and went to see some friends there

on January 29th, there being at the time a case of small-pox in the house; he left Cardiff on February 2nd, for a place near Ainsbury in Gloucestershire, where he stayed that night, reaching Midhurst on the evening of February 3rd. That night he stayed at a relation's at Midhurst, and the next day, February 4th, he went to his parent's house. On the evening of February 9th, he had a bad headache, feeling worse the next day, and on the morning of February 13th, the rash of small-pox appeared. Mrs. C. had had nine children, one being still-born; four were vaccinated successfully in infancy, but two were very ill after it, and as a nephew was considered to have died from the effects of vaccination when two years old, the mother refused to have the two youngest children vaccinated; of the two who were not, therefore, vaccinated as infants, Jonathan was one, and he had never been vaccinated since that time. The other inmates of the house, four in number, had all been vaccinated successfully in infancy, or in early life. The father had had a mild attack of small-pox when between 13 and 15 years of age, there being at that time a case of small-pox at Steeple Ash, in the house in which he was living; he was not now re-vaccinated. The other three persons were re-vaccinated:—William C. on February 16th, the nephew on February 17th, and Mrs. C. on February 18th.

William C. and the nephew went away on February 14th to a relative's, and they kept in good health. The parents remained at home to nurse their son Jonathan, who rapidly became worse, and he died on February 23rd; he was buried at Bepton in the evening of the same day. Four persons assisted to bury him, and, precautions being taken, none of them caught the disease. The house was fumigated on the evening of February 23rd, and again more thoroughly on February 24th, when some bedding and clothes were burnt.

With regard to the result of re-vaccination of the above three adults, it may be here stated that no places rose on the arms of Mrs. C. or the nephew, but that the operation was successful in the case of the son William C. On February 23rd one spot appeared on Mrs. C.'s left fore-arm, which looked very much like a vaccination papule, but only one such mark could be seen. On March 1st Mrs. C. had several small-pox spots on her face, and afterwards all over her; after an attack of moderate severity she made a good recovery. Mr. C. escaped, but he was poorly for a day or two early in March. The house was again well disinfected and fumigated on March 18th, and some articles of clothing were destroyed. There was no further spread of the disease.

*Diphtheria* appeared in Linchmere Marsh in May and June at Brookham Farm, occupied by Stephen M., wife and seven children. The mother was first taken ill about the middle of April and then in succession all the children were attacked, but they all, varying in age from 6 months to 12 years, recovered.

The house was in a low-lying situation, well isolated, and containing plenty of rooms. The water was of good quality and there were no drains in the house.

About a mile distant, there were two cottages, one occupied by George M., wife and 6 children, and the other occupied by Widow L., a grandson, and 3 adults. In Widow L.'s house there was no illness, but in George M.'s house, three out of the six children were attacked; one, 2 years of age, died on May 31st, and one 7 years of age, died on June 19th. The house was very old and damp; in one bedroom the rain came in at times; the living room was cold and draughty, and the large open old-fashioned chimney caused a great waste of heat. The doors fitted badly, and the walls of the cottage were in much need of repair; the adjoining cottage was warmer and not so dilapidated. Some pigs and cows were kept near the house, and they were not attended to properly. After a changeable May with a persistent low temperature, June opened with a spell of fine weather, but from June 5th to June 8th there was a fall in the temperature with much rain and fog; after June 8th north-east winds prevailed for many days. Each house where there was illness was fumigated and lime-washed, and the last house was put into decent repair.

At a large old-fashioned, clean farm-house at Woolbeding, diphtheria caused two deaths in one family. In this house there dwelt Mr. P., wife and eleven children, varying from 21 years of age to 7 months. The mother was first poorly in April, and then in turn, John, 20 years, Henry, 16 years, Charlotte, 14 years, Laura, 10 years, Percy, 8 years, Allen, 7 years, and Andrew, 5 years, were all taken ill. Laura died on May 28th, and Percy died on May 29th. The water was good, and there were no drains in the house. The husband and four children escaped.

There were at this time several isolated cases. At the White Horse, Rogate, occupied by Mr. E., a son and a niece, the two latter had sore throats in May, but they recovered.

At Rogate school-house, occupied by Mr. H., wife and six children, there were six cases of diphtheria. William, 14 years old, was first attacked on April 16th, then, in succession, Alice, 12 years, Edith, 10 years, Ann, 6 years, Helena, 8 years, and the father on May 27th. Mrs. H. and Jane H., 16 years old, escaped; all those who were ill finally recovered. The school was closed from May 28th to June 22nd. The water was of good quality and the house was in a good sanitary condition. The school-house and the class-rooms were fumigated and lime-washed, and there was no spread of the disease.

There were all through the spring many cases of sore throat amongst children dwelling in the low-lying marshy grounds, and the above cases seem to have caught the disease from previous

cases, which, being mild in character, had received no medical attendance.

At South Harting, at a cottage occupied by Mr. E., wife and four children, Caroline E., 10 years old, had a sore throat in the middle of July, and her brother Frederick, 23 years old, was attacked on August 3rd, but they recovered, and there were no more cases. These persons were relations of a family of the same name at Rogate, where there had been two cases of diphtheria in May, and the families had met in the interval, so that the infection may have been brought here by the cousins, although the interval from May to July is considerable. In other cases, however, the duration of infectiousness has been longer than two months.

In August, the disease was brought into the district. At North Ambersham, in a clean, roomy farm-house there dwelt Mr. B., wife, 3 adult children, and a little girl. Harry B., 14 years of age, had been away harvesting near Chichester for a month; he came home poorly in the evening of August 15th with a bad cold and sore throat; he became worse and died on August 24th, when the house was fumigated and there was no spread of the disorder. At the place at which the deceased had been at work, there had been some cases of sore throats.

**MIDHURST DRAINAGE AND WATER-SUPPLY.**—These matters were much discussed during the year, but no real progress was made. A public meeting of the ratepayers was held on March 19th, when a resolution against both the schemes was carried by a large majority.

A full description of each scheme was given in my last report. The works of sewage were estimated at first to cost £1500, but a later estimate places the cost at £3000. The works for water-supply were estimated to cost £4269. It is much to be regretted that nothing has been done, as the condition of the South Pond and of the ditch in North Street is such that a great nuisance is caused in hot weather. Midhurst does not contain more than 1660 inhabitants, and some of them would derive no benefit from the drainage, although they would have to contribute to the cost, but so many visitors come to the town in the summer, attracted by the natural beauty of the scenery, that an efficient water-supply and drainage system could hardly fail to pay in the long run.

The following summary shows the condition of this district during three periods, so far as it can be told by means of death-rates.

The figures show a marked improvement in recent years over the rates which prevailed twenty and thirty years ago :—

Per 100,000 Persons living.	1851-60.	1861-70	1876-85.
All ages, both sexes.			
General Death-rate ..	1818	1761	1546
Zymotic „ ..	321	243	135
Phthisis „ ..	275 } 451	215 } 409	158 } 348
Lung Disease „ ..	176 }	194 }	190 }
15 to 55 years.			
Phthisis Death-rate ..	{ 455 mean 539 female	{ 360 mean 407 female	{ 273 mean 284 female
Lung Disease „	{ 56 mean 58 female	{ 57 mean 43 female	{ 45 mean 49 female
Under 1 year .. ..	?	10843	9170
Under 5 years .. ..	3884	3539	2891

*Inquests* were held in nine cases :—Male, 64 years, accidentally thrown from a railway engine ; female, 1 year, and 11 months, accidental fall down stairs ; male, 54 years, accidentally run over by a waggon ; male, 28 years, found dead in a railway carriage, natural causes ; female, 2½ years, drowned by accidentally falling into a well ; male, 38 years, accidental fall from a cart ; male, 5½ years, accidentally wounded by the discharge of a piece of piping used as a cannon on November 4th, 1884 ; female, 72 years, natural causes, disease of the lungs ; female, 7 months, natural causes, pyæmia.

There was one death registered as “not certified” in the Midhurst Sub-district out of a total of 104 deaths :—Female, 2 days, probably debility from birth ; none in the Fernhurst Sub-district out of a total of 41 deaths, and none in the Harting Sub-district out of a total of 88 deaths.

There were six deaths of illegitimate children in this district ; three in Midhurst Sub-district out of a total of 192 births, one in Fernhurst Sub-district out of a total of 76 births, and two in Harting Sub-district out of a total of 138 births :—Male, 1 day, inanition, certified ; female, 9 months, diarrhœa, certified ; female, 2½ years, drowned by accidentally falling into a well, inquest held ; male, 3 years, diphtheria, asphyxia, certified ; female, 4 days, premature birth, certified ; female, 7 months, natural causes, pyæmia, inquest held.

No proceedings were taken before the magistrates during the year.

A few cases of overcrowding have been dealt with during the year, and the nuisance has been abated.

There is no common lodging-house in the district.

No cases occurred in which it was necessary to condemn meat or any other article of food.

The bakehouses have been inspected at intervals and they have been kept in a cleanly state.

The slaughter-houses have been well kept.

The preceding were taken before the investigation during the year 1904.

A few cases of overwintering have been noted with living the year, and the evidence has been stated.

There is no certain evidence of hibernation in the district.

No case occurred in which it was necessary to administer food or any other article of food.

The fish-houses have been inspected at intervals and they have been put in a healthy state.

The slaughter-houses have been well kept.

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## MIDHURST RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 10 years 1876-85.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1876 .....	221	36	14	10	5	60	96
1877 .....	189	30	15	12	9	50	73
1878 .....	222	37	20	21	8	49	87
1879 .....	233	40	16	11	8	50	108
1880 .....	198	38	17	7	11	37	88
1881 .....	205	34	22	10	9	42	88
1882 .....	240	53	28	21	10	53	75
1883 .....	188	27	14	7	13	42	85
1884 .....	230	38	24	11	16	54	87
1885 .....	233	32	23	15	17	47	99
Total .....	2159	365	193	125	106	484	886
In 1000 Deaths...	1000	169	90	58	49	224	410

TABLE 2.—Showing the Deaths and Death-rate in each of the 10 years 1876-85, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric.	Other.							
1876	2	..	1	2	..	..	4	..	1	..	..	..	..	11	0·8
1877	..	2	2	3	9	1	1	1	1	3	1	..	..	24	1·7
1878	..	4	..	2	3	..	4	1	6	..	..	..	1	33	1·6
1879	..	1	..	6	1	..	1	..	1	2	..	..	..	12	0·8
1880	..	..	..	1	4	..	..	..	3	..	1	..	..	9	0·6
1881	..	..	3	4	1	..	6	..	1	1	2	..	1	19	1·3
1882	..	5	7	9	6	..	1	..	1	1	2	..	..	32	2·2
1883	5	..	3	2	2	..	1	..	3	..	..	..	..	16	1·1
1884	..	..	7	2	2	..	2	..	1	..	3	..	..	18	1·2
1885	1	2	2	10	1	..	..	..	4	2	3	..	..	25	1·7
Tl.	10	14	25	41	30	1	20	2	22	9	13	—	2	189	1·3

MIDHURST RURAL SANITARY DISTRICT.

TABLE 3.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 10 years, 1876-85.

PARISH.	Population in 1885.	Continued Fever.										Total.						
		Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Typhus.	Enteric or Typhoid	Other or doubtful.	Diarrhoea & Dysentery.	Rheumatic Fever.		Erysipelas.	Pyæmia.	Puerperal Fever.			
Midhurst Sub-District	East Lavington..	225	..	..	..	..	..	3	..	..	..	..	..	..	..	..	3	
	West Lavington.	150	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	Tillington .....	900	2	..	4	1	..	1	1	..	..	..	..	..	..	..	..	12
	Lodsworth .....	710	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	5
	Selham .....	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Heyshott.....	460	..	..	..	8	..	3	..	1	..	..	..	..	..	..	..	14
	Grafham .....	415	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6
	Cocking .....	600	..	2	1	..	1	1	..	..	..	..	..	..	..	..	..	5
	Midhurst.....	1700	..	..	..	..	..	3	..	2	..	..	..	..	..	..	..	14
	Woolbeding....	365	..	..	..	2	1	..	..	1	..	..	..	..	..	..	..	6
Fernhurst Sub-District	Easebourne ..	1300	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	6
	South Ambersh..	125	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
	North Ambersh..	770	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2
	Lurgashall .....	140	..	1	..	8	..	..	..	2	..	..	..	..	..	..	..	13
	Fernhurst .....	1340	..	1	1	8	..	3	1	1	..	..	..	..	..	..	..	19
	Linchmere .....	350	..	1	..	5	..	..	..	1	..	..	..	..	..	..	..	7
	Linch .....	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Stedham .....	545	1	2	1	..	..	..	..	2	..	..	..	..	..	..	..	6
	Iping .....	530	4	..	1	..	..	..	..	1	..	..	..	..	..	..	..	13
	Trotton .....	405	..	1	1	4	..	..	1	2	..	..	..	..	..	..	..	1
Harting Sub-District	Chithurst .....	340	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
	Terwick .....	190	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Rogate.....	990	..	2	1	..	..	3	1	..	..	..	..	..	..	..	..	11
	Harting .....	1280	..	3	11	3	..	1	..	..	..	..	..	..	..	..	..	23
	Elsted .....	210	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
	Treyford .....	150	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
	Didling .....	85	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	3
Bepton.....	275	1	..	2	..	1	..	..	..	..	..	..	..	..	..	..	4	
Whole District	14500	10	14	25	41	20	1	90	9	99	6	19	6	100	..	..	100	

## MIDHURST RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 10 years 1876-85.

LOCALITY.	Deaths during the 10 years 1876-85, from					Annual Death-rate per 100,000 living, from					
	Population in middle of the period.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Midhurst Parish .....	1612	283	14	34	39	26	1755	87	211	242	161
Rest of Midhurst Sub-dis	4926	738	59	86	77	77	1498	119	174	159	156
Fernhurst Sub-District..	2427	361	41	40	49	43	1487	167	164	201	177
Harting Sub-District ..	4950	777	75	61	102	85	1569	151	123	206	171
Whole District.....	13915	2159	189	221	267	231	1546	135	158	190	166
In 1876.....	13501	221	11	22	19	31	1636	81	162	140	229
In 1877.....	13595	189	24	27	11	18	1390	176	198	80	132
In 1878.....	13691	222	23	23	28	24	1621	168	168	204	175
In 1879.....	13789	233	12	26	31	32	1689	87	188	224	232
In 1880.....	13842	198	9	21	28	21	1430	64	151	201	151
In 1881.....	13987	205	19	14	33	20	1465	135	100	236	143
In 1882.....	14100	240	32	21	36	19	1702	227	149	255	134
In 1883.....	14210	188	16	20	25	23	1323	112	140	175	161
In 1884.....	14360	230	18	27	23	22	1601	125	188	160	153
In 1885.....	14500	233	25	20	33	21	1607	172	138	227	144

TABLE A.—Showing the Deaths during the year 1885, in the Rural San and showing also the Population of

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							12
	CENSUS 1881	Estimated to middle of 1885		5 At all Ages.	6 Under 1 year.	7 1 and under 5.	8 5 and under 15.	9 15 and under 25.	10 25 and under 60.	11 60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
MIDHURST PARISH.	1615	1700	42	32	2	1	2	2	9	16	Under 5 ..... 5 upwds
REST OF MIDHURST SUB-DISTRICT.	4926	5300	150	67	9	4	3	6	19	26	Under 5 ..... 5 upwds
FERNHURST SUB-DIS.	2435	2500	76	39	4	7	3	5	6	14	Under 5 ..... 5 upwds
HARTING SUB-DIS.	4957	5000	138	85	17	11	7	4	10	36	Under 5 ..... 5 upwds
EASEBOURNE WORKHOUSE.				10	—	—	—	—	3	7	Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
TOTALS .....	13933	14500	406	233	32	23	15	17	47	99	Under 5 ..... 5 upwds
Deaths occurring outside the district among persons belonging thereto.....											Under 5 ..... 5 upwds
Deaths occurring within the District among persons not belonging thereto .....											Under 5 ..... 5 upwds



TABLE B. showing the New Cases of Sickness coming to the knowledge of the District of MIDHURST, classified according to the Nature of the Sickness.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT							C 1
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not " spasmodic " 17	Whooping Cough 18	
Midhurst Parish	Under 5 5 upwds.							
Rest of Midhurst Sub-dis.	Under 5 5 upwds.			2				
Fernhurst Sub-District	Under 5 5 upwds.			1	3 4		1 2	
Harting Sub-District	Under 5 5 upwds.		12 15					
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
	Under 5 5 upwds.							
Totals	Under 5 5 upwds.		12 15	3	4		1 2	

Sources of information: In Workhouse and Workhouse

Medical Officer of Health, during the year 1885, in the Rural Sanitary District, distinguishing those in Children Under Five Years

RURAL SANITARY DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS								
Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record.
21	22	23	24	25	26	27	28	
1	1							
	1							
	1			3				
	2							
1	5			3				

mary, 36. Among Out-door Paupers, 393.

Office of Health during the year 1885, in the Local Sanitary Authorities and Districts.

Particulars of the Diseases and Disorders reported during the year 1885.

Name of the Sanitary Authority or District	Number of Cases	Males		Females		Total
		Number	Rate per 1,000	Number	Rate per 1,000	
1. ...	...	...	...	...	...	...
2. ...	...	...	...	...	...	...
3. ...	...	...	...	...	...	...
4. ...	...	...	...	...	...	...
5. ...	...	...	...	...	...	...
6. ...	...	...	...	...	...	...
7. ...	...	...	...	...	...	...
8. ...	...	...	...	...	...	...
9. ...	...	...	...	...	...	...
10. ...	...	...	...	...	...	...
11. ...	...	...	...	...	...	...
12. ...	...	...	...	...	...	...
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15. ...	...	...	...	...	...	...
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17. ...	...	...	...	...	...	...
18. ...	...	...	...	...	...	...
19. ...	...	...	...	...	...	...
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21. ...	...	...	...	...	...	...
22. ...	...	...	...	...	...	...
23. ...	...	...	...	...	...	...
24. ...	...	...	...	...	...	...
25. ...	...	...	...	...	...	...
26. ...	...	...	...	...	...	...
27. ...	...	...	...	...	...	...
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31. ...	...	...	...	...	...	...
32. ...	...	...	...	...	...	...
33. ...	...	...	...	...	...	...
34. ...	...	...	...	...	...	...
35. ...	...	...	...	...	...	...
36. ...	...	...	...	...	...	...
37. ...	...	...	...	...	...	...
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39. ...	...	...	...	...	...	...
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49. ...	...	...	...	...	...	...
50. ...	...	...	...	...	...	...

## RURAL SANITARY DISTRICT OF WESTBOURNE.

POPULATION, 7,221 IN 1871; 7,420 IN 1881. AREA IN ACRES  
32,040. NO. OF HOUSES, 1,495 IN 1871; 1,533 IN 1881.

During the year 1885 the births of 212 children and the deaths of 125 persons were registered; of the births, 109 were male, and 103 were female; of the deaths, 66 were male, and 59 were female.

There were 18 deaths in Westbourne Workhouse, and these have been distributed among the several parishes whence each inmate came, viz., Stoughton 2, Funtington 3, Bosham 6, Westbourne 7, in all—18.

In each parish the deaths were thus distributed:—West Dean 6, East Marden 0, North Marden 0, Up Marden 3, Stoughton 13, Compton 6, Racton 2, Funtington 17, Bosham 35, Chidham 4, West Thorney 1, Westbourne 38, in all—125.

The births and deaths in the whole of the district during the last six years have been as follows:—

Year.	Births,	Birth-rate.	Deaths.	Death-rate.
1880 ..	231	31·3	120	16·2
1881 ..	212	28·5	91	12·2
1882 ..	213	28·6	118	15·8
1883 ..	215	28·7	120	16·0
1884 ..	222	29·6	97	12·9
1885 ..	212	28·2	125	16·6

During the past six years there have been in this district 1,305 births and 671 deaths; the natural increase of population during this period by excess of births over deaths was, therefore, 634. The estimated increase of the population during the same period is 140, so that there must have been a considerable migration into other districts.

In each quarter the births and deaths were as follows:—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	29	31	60	14	16	30
2nd	..	23	22	45	15	13	28
3rd	..	31	20	51	13	14	27
4th	..	26	30	56	24	16	40
Total ..		109	103	212	66	59	125

On the average of five years, it would appear that the births are pretty uniformly distributed in each quarter :—

	1881-3.	1884.	1885.	Total.	Mean.
1st Quarter	176	38	60	274	54·8
2nd „	152	65	45	262	52·4
3rd „	164	59	51	274	54·8
4th „	148	60	56	264	52·8
Total	640	222	212	1074	214·8

The following table shows the birth-rate in different localities during the last five years :—

	1881.	1882.	1883.	1884.	1885.	Mean.
Funtington Parish ..	24·3	31·2	17·6	22·1	16·8	22·4
Bosham „ ..	30·5	35·2	34·9	30·0	37·0	33·5
Westbourne „ ..	29·4	28·0	30·3	31·0	31·3	30·0
Rest of District ..	28·6	24·8	28·9	31·2	25·4	27·8
Total ..	28·5	28·6	28·7	29·6	28·2	28·7

The *birth-rate* in 1885 throughout England and Wales was equal to 32·5 per 1000 persons estimated to be living in the middle of the year; it was lower than in any previous year since 1848, and it was 2·2 below the mean annual rate in the ten years 1875-84.

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

	Births.	Deaths under 1 year.	Ratio to 1000 Births.
Funtington Parish .....	19	1	52
Bosham „ .....	47	7	149
Westbourne „ .....	79	6	71
Rest of District .....	67	6	89
Total .....	212	20	94

The rate of infant mortality in 1885 throughout England and Wales was equal to 138 per 1000, against 141, 137, and 147 in the three preceding years.

The following table shows the rate of infant mortality in different localities during the past ten years :—

	1881.	1882.	1883.	1884.	1885.	Mean.
Funtington Parish	111	114	50	40	52	73·4
Bosham „	79	45	159	52	149	96·8
Westbourne „	55	173	93	26	71	83·6
Rest of District	40	92	79	97	89	84·4
Total.....	61	112	97	58	94	84·4

The deaths at different groups of ages in each quarter are here given :—

	Under one year.	1—5.	5—15.	15—25.	25—60.	60 and over.	Total.
1st Quarter ..	6	1	1	—	8	14	30
2nd „ ..	4	1	—	—	5	18	28
3rd „ ..	4	2	3	2	8	8	27
4th „ ..	6	3	2	3	5	21	40
	—	—	—	—	—	—	—
Total ..	20	7	6	5	26	61	125

A comparative statement of the deaths in each quarter during the last five years shows that the deaths are most numerous in the second and fourth quarters of the year :—

	1881-83.	1884.	1885.	Total.	Mean.
1st Quarter ..	76	24	30	130	26·0
2nd „ ..	100	24	28	152	30·4
3rd „ ..	63	28	27	118	23·6
4th „ ..	90	21	40	151	30·2
	—	—	—	—	—
Total ..	329	97	125	551	110·2

The 20 *Infantile deaths* in 1885 included one from diarrhœa, one from tuberculosis, three from convulsions, four from lung disease, five from debility, one from malformation, one from gastritis, two from natural causes, while two more were born prematurely.

The deaths from *zymotic*, or catching disorders, were 13 in number against 4, 18, 7 and 11 in the four preceding years. These thirteen deaths included ten from enteric fever, two from diarrhœa, and one from erysipelas.

The rate of mortality from these diseases was 1·7 per 1000 persons living, against a rate of 0·5, 2·4, 0·9 and 1·4 in the four preceding years.

In the past five years there have been altogether 53 deaths in this class of disorders, or a mean annual rate of 1·4 per 1000.

In the quarter ending September 30th 1885 there were eight deaths from *enteric fever* and two deaths from *diarrhœa* at various places in this district.

1.—George B., 21 years of age, a sawyer at Frensham, in Surrey, came to Forest Side, in the parish of Stoughton, about three or four months before he was taken ill. He was attacked early in July and he died on July 29th of pneumonia; enteric fever. There were no sanitary defects, the house was in an isolated situation on a chalk hill, and this death seems to have been due to pneumonia.

2.—Mary Ann P., 14 years old, fell ill on July 15th and she died at Westbourne of enteric fever on July 31st. In this case there was no diarrhœa nor any rash, but there was much pain in

the head and delirium. There was no history of any infection, there were no drains in the cottage, and no exposure to sewer-gas.

3.—Elizabeth C. P., 25 years old, married, came to Racton after visiting some friends at Havant where there had been some cases of fever. She seems to have caught the fever at the house at which she had been staying, and she died after her return home, on August 6th. Her two children who had been on the visit with her were ill also, but they recovered. The house was well isolated, in a healthy situation, good water and no sanitary defects.

4.—William R., 36 years old, a game-keeper at Lox Ash in the parish of Up Marden fell ill at the end of June with congestion of the lungs, and his death was registered on August 16th as due to "typhoid fever, pneumonic congestion, diarrhoea." This house was well-built, situated on the chalk in a healthy situation and in an isolated position. The well was 190 feet deep and the water was of good quality.

5.—Tom James S., 18 years old, a miller, worked at Emsworth all day and slept in a lonely cottage in Penny Lane in the Parish of Westbourne, occupied by his parents. He fell ill early in August and he died on August 25th. At this time there were a great many cases of enteric fever at Emsworth which is just outside this district and it seems most probable he caught the fever when working there. The weather was very hot and dry, and between Emsworth and Hermitage there is a large mill-pond full of most offensive mud, and especially so under a hot sun and at times of low tide. There were several mild cases of "fever" at Hermitage in the neighbourhood of this pond, and the condition of this pond is now under the consideration of the Sanitary Authority.

6.—Matthew D., 71 years, a cowman living at Bosham had a "fit" in the summer of 1884 which rendered him unfit for work; last June he went hay-making, but he had another attack, followed by paralysis. His death was registered on August 26th as due to "typhoid fever."

A more serious outbreak of illness occurred at Gosport in September due apparently to impure water. Gosport is a small hamlet in the parish of Bosham consisting of 17 houses, about half a mile south of, and opposite to, the village of Bosham, from which place the hamlet is separated by a creek. At high tides a fair sheet of water may be seen, but at low water there is only a level surface covered with mud. The cottages at Gosport are owned by small proprietors, and the houses seem to have been built years ago on some waste land near the edge of the creek. At No. 2, occupied by William P., wife and seven children, a child, Arthur P., 8 years old, had diarrhoea on August 21st; but he recovered, and there were no other cases in the house. At No. 3, occupied by William B., wife and two adult sons, Mrs.

B. was taken ill with diarrhœa on September 11th., but she eventually recovered. A married daughter, Mrs. K., came to nurse her mother in her illness, bringing with her, five young children. The two youngest of these children were taken ill with diarrhœa and one died, but the other three children remained in good health. Herbert K., 15 months old, was taken ill with diarrhœa and fever on September 19th and he died on September 22nd. Isabel K., 3 years old, was attacked on September 10th with fever and diarrhœa, but she recovered.

At No. 5, occupied by Walter W. and wife, the man was taken ill with diarrhœa on September 4th and Mrs. W. fell ill on September 15th but they both got well again.

At No. 6, occupied by George M., wife and six children, the parents and children all suffered more or less from diarrhœa early in September, and one child, Mark M., 6 years old, died of enteric fever on September 23rd.

At No. 7, occupied by George C. and his wife, Mrs. C. had been unwell with diarrhœa on August 3rd, but this was only a slight case.

At No. 11, occupied by Abraham A., wife and seven children, all the children suffered from diarrhœa and two of them died. They were all taken ill during the last six days of August. Frank A., 5 years old, was attacked on August 26th and he died on September 2nd.

Beatrice A., 6 months old, fell ill on August 30th and she also died from diarrhœa on September 1st. The elder children from six to fourteen years of age all recovered. At Nos. 1, 4, 8, 9, 10, 12 to 17 there was no illness but these houses were chiefly occupied by elderly people, or by those who had no children. In seven out of the seventeen houses there was more or less severe diarrhœa or enteric fever.

Reckoning in Mrs. K. and her five children who came to No. 3, when Mrs. B. was ill, it appears that there were eight adult men, seven adult women, and twenty-five children in the seven houses, in all—40 persons; the inmates at ordinary times would only number 34. Two out of eight men and four out of seven women were attacked, and all recovered; sixteen out of twenty-five children were attacked, and four died, two from diarrhœa and two from enteric fever. There were no drains inside any of the houses, and it was the usual custom to throw dirty water into the creek, the surface of the ground on which such liquids were thrown being washed twice a day by the tide. The houses were built in a line along the creek, and the situation being somewhat exposed, there was plenty of air in circulation. The closets were well away from the houses and separated from them by small gardens.

Some of the houses were clean and neat, others were dirty and somewhat overcrowded, but the illness was not confined to the

worst houses, but appeared also in one or two of the cleanest houses, and where there was no overcrowding. Complaints were made at various times of the muddy creek at low water, but this was no worse than is usual with such places, and had this been the cause, the village of Bosham ought to have suffered, as it was more exposed to its influence, since the prevailing wind blew towards the village and not toward the hamlet.

The milk supply did not seem at fault; many of those attacked never drank milk and none of them took it in any large quantity.

The water-supply was obtained from a pond close to the houses, this pond being fed by a land-spring from some higher lying meadows to the south. This pond was on the farm of a neighbouring landowner, who allowed the occupiers of the hamlet to take what water they wanted.

The owners of the houses forming the hamlet had never dug any wells, because being so near the creek, the salt water might have flowed in at high tides, and in any case, the water would most likely have been brackish. The pond being surrounded by rather higher ground was generally above high water, but in March, 1875, during a period of very high tide, the salt water entered the pond, which was afterwards pumped out, but not cleansed. In fact, the pond had not been cleaned out for 44 years, when those who used the water shared in defraying the expense.

Around the edge of the small pond, a number of trees had been planted, overhanging the water, and every autumn, the falling leaves formed at the bottom of the pond a dirty deposit.

When still, the water looked clear and bright, but it contained a large excess of organic matter; when stirred up, there was found to be a black deposit of decayed vegetable matter from one foot to nearly six feet in thickness. Water for drinking purposes was brought round from Bosham and the pond was ordered to be cleaned out. The water having been pumped out by an engine, it took several days to remove the mud. The trees were also cut down, so that the water should not again be polluted from that source, and now the spring seems to yield once more a good supply. On ceasing to drink the polluted water, the illness ceased also. There still remains the question, whether enteric fever could be caused by drinking water, which, though undoubtedly very impure, yet could not have contained any excreta from any previous case of enteric fever. The fatal cases died after an illness varying in length from three days to a week, while those who recovered, did so more rapidly than might have been expected after an ordinary attack of enteric fever. In no case was there any rash, or hæmorrhage from the bowels. It seems most probable that the water, loaded with organic matter, was so impure that those attacked suffered from enteritis, of which diarrhœa would be a prominent symptom, and that the younger

ones attacked, being weakly, died from exhaustion consequent on the diarrhoea. A question afterwards arose as to the defraying of the expense of cleaning out the pond. The owner of the pond was not liable, as he only allowed the people to use the water as a favour; the owners of the cottages were at first inclined to pay for it, but they could not clean out a pond which was not their property. In the end, the Sanitary Authority having undertaken the work, the expense, amounting to about £50, fell on the parish of Bosham.

#### BOSHAM WATER SUPPLY.

The matter was discussed at several meetings of the Sanitary Authority and Mr. Inkpen, of Chichester, was instructed to prepare plans for the purpose of providing Bosham with water in accordance with my report. The plans were prepared, but no further progress was made up to the end of the year, as much objection was felt to the scheme by most of the ratepayers of Bosham who are quite content with their present supply.

#### HERMITAGE WATER SUPPLY AND DRAINAGE.

The question was discussed at several meetings of the Sanitary Authority, and Mr. Inkpen was instructed to prepare plans for the drainage of Hermitage. This was done at an estimated cost of £240; the rateable value of the sixty houses included in the scheme is only £360. In the end, no main scheme of drainage was adopted, but the owners of the property were called upon to provide better accommodation. There is no doubt that an excellent supply of water could be obtained from the Portsea Water Works at an annual cost of about £26, but no interest was shown by the inhabitants in the matter, who are quite content with their present supply, even though they have to go some distance for it.

*Cholera precautions.*—In view of the advent of cholera the Authority considered the advisability of taking precautions against such an invasion. A few vessels come into Bosham Creek with oysters, but most of them go into Emsworth. No vessels from abroad ever come into this district. A few places were visited with a view of making a hospital, or finding an empty cottage to which a patient could be removed. Arrangements were also made for immediate information of any imported case. Several minor nuisances were removed, and the Authority agreed on doing away, as far as possible, with all old closets, and causing new ones to be made on a better principle, so that the contents might be frequently removed.

The following figures show a marked improvement in recent years over the rates which prevailed twenty and thirty years ago:—

Per 100,000 Persons living.	1851-60.	1861-70	1881-85.
All ages, both sexes.			
General Death-rate ..	1748	1857	1473
Zymotic ,, ..	267	373	141
Phthisis ,, ..	308	232	123
Lung Disease ,, ..	128	190	262
	} 436	} 422	} 385
15 to 55 years.			
Phthisis Death-rate ..	{ 498 mean 610 female	{ 406 mean 405 female	{ 228 mean 189 female
Lung Disease ,,	{ 54 mean 41 female	{ 44 mean 18 female	{ 61 mean 55 female
Under 1 year .. ..	?	10282	7913
Under 5 years .. ..	3726	3937	2509

*Inquests* were held in four cases:—Female, 14 days, gastritis; male, 2½ years, accidentally burnt; male, 75 years, suicide by drowning in the sea, whilst insane; male, 60 years, suffocated by falling accidentally into a ditch.

There were four deaths returned as “not certified” out of a total of 125 deaths; female, 3 weeks, probably natural debility; female, 3 weeks, natural causes; male infant, born prematurely; male, 9 months, probably natural causes.

There were four deaths of children born out of wedlock out of a total of 212 births:—female, 14 days, gastritis, improper feeding, inquest held; female, 14 years, enteric fever, certified; female, 6 years, acute bronchitis, certified; female, 19 months, congestion of the lungs, certified.

A few cases of overcrowding were abated during the year.

There are no registered common lodging-houses in this district.

The slaughter-houses and bake-houses have been inspected at intervals, and they have been kept in a cleanly state.

There was no case during the year in which it was found necessary to condemn meat or any other article of food which had been exposed for sale.

No proceedings were taken before the Bench during the year.

## WESTBOURNE RURAL SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 5 years 1881-85.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1881 .. .. .	91	13	5	3	2	19	49
1882 .....	118	24	12	8	4	24	46
1883 .....	120	21	12	7	7	26	47
1884 .....	97	13	6	9	5	24	40
1885 .....	125	20	7	6	5	26	61
Total .....	551	91	42	33	23	119	243
In 1000 Deaths...	1000	165	76	60	42	216	441

TABLE 2.—Showing the Deaths and Death-rate in each of the 5 years 1881-85, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric.	Other.							
1881 ...	...	...	...	1	...	...	...	...	...	2	...	1	4	0·5	
1882 .	1	1	8	4	...	1	...	1	...	1	1	...	18	2·4	
1883 ...	...	...	3	1	...	1	...	2	...	...	...	...	7	0·9	
1884 ...	...	...	6	4	...	...	...	1	...	...	...	...	11	1·4	
1885 ...	...	...	...	...	...	10	...	2	...	1	...	..	13	1·7	
Tl. —	1	1	18	9	—	12	—	6	—	4	1	1	53	1·4	

## WESTBOURNE RURAL SANITARY DISTRICT.

TABLE 3.—Showing the Total Deaths from Zymotic Diseases in each Parish in the 5 years, 1881-85.

PARISH.	Population in 1885.	Continued Fever.						Small Pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Typhus.	Enteric or Typhoid	Other or doubtful.	Diarrhoea & Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	TOTAL.
		Typhus.	Enteric or Typhoid	Other or doubtful.																	
West Dean .....	735	..	1	..	1	..	..	..	..	..	1	..	..	..	2	..	2	..	..	6	
East Marden.....	92	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
North Marden .....	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	
Up Marden .....	340	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	3	
Stoughton .....	685	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
Compton .....	290	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	
Racton .....	98	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	
Funtington .....	1130	..	..	..	10	..	..	..	..	..	1	..	3	..	..	..	..	..	..	12	
Bosham.....	1270	..	..	..	1	..	..	..	..	1	5	..	..	..	..	..	..	..	..	3	
Chidham .....	270	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	
West Thorney ..	130	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
Westbourne .....	2490	..	..	..	3	..	..	..	..	..	1	..	4	..	..	..	1	..	..	12	
Whole District..	7520	..	9	18	1	1	1	1	1	18	9	..	12	..	6	..	4	1	1	53	

## WESTBOURNE RURAL SANITARY DISTRICT.

TABLE 4.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 5 years 1881-85.

LOCALITY.	Deaths during the 5 years 1881-85, from					Annual Death-rate per 100,000 living, from					
	Population in middle of the period.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
Funtington Parish.....	1130	84	12	3	20	4	1486	212	53	354	71
Bosham Parish .....	1260	114	12	6	15	11	1808	190	95	238	162
Westbourne Parish .....	2475	182	12	21	33	16	1470	97	172	266	128
Rest of District .....	2625	171	17	16	30	13	1302	128	121	228	98
Whole District.....	7490	551	53	46	98	44	1473	141	123	262	117
In 1881.....	7420	91	4	7	15	11	1226	54	94	202	148
In 1882.....	7450	118	18	11	18	13	1583	241	147	241	174
In 1883.....	7490	120	7	10	20	9	1602	93	134	268	120
In 1884.....	7500	97	11	14	19	6	1293	146	186	253	80
In 1885.....	7520	125	13	4	26	5	1662	172	53	345	66

TABLE A.—Showing the Deaths during the year 1885, in the Rural San and showing also the Population of

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	CENSUS 1881	Estimated to middle of 1885		At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
FUNTINGTON PARISH.	1108	1130	19	14	1	2	1	—	2	8	Under 5 ..... 5 upwds
BOSHAM PARISH.	1255	1270	47	29	7	2	3	—	7	10	Under 5 ..... 5 upwds
WESTBOURNE PAR.	2450	2490	79	31	6	2	2	3	5	13	Under 5 ..... 5 upwds
REST OF DISTRICT.	2607	2630	67	33	6	1	—	2	9	15	Under 5 ..... 5 upwds
WESTBOURNE WORK- HOUSE.				18	—	—	—	—	3	15	Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
TOTALS .....	7420	7520	212	125	20	7	6	5	26	61	Under 5 ..... 5 upwds
Deaths occurring outside the district among persons belonging thereto .....											Under 5 ..... 5 upwds
Deaths occurring within the District among persons not belonging thereto .....											Under 5 ..... 5 upwds

of WESTBOURNE classified according to Diseases, Ages, and Localities, and the Births therein during the year.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

5	16	17	18	Cont Fevers			22	23	24	25	26	27	28	29	30	31	32	33
				19	20	21												
																	1	2
															4	1		6
					1		1								2			5
					2		1								3	1	1	12
																		8
					3										7	2	1	10
															3			4
					4									3	4	1		14
										1				1	3		1	12
					1		1								5		1	19
					9		1							4	21	5	3	54

TABLE B. showing the New Cases of Sickness coming to the knowledge of the District of WESTBOURNE, classified according to the Nature of the Sickness.

NAMES OF LOCALITIES. 1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF WESTBOURNE						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough 18
Bosham Parish	Under 5						3
	5 upwds.	3					1
Funtington Parish	Under 5						
	5 upwds.						
Westbourne Parish	Under 5						13
	5 upwds.						5
Rest of District	Under 5						1
	5 up wds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
Totals	Under 5						17
	5 upwds.	3					6

Sources of information: In Workhouse and Worked

Medical Officer of Health, during the year 1885, in the Rural Sanitary District, distinguishing those in Children Under Five Years

RURAL SANITARY DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS								
Other or Doubtful	Diarrhoea and Dysentery	Cholera	Rheumatic Fever	Erysipelas	Pyæmia	Puerperal Fever	Ague	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record.
21	22	23	24	25	26	27	28	
1	1							
	1							
	1			3				
	2							
1	5			3				

ary, 36. Among Out-door Paupers, 393.



## URBAN SANITARY DISTRICT OF WORTHING.

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POPULATION, 7,401 IN 1871; 10,976 IN 1881. AREA IN ACRES  
979. NO. OF HOUSES, 1,331 IN 1871; 1,959 IN 1881.

During the year 1885 the births of 327 children and the deaths of 178 persons were registered; of the births, 184 were male, and 143 were female; of the deaths, 94 were male, and 84 were female. There were 11 deaths in the East Preston Workhouse of persons belonging to this district, and there were also 17 deaths among visitors, all of which are included in the above number of 178. There were also 5 deaths in the Worthing Infirmary, of which 2 belong to this district and 3 to other parishes.

*Population.*—The population in 1884 was overestimated; the figures were obtained by counting the unoccupied houses in the rate-book and deducting them from the total of the various properties rated. The number of occupied houses was then returned to me at 2,455, but on examining the books, I found that this number included various properties, such as glasshouses, stables, &c., which have no inhabitants. The correct number of occupied houses in 1885 is 2371 which, allowing 5·5 persons to each house gives 13,040 as the estimated population. The figures for 1884 are, therefore, corrected in this report.

On this estimate the birth-rate in 1885 was 25·0 per 1000, and the death-rate was 13·6 per 1000 persons living.

The birth-rate is lower than in any preceding year, and this decline seems to be general through the whole of the combined district. The birth-rate in England and Wales in 1885 was equal to 32·5 per 1000 persons living; it was lower than in any previous year since 1848, and it was 2·2 below the mean annual rate in the ten years 1875-84. This marked decline seems due to a lowered marriage rate, and to the general depression of trade throughout the country. The low birth-rate in sea-side towns like Worthing, is also due to the age and sex distribution of the population, as has been often shown in previous reports.

The births and deaths in the whole of the district during the past ten years have been as follows:—

Year.	Births.	Birth-rate.	Deaths.		Death-rate.	
			Including Visitors.	Excluding Visitors.	Including Visitors.	Excluding Visitors.
1876	258	28·5	178	163	19·6	18·0
1877	250	26·7	160	146	17·1	15·6
1878	265	27·1	168	150	17·2	15·3
1879	287	28·1	153	146	15·0	14·3
1880	286	26·8	168	155	15·7	14·5
1881	324	29·2	170	150	15·3	13·5
1882	355	30·7	160	142	13·8	12·3
1883	313	25·7	164	151	13·4	12·4
1884	352	27·8	205	177	16·2	14·6
1885	327	25·0	178	161	13·6	12·3

In each quarter the births and deaths were as follows:—

		Births.			Deaths.		
		M.	F.	Total.	M.	F.	Total.
1st Quarter	..	47	43	90	22	27	49
2nd	..	36	35	71	24	18	42
3rd	..	49	27	76	21	22	43
4th	..	52	38	90	27	17	44
Total	..	184	143	327	94	84	178

A comparison of the births in each quarter during the past seven years shows that they are lowest in the third quarter of the year, but very nearly equal in the other quarters:—

	1879-83.	1884.	1885.	Total.	Mean.
1st Quarter	394	79	90	563	80
2nd	396	101	71	568	81
3rd	386	75	76	537	77
4th	389	97	90	576	82
Total	1565	352	327	2244	320

The deaths at different groups of ages in each quarter are here given:—

		Under					60 and	Total.
		one year.	1-5.	5-15.	15-25.	25-60.	over.	
1st Quarter	..	8	2	1	—	12	26	49
2nd	..	8	9	—	3	8	14	42
3rd	..	8	2	2	1	13	17	43
4th	..	5	7	4	4	11	13	44
Total	..	29	20	7	8	44	70	178

On the average of the past ten years, the deaths are most numerous in the first and last quarters of the year :—

		1876-83.	1884.	1885.	Total.	Mean.
1st Quarter	..	366	53	49	468	46·8
2nd „	..	318	41	42	401	40·1
3rd „	..	309	51	43	403	40·3
4th „	..	328	60	44	432	43·2
Total	..	1321	205	178	1704	170·4

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

Year.		Births.	Deaths under 1 year.	Ratio to 1000 Births.
1876	..	258	30	116
1877	..	250	33	126
1878	..	265	31	117
1879	..	287	21	73
1880	..	286	39	136
1881	..	324	28	86
1882	..	355	34	95
1883	..	313	33	105
1884	..	352	43	122
1885	..	327	29	88
		Mean 301·7	32·1	106

The 29 *infantile deaths* included one from measles, one from diarrhœa, one from abscess, one from meningitis, ten from convulsions, four from lung diseases, one from enteritis, one from tonsillitis, and two from atrophy ; three died from natural causes, on each of which an inquest was held, and four infants were born prematurely.

The rate of infant mortality in this district is declining ; in 1885 throughout England and Wales, the rate was equal to 138 per 1000, against 141, 137 and 147 in the three preceding years.

The deaths from *zymotic*, or catching disorders, were 15 in number, against 29, 19, 21, 9, 29, 10, 18, 15 and 16 in the nine preceding years. The 15 deaths in 1885 included five from measles, five from diphtheria, three from enteric fever and two from diarrhœa. The rate of mortality from these diseases was 1·1 per 1000 persons living, against a rate of 3·2, 2·0, 2·1, 0·8, 2·7, 0·9, 1·5, 1·2 and 1·2 in the nine preceding years. In the past ten years there have been altogether 181 deaths in this class of diseases, or a mean annual rate of 1·7 per 1000.

*Measles* was very prevalent in this district during the autumn and it caused one death in October, two in November, and two in

December. Some of the schools were closed in consequence of the non-attendance of the children. I can give no estimate of the number of children attacked, because no such record can be kept, but the disorder has not been so prevalent for many years. Nor was it confined to this district only, but it was general throughout all West Sussex. By far the greater number of the cases were very mild, and the mortality was but small. In most cases where death ensued, some lung disease was the proximate cause of death.

*Whooping-cough* caused no deaths, but it began to appear here at the end of July and several cases occurred from time to time during the autumn.

*Diphtheria* caused five deaths, although the disease did not prevail in an epidemic form. Edward B.,  $3\frac{1}{2}$  years of age, was taken ill on April 29th and he died on May 6th. An infant brother died on May 4th from pneumonia after an illness of about six hours. In this cottage there dwelt the parents and three children, but there were no other cases of illness in the house. The rooms were small but clean, and there was plenty of through ventilation. There were no drains nor closets inside the house and the water supply was good. During the first week in May the weather was very changeable and there was a great deal of illness amongst young children from croup and pneumonia.

In another clean, roomy dry house there dwelt Mr and Mrs. S. and two young children. Ellen S., 5 years old, left her home on a visit on April 11th, and she was not taken ill. Frederick S., 3 years of age, was taken ill on April 30th and he died with croupy breathing on May 6th. The boy did not go to school, nor had he been out for some time, nor was there any spread of the disease. The house was in a good sanitary condition. At another cottage there lived Thos. S., wife and four children. Frank S., 4 years old, was taken ill on April 27th, and he died on May 3rd with bronchitis and croupy breathing. The three elder children, aged respectively 6 years, 8 years and ten years, were not attacked. The house was dry and warm, and there was no closet inside; the water supply was laid on directly from the main, and the only defect was that the sink-pipe was, although trapped, in direct connection with the drain; this was afterwards altered. There was an out-door hopper-closet which was well kept. These three houses were at some distance apart from each other and there had been no communication with the families; some of the children attended different schools and some were too young to attend school at all. The milk supply came from different dairies and there seemed nothing in common to all these cases. It will be noticed that only very young children were attacked and that the disease did not spread in any house to any other inmate. I think that the cold, changeable weather at the

end of April was the cause of the illness ; in each case the house was afterwards fumigated and cleansed. Towards the end of May another infant, 14 months old, died after one day's illness. In this cottage there dwelt Edwin N., wife and six children, yet no other inmate was attacked. There was no closet inside the house and the water was laid on directly from the main, The sink-pipe in the wash-house was not cut off from direct communication with the drain, but this was afterwards remedied, and the house was fumigated and cleansed. The fifth case occurred in October. Caroline H., 6 years of age, was living with her grandmother at Ham Arch, in an open uncrowded part. The house was extremely neat and clean and there were no other inmates except this child and the grandparents. The child fell ill on October 24th and she died on October 29th, there being no spread of the disease. There were no drains or closets inside the house and the place was in a good sanitary condition.

*Enteric Fever* caused three deaths. Walter H., 11 years of age, died on July 6th after about three weeks illness; he had been hard at work at school, and he was a bright lad, of a tuberculous type. He was preparing for an examination, and this seemed to give him much anxiety. There were no sanitary defects in the house, which was well-drained and ventilated, and there were no drains within the dwelling. The parents and other children were not attacked, nor was there any spread of the disease. The second case died in the Worthing Infirmary on December 31st, William F., 22 years of age, a journeyman painter in very delicate health, was admitted about three weeks before his death. There were three deaths in this family within ten months. His mother died of consumption on March 10th, and his brother, 18 years of age, also died of consumption on October 27th, 1885.

#### WATER SUPPLY.

In the early part of 1885 it was determined to sink another well to the north-east of the old wells, and at a distance of about 80 yards. The well was sunk to the depth of 75 feet, and a large fissure in the chalk having been reached, a most abundant supply of water was met with, while at the same time the yield in the old wells did not seem to be affected. One of the old wells is 70 feet deep with a bore of 295 feet, the other is 100 feet deep with a bore of 300 to 400 feet down into the grey chalk; in the year 1880 a tunnel 75 feet from the surface was driven between the two wells and the yield from the two wells amounted to 12,000 gallons per hour. With the aid of the new well, the yield is now 20,000 gallons per hour, and instead of the pumps being at work day and night, a period of 14 or 15 hours will now suffice. The waste of water has to a great extent been stopped, the quantity per head being reduced from 37 to 22

gallons, and this is due to better supervision of taps and fittings and to the adoption of water-waste preventers to closets. The water is of excellent quality, and in quantity there seems to be enough to supply the town for many years to come. The new well was connected by means of a gallery with the old wells, but a partition in this new gallery enables the water from the new well to be cut off in case any repairs are needed.

#### DRAINAGE AND SEWAGE.

No large works have been carried out during the year, and the present system seems to answer well. The sewers are well flushed and ventilated, and as all new houses are in direct connection with the sewer without the intervention of a trap, each house ventilator aids in making a current of fresh air through the sewers. On the main outlet sewer, there are fourteen surface ventilators, varying from 12 to 18 inches in diameter. On the larger sewers, there are 76 ventilators on the surface of the street, one 18 inch, one 12 inch, and one 6 inch stack-pipes in connection with and discharging into the chimney stack at the water works, while scattered through the town there are twenty-six 6 inch ventilating pipes up the sides or gables of tall buildings.

In all new houses a proper system of house drainage is carried out, a flush-out closet being generally put up, while all sink, bath and waste pipes are disconnected and discharge in the open air.

In many of the old houses, closets have been converted, D. traps have been removed, and the drainage has been carried out more in accordance with modern views.

PROCEEDINGS BEFORE THE MAGISTRATES.—The owner of a house in Chapel Street was summoned for having the place in a defective sanitary condition. The house drain was blocked, the soil-pipe leaked, and there was no proper ventilation. An order was made to carry out the necessary repairs within ten days, and the owner had to pay costs, and he at once carried out a proper system of house drainage.

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In the course of the year a public mortuary was erected at a cost of nearly £100 on ground near the Water-works.

In the Worthing Infirmary there were 84 in-patients during the year, against 27, 34, 30, 42, 42, 49, 55, 52, 63 and 64 in the ten preceding years. Of the 84 in-patients, 64 belonged to this district, 4 to Steyning, 6 to Thakeham and ten to East Preston districts.

There were also 1,628 out-patients, against 1,021, 1,073, 1,002, 1,074, 1,065, 1,080, 1,075, 1,221, 1,277 and 1,355 in the ten preceding years. Of the 1,628 out-patients, 1,195 belonged to this

district, 82 to Steyning, 39 to Thakeham, 311 to East Preston and 1 to Littlehampton districts.

There were 439 new cases of sickness among paupers, against 243, 347, 194, 199, 141, 251, 214, 188 and 367 in the nine preceding years.

The following table shows the changes that have taken place in the death-rate from all causes and from various causes during a long period of time. With a population which has doubled itself in the last twenty years, the general death-rate has not altered much, but the zymotic and phthisis death-rates are very much lower. Table 3, shows very clearly the marked decline in the various rates during 1882-85 over the period 1876-81. In this table care is taken to distinguish in each year the rates that include and exclude the deaths of visitors.

Per 100,000 persons living.	1843—52	1853—56	1857—63	1876—85	
	BEFORE	DURING	AFTER	including	excluding
	execution of sanitary works			visitors	visitors
Gen. Death-rate	1550	1630	1530	1572	1424
Zymotic ,,	292	280	328	170	158
Phthisis ,,	305	282	195	164	143
Lung Dis ,,	147	185	185	189	172

*Inquests* were held in seven cases :—Female, 10 weeks, natural causes, inflammation of the lungs; female, newly-born, suffocation caused during birth by protracted labour; male, 64 years, suicide by hanging; male, newly-born, natural causes, convulsions; male, 97 years, injuries caused by a fall; male, 58 years, found drowned in a tank; male, 45 years, found drowned in the sea.

There were three deaths returned as “not certified” out of a total of 178 deaths :—Female, 8 months, convulsions; male, 59 years, apnœa; female, 89 years, old age.

There were three deaths of children born out of wedlock :—Male, 5 weeks, congestion of lungs, certified; female, 1 year, convulsions, certified; male, newly-born, convulsions; in the last case, an inquest was held.

A few cases of overcrowding were abated during the year.

The two common lodging-houses have been frequently inspected, and they are very well kept.

The slaughter houses and bakehouses have been frequently inspected, and they have been kept clean and in good order.

The dairies have been also inspected and they are kept in a very clean state.

RAINFALL.—The rainfall during each month of the past year was as follows:—

Month.	Total depth in inches.	No. of rainy days.	Rainfall in 1884.
January	1·69	11	3·27
February	3·67	20	1·43
March	2·40	10	1·83
April	0·96	9	1·37
May	3·33	15	0·46
June	1·40	8	1·64
July	0·78	5	2·40
August	0·73	9	1·41
September	5·59	20	3·57
October	4·02	18	1·80
November	3·36	13	1·25
December	1·35	12	4·32
	29·28	150	24·75

The rain-gauge is 1ft. above the ground, and 24·6ft. above sea level; diameter of funnel, 5 inches.



WORTHING URBAN SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 10 years 1876-85.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1876 .....	178	30	25	15	5	47	56
1877 . . . . .	160	33	15	8	6	42	56
1878 .....	168	31	13	2	8	49	65
1879 .. . . .	153	21	13	2	8	39	70
1880 .....	168	39	18	12	9	41	49
1881 .. . . .	170	28	15	8	7	49	63
1882 .....	160	34	14	3	7	41	61
1883 .....	164	33	22	4	8	51	46
1884 .....	205	43	13	12	6	61	70
1885 .....	178	29	20	7	8	44	70
<b>Total .....</b>	<b>1704</b>	<b>321</b>	<b>168</b>	<b>73</b>	<b>72</b>	<b>464</b>	<b>606</b>
<b>In 1000 Deaths...</b>	<b>1000</b>	<b>189</b>	<b>98</b>	<b>43</b>	<b>42</b>	<b>272</b>	<b>356</b>

TABLE 2.—Showing the Deaths and Death-rate in each of the 10 years 1876-85, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever	TOTAL.	Rate per 1000 persons living.
						Typhus.	Enteric.	Other.							
1876	4	16	2	1					5				1	29	3.2
1877	..	..	2	2	1	..	..	..	5	2	..	..	2	19	2.0
1878	..	..	..	..	15	..	..	..	5	..	..	..	..	21	2.1
1879	5	..	..	1	2	..	..	..	..	..	1	..	..	9	0.8
1880	4	1	2	2	6	..	..	..	5	..	..	..	..	29	2.7
1881	..	..	4	1	..	..	..	..	2	2	..	..	..	10	0.9
1882	..	..	1	1	7	..	..	..	7	2	..	..	1	18	1.5
1883	8	..	..	..	1	..	..	..	1	3	..	..	1	15	1.2
1884	..	2	1	..	..	..	..	..	9	..	..	..	..	16	1.2
1885	5	..	5	..	..	..	..	..	2	..	..	..	..	15	1.1
<b>Tl.</b>	<b>—</b>	<b>26</b>	<b>26</b>	<b>15</b>	<b>33</b>	<b>—</b>	<b>16</b>	<b>1</b>	<b>49</b>	<b>7</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>181</b>	<b>1.7</b>

WORTHING URBAN SANITARY DISTRICT.

TABLE 4.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 10 years 1876-85.

YEAR.	Deaths during the 10 years 1876-85, from						Annual Death-rate per 100,000 living, from					
	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	Population in middle of the period.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	
In 1876.....	178	29	21	15	9	9050	1966	320	232	165	99	
In 1877.....	160	19	15	10	24	9350	1711	203	160	106	256	
In 1878.....	168	21	19	26	13	9750	1723	215	194	266	133	
In 1879.....	153	9	18	21	18	10200	1500	88	176	205	176	
In 1880.....	168	29	17	21	13	10680	1573	271	159	196	121	
In 1881.....	170	10	11	23	20	11100	1531	90	99	207	180	
In 1882.....	160	18	17	21	19	11550	1385	155	147	181	164	
In 1883.....	164	15	23	19	15	12180	1346	123	188	156	123	
In 1884.....	205	16	22	31	26	12650	1620	126	173	245	200	
In 1885.....	178	15	14	21	18	13040	1365	115	107	161	138	
Total.....	1704	181	177	208	175		1572	170	164	189	159	
In 1876.....	169	27	16	12	9		1801	298	176	132	98	
In 1877.....	146	17	13	10	20		1561	181	139	107	213	
In 1878.....	150	20	15	23	13		1538	205	153	235	133	
In 1879.....	146	8	18	20	18		1431	78	176	196	176	
In 1880.....	155	27	15	20	11		1451	252	140	186	103	
In 1881.....	150	10	9	22	20		1351	90	81	198	180	
In 1882.....	142	18	15	16	16		1229	155	130	138	138	
In 1883.....	151	14	21	18	12		1239	115	172	147	97	
In 1884.....	177	13	19	29	21		1400	102	150	229	166	
In 1885.....	161	14	14	20	17		1234	107	107	153	130	
Total.....	1541	168	155	190	157		1424	158	143	172	144	

Including Visitors.

Excluding Visitors.

TABLE A.—Showing the Deaths during the year 1885, in the Urban Sanitary Districts, and showing also the Population of the same.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								12
	CENSUS 1881	Estimated to middle of 1885		5	6	7	8	9	10	11		
1	2	3	4	At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.		
WORTHING URBAN SANITARY DISTRICT.	10976	13040	327	165	29	20	7	7	41	61	Under 5 5 upwds	
WORTHING INFIR.				5	—	—	—	2	2	1	Under 5 5 upwds	
											Under 5 5 upwds	
											Under 5 5 upwds	
											Under 5 5 upwds	
											Under 5 5 upwds	
											Under 5 5 upwds	
											Under 5 5 upwds	
											Under 5 5 upwds	
											Under 5 5 upwds	
TOTALS .....	10976	13040	327	170	29	20	7	9	43	62	Under 5 5 upwds	
Deaths occurring outside the district among persons belonging thereto .....				11					3	8	Under 5 5 upwds	
Deaths occurring within the District among persons not belonging thereto .....				20	2			1	9	8	Under 5 5 upwds	



TABLE B. showing the New Cases of Sickness coming to the knowledge of the District of WORTHING, classified according to the Nature of the Sickness.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELOW THE AGE OF FIVE YEARS.						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough 18
Worthing Urban Sanitary Dis.	Under 5		32				
	5 upwds.		26	2			
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
Totals	Under 5		32				
	5 upwds.		26	2			

Sources of information:— In Workhouse and Workhouse Infirmary, 1  
As Out-patient





## URBAN SANITARY DISTRICT OF LITTLEHAMPTON

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POPULATION, 3,272 IN 1871; 3,926 IN 1881. AREA IN ACRES  
925. NO. OF HOUSES, 625 IN 1871; 743 IN 1881.

During the year 1885 the births of 81 children and the deaths of 47 persons were registered; of the births, 38 were male and 43 were female; of the deaths, 23 were male and 24 were female.

One visitor died during the year and there were three deaths in the East Preston Workhouse of persons belonging to this district; these four deaths are included in the above number of 47.

Estimating the population at 4,100 in the middle of the year the birth-rate was equal to 19.7 per 1000, and the death-rate was equal to 11.4 per 1,000 persons living; excluding visitors, the death-rate was equal to 11.2 per 1,000.

The births and deaths for the past ten years have been as follows:—

Year.	Births.	Birth-rate.	Deaths.		Death-rate.	
			Including Visitors.	Excluding Visitors.	Including Visitors.	Excluding Visitors.
1876	104	29.2	52	49	14.6	13.7
1877	113	31.1	48	46	13.2	12.6
1878	114	30.9	60	58	16.2	15.7
1879	117	31.2	50	50	13.3	13.3
1880	109	28.6	51	45	13.3	11.8
1881	105	26.8	58	55	14.7	14.0
1882	94	23.6	74	66	18.5	16.5
1883	111	27.7	55	54	13.7	13.5
1884	98	24.5	44	41	11.0	10.2
1885	81	19.7	47	46	11.4	11.2

In each quarter the births and deaths were as follows:—

	Births.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
1st Quarter ..	10	13	23	5	3	8
2nd „ ..	7	12	19	2	3	5
3rd „ ..	8	7	15	10	12	22
4th „ ..	13	11	24	6	6	12
Total ..	38	43	81	23	24	47

A comparison of the births in each quarter during the past seven years shows that the births are most numerous in the first quarter, and least numerous in the last quarter of the year:—

	1879-84.	1885.	Total.	Mean.
1st Quarter ..	180	23	203	29
2nd „ ..	157	19	176	25
3rd „ ..	161	15	176	25
4th „ ..	136	24	160	23
Total ..	634	81	715	102

The *birth-rate* in 1885 throughout England and Wales was equal to 32·5 per 1000 persons estimated to be living in the middle of the year; it was lower than in any previous year since 1848, and it was 2·2 below the mean annual rate in the ten years 1875-84.

The deaths at different groups of ages in each quarter are here given:—

	Under					60 and over.	Total.
	one year.	1-5.	5-15.	15-25.	25-60.		
1st Quarter ..	1	3	—	—	2	2	8
2nd „ ..	—	—	1	—	2	2	5
3rd „ ..	2	3	—	2	9	6	22
4th „ ..	1	1	—	—	3	7	12
Total ..	4	7	1	2	16	17	47

Taking the average of the past ten years, it appears that the deaths are most numerous in the first and third quarters of the year:—

	1876-84.	1885.	Total.	Mean.
1st Quarter ..	158	8	166	16·6
2nd „ ..	107	5	112	11·2
3rd „ ..	119	22	141	14·1
4th „ ..	108	12	120	12·0
Total ..	492	47	539	53·9

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year:—

Year.	Births.	Deaths under 1 year.	Ratio to 1000 Births.
1876 ..	104	10	96
1877 ..	113	9	79
1878 ..	114	15	131
1879 ..	117	6	51
1880 ..	109	12	110
1881 ..	105	11	104
1882 ..	94	16	170
1883 ..	111	11	99
1884 ..	98	3	30
1885 ..	81	4	49
	Mean 104·6	9·7	90

The rate of infant mortality in 1885 throughout England and Wales was equal to 138 per 1000, against 141, 137, and 147 in the three preceding years.

The four *infantile deaths* included one from diarrhoea and two from convulsions; one was born prematurely.

The deaths from *zymotic*, or catching, disorders were seven in number, against 8, 3, 5, 2, 3, 1, 6, 2 and 3 in the nine preceding years.

These seven deaths included one from measles, one from diphtheria, one from diarrhoea, one from erysipelas and three from "other forms" of fever. The rate of mortality from these disorders was 1·7 per 1000 persons living, against a rate of 2·2, 0·8, 1·3, 0·5, 0·7, 0·2, 1·5, 0·5 and 0·7 in the nine preceding years.

There have been altogether in the past ten years 40 deaths in this class of diseases, or a mean annual rate of 1·0 per 1000.

In this period there were nine deaths from diarrhoea, seven from scarlatina, six from measles, four from diphtheria, five from whooping-cough, one from enteric fever, three from "fever," three from erysipelas, one from rheumatic fever and one from puerperal fever. There were no deaths from small-pox, typhus fever, cholera or pyæmia.

*Small-pox* was imported here on one occasion. Frederick B., 18 years of age, was lodging in Loder Street, near a small-pox hospital at Peckham Rye; a nurse from this hospital used at times to visit her brother who lodged in the same house. There was no other evidence of exposure to the disease, nor did the youth remember coming in contact with any one who had small-pox. He had been successfully vaccinated when an infant, and

two places rose out of three; he had never been revaccinated. He felt ill on April 3rd. and he at once came home to his parents house, reaching Littlehampton in the evening of April 4th. The same evening, the rash appeared, and, after an attack of moderate severity, Frederick B. made a good recovery. At the time of his return, Mr. and Mrs. B. and seven children were at home. Some of the children were sent away on April 4th and the rest on April 5th; four were not revaccinated, and three were successfully revaccinated. Mr. B. also left and lodged in a house close to, while Mrs. B. and a nurse attended to the patient. The parents had small-pox 20 years ago. There was now no spread of the disease, and on April 27th the house was well fumigated and then cleansed and limewashed. A few articles of clothing were burnt.

**CHOLERA PRECAUTIONS.**—Much time was spent in considering what steps should be taken in the event of cholera being brought into the Port. At one time there was a Port Sanitary Authority for Littlehampton, but this arrangement has fallen through, and now the duties of the Port Sanitary Authority devolve on the Littlehampton Urban Sanitary Authority and the East Preston Rural Sanitary Authority. It was arranged by the Littlehampton Urban Sanitary Authority that if a ship arrived infected with cholera, the officer of Customs should detain such ship, and order the master forthwith to moor it at the Runcorn piles, a spot just outside their district, and within the area of the East Preston Rural Sanitary Authority. In the next place, a suitable spot was sought for to which any infected person might be removed. No such spot was decided upon, nor could any empty house be obtained in a suitable locality which would serve as a temporary hospital.

No cases of cholera arrived in the port. The traffic at this port is less than it used to be because the London and Brighton Railway Company have transferred all their boats to Newhaven about three years since, so that the traffic in early potatoes and fruit from the channel Isles is now almost stopped. Very few foreign vessels come into this port, about 4 or 5 a year. In 1884 224 cargo boats came with coals and grain, these being coasting vessels from Sunderland, Seaham, Newcastle, and Cardiff. Nothing came from foreign ports. These figures refer to Littlehampton itself, but the term "port of Littlehampton" includes a much larger area extending westwards as far as Itchenor, Bosham and Emsworth.

**WATER-SUPPLY.**—Towards the end of the year there were about 300 houses to which the public water-supply has been laid on, and the number is gradually increasing every month.

The cost, the description of the water-works and the character of the water-supply from the chalk springs have been given in detail in former reports. The water all through the year

appeared to be of excellent quality and to be abundant in quantity. Several cottages with polluted wells have now had a proper supply laid on, and a supply has also been furnished to many cottages which had no previous supply at all.

**DRAINAGE AND SEWAGE.**—Much attention has been given to the flushing of the main and tributary sewers by Mr. Howard, the Town Surveyor. There are now two good sea water inlets formed from the harbour in Pier Road and River Road; flushing valves, disc and flap, are fixed in the manholes at points in the sewers here, and a good head of water is obtained, especially at spring tides. Seven flushing valves have been placed in the sewers, and the water for flushing is obtained from the hydrants on the water-mains. At the top of North Street, leading into the Western Road main, a 750 gallon flushing chamber has been put up. The due ventilation of the sewers has been provided by still further increasing the number of large ventilating shafts in direct connection with the sewers. Much progress has also been made in doing away with old closets and cesspits and in making proper connection with the main drains. In most cases, the closets are on the flush-out or hopper system and placed in a back yard in the open air; each closet being furnished with a small flushing tank, so that there is no direct connection between the water-supply and the drainage system.

The following comparative statement shows the changes that have taken place during three periods:—from 1875-78, before the works of water-supply and sewerage were carried out; from 1879-83, when the works were being carried out; and in 1883-85, since the completion of the works.

Per 100,000 Persons living.	1875-78.	1879-82	1883-85.
All ages, both sexes.			
General Death-rate ..	1488	1500	1207
Zymotic ..	153	76	98
Phthisis ..	202	168	116
Lung Disease ..	237	209	149
	} 439	} 377	} 265
15 to 55 years.			
Phthisis Death-rate ..	{ 258 mean 248 female	{ 290 mean 230 female	{ 211 mean 149 female
Lung Disease ..	{ 68 mean 25 female	{ 63 mean 23 female	{ 114 mean 89 female
Under 1 year ..	10550	11718	6000
Under 5 years ..	3324	3630	1782

*Inquests* were held in four cases:—male, 35 years, accidentally drowned in the sea ; male, 63 years, injured by an accidental fall ; male, 62 years, suicide by hanging ; male, 3 years, found drowned in the river Arun.

There were no deaths returned as “not certified” during the year.

There was one death of an illegitimate child:—Female, 1 year, dentition, paralysis, certified.

A few cases of overcrowding were abated during the year.

There were no cases during the year in which it was necessary to condemn meat or any other article of food.

The slaughter-houses and bake-houses have been inspected at intervals, and they have been kept in a cleanly state.

The two registered common lodging-houses have been considerably improved ; they are kept clean and they are now supplied with the town water, and the closets are connected with the drainage system.

No proceedings were taken before the Bench during the year.

## LITTLEHAMPTON URBAN SANITARY DISTRICT

TABLE 1.—Showing the Deaths at various Groups of ages in the 10 years 1876-85.

Year	Age 1 Year	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 45	45 to 50	50 to 55	55 to 60	60 to 65	65 to 70	70 to 75	75 to 80	80 to 85	85 to 90	90 to 95	95 to 100	Total	In 1000 Deaths
1876	10	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	103	1000
1877	10	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	103	1000
1878	10	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	103	1000
1879	10	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	103	1000
1880	10	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	103	1000
1881	10	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	103	1000
1882	10	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	103	1000
1883	10	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	103	1000
1884	10	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	103	1000
1885	10	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	103	1000
Total	100	70	40	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	1030	1000

TABLE 2.—Showing the Deaths and Death-rates in each of the 10 years 1876-85, from Zymotic Diseases.

Year	Small-pox	Scarlet fever	Diphtheria	Whooping-cough	Measles	Infantile mortality	Diarrhoea	Enteric fever	Typhoid fever	Cholera	Other	Total	Death-rate per 1000
1876	1	1	1	1	1	1	1	1	1	1	1	10	10
1877	1	1	1	1	1	1	1	1	1	1	1	10	10
1878	1	1	1	1	1	1	1	1	1	1	1	10	10
1879	1	1	1	1	1	1	1	1	1	1	1	10	10
1880	1	1	1	1	1	1	1	1	1	1	1	10	10
1881	1	1	1	1	1	1	1	1	1	1	1	10	10
1882	1	1	1	1	1	1	1	1	1	1	1	10	10
1883	1	1	1	1	1	1	1	1	1	1	1	10	10
1884	1	1	1	1	1	1	1	1	1	1	1	10	10
1885	1	1	1	1	1	1	1	1	1	1	1	10	10
Total	10	10	10	10	10	10	10	10	10	10	10	100	1000

## LITTLEHAMPTON URBAN SANITARY DISTRICT.

TABLE 1.—Showing the Deaths at various groups of ages in the 10 years 1876-85.

Year.	At all Ages.	Under 1 yr.	1 to 5.	5 to 15.	15 to 25.	25 to 60.	60 and over.
1876 .....	52	10	7	4	6	13	12
1877 .....	48	9	2	1	2	16	18
1878 .....	60	15	5	7	1	14	18
1879 .....	50	6	3	4	3	12	22
1880 .....	51	12	7	3	2	13	14
1881 .....	58	11	4	—	3	16	24
1882 .....	74	16	11	2	3	18	24
1883 .....	55	11	2	2	1	15	24
1884 .....	44	3	—	2	5	14	20
1885 .....	47	4	7	1	2	16	17
Total .....	539	97	48	26	28	147	193
In 1000 Deaths...	1000	180	89	49	52	272	358

TABLE 2.—Showing the Deaths and Death-rate in each of the 10 years 1876-85, from Zymotic Diseases.

YEAR.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Con. Fevers.			Diarrhoea and Dysentery.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever	TOTAL.	Rate per 1000 per-sons living.
						Typhus.	Enteric or Typhoid	Other.							
1876	::	::	3	::	1	::	::	::	3	::	1	::	::	8	2.2
1877	::	::	1	1	::	::	::	::	1	::	1	::	::	3	0.8
1878	::	::	3	::	::	::	::	::	1	::	::	::	1	5	1.3
1879	::	::	::	2	::	::	::	::	1	::	::	::	::	2	0.5
1880	2	::	::	::	::	::	::	::	1	::	::	::	::	3	0.7
1881	1	::	::	::	::	::	::	::	1	::	::	::	::	1	0.2
1882	2	::	::	::	3	::	1	::	1	::	::	::	::	6	1.5
1883	::	::	::	::	::	::	1	::	2	::	::	::	::	2	0.5
1884	::	::	::	::	1	::	::	1	1	1	::	::	::	3	0.7
1885	1	::	1	1	::	::	3	1	1	1	::	::	::	7	1.7
Tl.	—	6	7	4	5	—	1	3	9	1	3	—	1	40	1.0

LITTLEHAMPTON URBAN SANITARY DISTRICT.

TABLE 3.—Showing the Deaths and Death-rate from all causes and from various causes in different localities in the 10 years 1876-85.

YEAR.	Deaths during the 10 years 1876-85, from					Annual Death-rate per 100,000 living, from				
	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.	All Diseases.	Zymotic Disease.	Phthisis.	Lung Disease.	Heart Disease.
In 1876.....	52	8	6	8	2	1460	224	168	224	56
In 1877.....	48	3	3	10	4	1324	82	220	275	110
In 1878.....	60	5	8	5	3	1626	135	219	135	81
In 1879.....	50	2	6	5	5	1333	53	159	130	130
In 1880.....	51	3	8	6	4	1335	78	209	156	105
In 1881.....	58	1	7	6	8	1475	25	178	152	204
In 1882.....	74	6	5	16	4	1859	150	125	400	100
In 1883.....	55	2	5	9	3	1375	50	125	225	75
In 1884.....	44	3	5	5	5	1100	75	125	125	125
In 1885.....	47	7	4	4	7	1146	170	97	97	170
Total.....	539	40	62	74	45	1403	104	162	192	116
In 1876.....	49	7	5	7	2	1376	196	140	196	56
In 1877.....	46	3	8	10	3	1268	82	220	275	82
In 1878.....	58	5	8	5	3	1572	135	219	135	81
In 1879.....	50	2	6	5	5	1333	53	159	130	130
In 1880.....	45	3	5	6	4	1180	78	130	156	105
In 1881.....	55	1	7	6	8	1400	25	178	152	204
In 1882.....	66	4	4	15	3	1658	150	100	375	75
In 1883.....	54	2	5	9	3	1350	50	125	225	75
In 1884.....	41	2	5	5	4	1025	75	125	125	100
In 1885.....	46	7	4	4	7	1121	170	97	97	170
Total.....	510	36	57	72	42	1328	94	149	187	108

Including Visitors.

Excluding Visitors.

TABLE A.—Showing the Deaths during the year 1885, in the Urban Sanitary Localities, and showing also the Population of s

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	CENSUS 1881	Estimated to middle of 1885		At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
LITTLEHAMP. URBAN SANITARY DISTRICT.	3926	4100	81	44	4	7	1	2	16	14	Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
											Under 5. ..... 5 upwds
TOTALS .....	3926	4100	81	44	4	7	1	2	16	14	Under 5. ..... 5 upwds
Deaths occurring outside the district among persons belonging thereto.....				3						3	Under 5. ..... 5 upwds
Deaths occurring within the District among persons not belonging thereto .....				1					1		Under 5. ..... 5 upwds



TABLE B. showing the New Cases of Sickness coming to the knowledge of the District of LITTLEHAMPTON, classified according to the nature of the Sickness.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF LITTLEHAMPTON.						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough 18
Littlehampton Urban Sanitary District.	Under 5						2
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
Totals	Under 5						2
	5 upwds.						

Sources of information:— In Workhouse and Workhouse Infirmary, 11.





## URBAN SANITARY DISTRICT OF WEST WORTHING.

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POPULATION, 276 IN 1871 ; 689 IN 1881. AREA IN ACRES 300.  
No. OF HOUSES, 40 IN 1871 ; 98 IN 1881.

During the year 1885 the births of 7 children and the deaths of 8 persons were registered ; of the births, 1 was male and 6 were female ; of the deaths, 6 were male and two were female.

Estimating the population in the middle of the year at 1100, the birth-rate was equal to 6·3 per 1000, and the death-rate was equal to 7·3 per 1000 persons living.

The eight deaths included two from tuberculosis, one from cancer, one from disease of the larynx, one from heart disease, one from liver disease, one from paralysis and one from an accidental fall.

The births and deaths for the past ten years were as follows :—

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1876	2	4·4	4	8·8
1877	6	12·0	3	6·0
1878	8	14·5	1	1·8
1879	11	18·3	7	11·6
1880	13	20·0	5	7·7
1881	12	17·1	5	7·1
1882	12	15·8	10	13·1
1883	10	11·7	12	14·1
1884	9	9·0	9	9·0
1885	7	6·3	8	7·3

The exceptional distribution of the population as to age and sex accounts for the low birth and death-rates.

The total number of deaths in the past ten years at different groups of ages has been as follows :—

Under one year.	1—5.	5—15.	15—25.	25—60.	60 and over.	Total.
13	4	4	2	20	21	64

The 13 *infantile* deaths during the past decade included five from premature birth, four from debility, one from whooping-cough, one from hydrocephalus, one from tuberculosis, and one from convulsions.

The mean annual ratio of infant mortality is 144 deaths to every 1000 children born.

In 1885 there were no deaths from any form of zymotic disorder, and the district was in a very healthy state.

*Water Supply.*—No change has at present been made in the water-supply, but the town is increasing so rapidly in size, that it will be necessary before long to erect a water-tower whereby not only a constant system can be procured, but there would be also greater protection against fire. The main improvements in the water-supply in this district in recent years have consisted in having a separate cistern for drinking water, in making the waste or overflow pipe end in the open-air, and in providing a separate flushing cistern for each closet; the object being to cut off all connection between the water-supply and the drainage system. In all new houses this appears to be now done, and in nearly all the older houses where these defects existed, the needful changes have been carried out.

*Drainage.*—Many complaints have at various times been made as to foul gases coming up through the manholes. To remedy these complaints, the bottom of the manholes has been filled up so as to prevent any accumulation and flushing discs have been provided so as to more efficiently flush the drains; ventilating pipes have also been put up in direct connection with the sewer so as to convey the gases to a high point. In constructing a manhole, some engineers make a break in the line of the drain, so that the bottom of the manhole, which is square, is below the drain level and it acts as a kind of catch pit, and the angles become filled with refuse and cause a nuisance. These catch-pits are now filled up so that the contents of the drain pass along without obstruction.

All the sewage now passes into the sea, but at the outfall a stream of fresh water enters the sewer, so that the sewage is much diluted. In rough weather the sewage becomes mixed with sea-water and its presence is not noticed, but in very calm weather with an incoming tide complaints have been made that the sewage has been deposited on the beach. Owing to the great dilution of the sewage, its presence is seldom noticed, but the matter is now engaging the attention of the Sanitary Authority.

*Cholera precautions.*—As there is no harbour here no special precautions have had to be taken in case of an invasion of cholera, but those general precautions, as to purity of water-supply, good drainage and removal of refuse, have been carried out.

The following table gives a summary of the death-rate from all causes and from various causes during two recent periods of five years each.

Per 100,000 persons living All ages, both sexes.	1876-80.	1881-85.
General Death-rate ..	718	1012
Zymotic ,, ..	72	117
Phthisis ,, ..	72	70
Lung Disease ..	nil	23
Heart Disease ..	72	188
Under 1 year ..	10181	8235
Under 5 years ..	2807	1590

One *inquest* was held during the year:—male 5½ years, accidental fall from a wall.

There was no death returned as “not certified,” nor was there a death of any child born out of wedlock.

No cases of overcrowding had to be abated.

No cases arose during the year in which it was necessary to condemn meat or any other article of food which had been exposed for sale.

There is no common lodging-house or slaughter-house in the district.

No proceedings were taken before the magistrates during the year.

TABLE A.—Showing the Deaths during the year 1885, in the Urban Sanitary Localities, and showing also the Population of

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	CENSUS 1881	Estimated to middle of 1885		At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	
1	2	3	4	5	6	7	8	9	10	11	12
WEST WORTH. URBAN SANITARY DISTRICT.	689	1100	7	8	1	—	1	—	3	3	Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
											Under 5 ..... 5 upwds
TOTALS .....	689	1100	7	8	1	—	1	—	3	3	Under 5 ..... 5 upwds
Deaths occurring outside the district among persons belonging thereto.....											Under 5 ..... 5 upwds
Deaths occurring within the District among persons not belonging thereto .....											Under 5 ..... 5 upwds



TABLE B. showing the New Cases of Sickness coming to the knowledge of the District of WEST WORTHING, classified according to the Nature of the Sickness.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELONGING TO THE DISTRICT OF WEST WORTHING.						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough 18
West Worthing Urban Sanitary District.	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
	Under 5						
	5 upwds.						
Totals .....	Under 5						
	5 upwds.						





## URBAN SANITARY DISTRICT OF ARUNDEL.

POPULATION, 2956 IN 1871; 2748 IN 1881. AREA IN ACRES  
1969. NO. OF HOUSES, 546 IN 1871; 552 IN 1881.

During the year 1885 the births of 69 children and the deaths of 37 persons were registered; of the births, 37 were male and 32 were female; of the deaths, 21 were male and 16 were female.

These figures include the death of one person in the East Preston Workhouse which is outside this district.

Estimating the population in the middle of the year at 2750 the birth-rate was equal to 25.1 per 1000, and the death-rate was equal to 13.4 per 1000 persons living.

The births and deaths for the past four years have been as follows:—

Year.	Births.	Birth-rate.	Deaths.	Death-rate.
1882	82	30.0	50	18.1
1883	71	25.8	45	16.3
1884	70	25.4	40	14.5
1885	69	25.1	37	13.4

In each quarter the births and deaths were as follows:—

	Births.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
1st Quarter ..	12	13	25	9	4	13
2nd „ ..	10	5	15	6	2	8
3rd „ ..	8	4	12	3	4	7
4th „ ..	7	10	17	3	6	9
Total ..	37	32	69	21	16	37

The birth-rates and death-rates show a marked decline during the past four years; the decline in the former is noticeable all through West Sussex, and it is probably due in great measure to the general depression of trade throughout the country.

The deaths at different groups of ages are here shown:—

	Under 60 and					over.	Total.
	one year.	1—5.	5—15.	15—25.	25—60.		
1st quarter	—	2	—	3	4	4	13
2nd „	2	1	—	2	—	3	8
3rd „	1	1	—	—	—	5	7
4th „	—	—	1	—	5	3	9
Total	3	4	1	5	9	15	37

The *infant mortality* is here given as measured by the number of deaths under one year of age to the total number of births in the year :—

Year.	Births.	Deaths under 1 year.	Ratio to 1000 Births.	
1883 ..	71	6	84	
1884 ..	70	9	128	
1885 ..	69	3	43	
	Mean	70	6	86

The rate of infant mortality in 1885 throughout England and Wales was equal to 138 per 1000, against 141, 137, and 147 in the three preceding years.

The three *infantile* deaths in 1885 included one from diarrhoea, one from tuberculosis and one from bronchitis.

There were no deaths from small-pox, measles, scarlatina, diphtheria, whooping-cough, or any form of fever. An infant 9 months old, died of diarrhoea in September.

In the past three years there have been six deaths in the *zymotic class* of diseases, one from diphtheria, one from measles, one from whooping-cough, and three from diarrhoea.

The rate of zymotic mortality was, therefore, 0·3 per 1000 in 1885 against a rate of 0·3 and 1·4 per 1000 in the two previous years.

This district was in a very healthy state during the year.

*Water-supply.*—A full description was given in my 10th report, so that it need not be repeated here. The supply is excellent in quality and sufficient in quantity.

*Drainage.*—During the year attention has been paid to the frequent flushing and cleansing of the sewers and to their efficient ventilation. As the town is situated on the side of a hill, there is a rapid fall in most cases, so that the drains are very free from deposit, and the sewage is quickly carried off into the tidal river.

Several old closets have been removed or converted into water-closets and as most of the house property here belongs to the Duke of Norfolk, any alterations that are needed are at once carried out.

There are some old houses in Ship yard near the river which have not sufficient drainage, and it would be a good thing if these houses could be pulled down. There are about 15 houses, some of which are closed, forming a court, open at one end into a narrow road. In front of each cottage there is a small garden and down the centre of the court there is an open channel which carries storm water to a trap whence it flows by a drain into the river. There are only two closets for all these houses and these are frequently flushed and the drainage passes into the river.

There is no room to build any more closets without encroaching on the air-space in the court which is now sufficiently small; the property belongs to different owners and although the houses are old and dilapidated, the health of the inmates, who are mostly old people, is very good.

*Cholera precautions.*—At one time there was a considerable traffic on the river Adur, and by means of canals, boats could ply from the sea up to London. The introduction of railways stopped this traffic in a great measure. The canal from Ford to Itchenor, by which goods were conveyed from Chichester to Arundel, is now disused and at the western end a long, straight, grassy hollow now marks the site of the old canal. Another canal by the side of and in connection with the river Arun ran north up to Guildford. Traffic can now get no farther than New Bridge, a spot half-way between Wisborough Green and Billingshurst, where there is a small quay and an occasional barge. North of this spot the canal is blocked with weeds and vegetation, but further north still, at Loxwood, the canal is open for navigation into Surrey, but there can now be no through traffic from Arundel to Guildford. Another canal, by the side of, and in connection with the river Rother which joins the Arun at Pulborough, enables goods to be conveyed to Petworth and Midhurst. The quay for Petworth is at Coultershaw Mill, nearly two miles south of the town and a good deal of coal is brought here from Littlehampton. The traffic to Midhurst is small. Only barges can ply on the canal, and they are from 15 to 20 in number. There is no regular cabin accommodation on these barges and no women or children dwell on them. Now and then the man in charge sleeps in the lighter.

About 20 vessels a year pass in and out between Littlehampton and Arundel; they cannot go further up the river, as a bridge at Arundel prevents their passage northwards.

Wood and corn come from the Baltic and coal is brought into the port of Littlehampton by coastwise vessels, but it is rare for any vessel to come from Spain or the Mediterranean, and only a few come from France. It is still rarer for any foreign vessel to come as far as Arundel, the chief traffic here consisting in barges and colliers which go down to Littlehampton to load with timber, coal, bricks, &c. and then convey these goods to different parts of the country. No provision has been made for the reception of any cholera patients, and, in fact, any such case would be stopped and dealt with at Littlehampton.

Although no special precautions have been taken, yet a good water supply has been provided, the drainage system is in good order, dirty houses have been limewashed, refuse heaps are removed frequently and scavenging is carried on regularly.

*Inquests* were held in two cases during the year:—male. 18 years, heart disease; male, 45 years, natural causes, abscess on the brain.

There were no deaths returned as “not certified” during the year.

There were no deaths of any children born out of wedlock.

There were no cases of overcrowding dealt with during the year.

There are eight bakehouses, and these are all very fairly kept; more regularity should be shown in limewashing them in the spring and autumn.

There are three common lodging-houses, which are kept in a cleanly condition.

There are five slaughter-houses, which are well kept, and which are limewashed and cleansed at intervals.

No case arose during the year in which it was necessary to condemn meat or any other article of food which had been exposed for sale.

No proceedings were taken before the magistrates during the year.



TABLE A.—Showing the Deaths during the year 1885, in the Urban Sanitary Districts and showing also the Population of

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.							
	CENSUS 1881	Estimated to middle of 1885		At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.	
ARUNDEL URBAN SANITARY DISTRICT.	2748	2750	69	36	3	4	1	5	8	15	Under 5.5 5 upwds
											Under 5.5 5 upwds
											Under 5.5 5 upwds
											Under 5.5 5 upwds
											Under 5.5 5 upwds
											Under 5.5 5 upwds
											Under 5.5 5 upwds
											Under 5.5 5 upwds
											Under 5.5 5 upwds
											Under 5.5 5 upwds
											Under 5.5 5 upwds
TOTALS .....	2748	2750	69	36	3	4	1	5	8	15	Under 5.5 5 upwds
Deaths occurring outside the district among persons belonging thereto.....				1					1		Under 5.5 5 upwds
Deaths occurring within the District among persons not belonging thereto .....											Under 5.5 5 upwds



TABLE B. showing the New Cases of Sickness coming to the knowledge of the District of ARUNDEL, classed according to Age and Sex.

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELOW						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough 18
Arundel Urban Sanitary District.	Under 5 ..... 5 upwds.		1				
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
	Under 5 ..... 5 upwds.						
Totals .....	Under 5 ..... 5 upwds.		1				

Sources of Information: In Workhouse and Work

Medical Officer of Health, during the year 1885, in the Urban Sanitary District, according to Localities and Diseases.

THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS

21	22	23	24	25	26	27	28	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record.
							1	
							1	

January, 5. Among the Out-door Paupers, 53.



# GENERAL REPORT

ON THE

HEALTH OF THE COMBINED

SANITARY DISTRICT OF WEST SUSSEX.

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The combined Sanitary District includes at the present time the urban sanitary districts of Worthing, West Worthing, Littlehampton, and Arundel, and the rural sanitary districts of Steyning, Horsham, Petworth, Thakeham, East Preston, Midhurst, and Westbourne.

This large area covers 35,492 square acres, or about 524 square miles. Upon this area there were in 1881, 19,083 inhabited houses with an enumerated population, including Arundel, of 97,348, or 5.1 persons to each house.

In the seven rural districts there are about 5.02 persons to each house, while in the four urban districts the number rises to 5.47.

During the past five years there have been 14,556 births and 7,195 deaths, so that the natural increase of population by excess of births over deaths was, therefore, 7,361, the births being more than twice as numerous as the deaths. The census was taken in April, 1881, and by the middle of that year the population was estimated to have risen to 97,608, including the borough of Arundel, which, however, did not join the combination until 1882.

In the middle of 1885 the population was estimated at 103,930 or an increase of 6,322 in four years. Although in the more

rural districts the population has been nearly stationary, yet there has been a rapid increase in the populous places along the sea-coast, and more especially at Worthing and West Worthing.

In comparing the figures in the following report it must be remembered that the facts for Arundel with its population of 2,750 are only given for the years 1883, 1884, and 1885, and for Westbourne since 1880.

#### BIRTHS.

During the year 1885, the births of 2,796 children were registered, and of these 1456 were male and 1340 were female.

The following table shows the births and birth-rate during the past ten years :—

Year.	Population.	Births.		Total.	Rate Per 1000.
		Male.	Female.		
1876	81703	1253	1187	2440	29·8
1877	82610	1309	1240	2549	30·8
1878	83627	1328	1253	2581	30·8
1879	84648	1379	1255	2634	31·1
1880	86244	1277	1337	2614	30·3
1881	94860	1463	1405	2868	30·2
1882	96220	1592	1381	2973	30·9
1883	100430	1460	1426	2886	28·7
1884	102500	1578	1455	3033	29·5
1885	103930	1456	1340	2796	26·9
Total		14095	13279	27374	29·9

Although in consequence of the increased population the actual number of births was higher than in any previous year, yet the birth-rate was lower than in any previous year.

The *birth-rate* in 1885 throughout England and Wales was equal to 32·5 per 1000 persons estimated to be living in the middle of the year; it was lower than in any previous year since 1848, and it was 2·2 below the mean annual rate in the ten years, 1875-84.

In each quarter of the past year the births were thus distributed:—

	Male.	Female,	Total.	Per cent.
1st Quarter... ..	402 .....	367 .....	769 .....	27·5
2nd ,, .....	332 .....	323 .....	655 .....	23·4
3rd ,, .....	371 .....	314 .....	685 .....	24·5
4th ,, .....	351 .....	336 .....	687 .....	24·6
<b>Total...</b>	<b>1456</b>	<b>1340</b>	<b>2796</b>	<b>100·0</b>

The male births were in each quarter in excess of the females.

During the past ten years, with the exception of 1880, there have been born in each year more boys than girls. Out of the 40 quarters during this period, there were nine quarters in which more females than males were born, viz., once in each of the years 1876, 1877, and 1878, and twice in each of the years 1879, 1880, and 1881. This female excess occurred three times in the first quarter of the year and twice in each of the other quarters of the year. In 31 quarters the male births were in excess.

	Births in each quarter, 1876-85.			Per cent.
	Male.	Female.	Total.	
1st Quarter ..	3601 ..	3529 ..	7130 ..	26·0
2nd ,, ..	3550 ..	3283 ..	6833 ..	25·0
3rd ,, ..	3485 ..	3250 ..	6735 ..	24·6
4th ,, ..	3459 ..	3217 ..	6676 ..	24·4
<b>Total..</b>	<b>14095</b>	<b>13279</b>	<b>27374</b>	<b>100·0</b>

During the whole period of ten years there were 14095 male and 13279 female children born, or an excess of 816 boys, giving a proportion of 106·1 males to every 100 females born. This proportion is higher than that which prevailed throughout England during the decade 1871-80, when it was 103·8 to 100. In the whole of Sussex during the same period the proportion was 103·9 to 100.

The birth-rate per 1000 persons living in each district on the average of the past ten years is here contrasted :—

District.	Birth-rate.	District.	Birth-rate
Steyning .....	31·8	Westbourne (6 years)..	29·1
Horsham.....	31·2	Worthing .....	27·6
Petworth.....	28·8	Littlehampton .....	27·3
Thakeham .....	31·0	West Worthing .....	12·9
East Preston .....	30·2	Arundel (4 years) .....	26·6
Midhurst.....	29·8		

The difference in the rates is to be accounted for by the greater proportion of married women in some districts than in others who are living at the child-bearing ages.

#### DEATHS.

During the year 1885 the deaths of 1522 persons were registered, and of these 816 were male and 706 were female.

The death-rate in each district during the past year is here given :—

District.	Population.	Deaths.	Death rate
Steyning .....	18160	260	14·3
Horsham.....	16430	228	13·8
Petworth.....	9550	155	16·2
Thakeham .....	8250	119	14·4
East Preston .....	8530	132	15·4
Midhurst.....	14500	233	16·0
Westbourne.....	7520	125	16·6
Worthing .....	13040	{ 178	{ 13·6
		{ *161	{ *12·3
Littlehampton.....	4100	{ 47	{ 11·4
		{ *46	{ *11·2
West Worthing ..	1100	8	7·3
Arundel .....	2750	37	13·4
<hr/>	<hr/>	<hr/>	<hr/>
Total.....	103930	{ 1522	{ 14·6
		{ *1504	{ *14·4

\*Excluding visitors.

There were 1504 deaths actually registered in the whole district, but to this number should be added the deaths of 41 persons occurring outside the district among persons belonging thereto; from this total of 1545 there should be deducted the deaths of 41 persons occurring within the district among persons not belonging thereto, leaving the total number as before at 1504. Of these 41 persons, 18 were visitors at Worthing and Littlehampton, while 23 were persons who died in Workhouses, and who came from places not included in the combination. The 18 deaths among visitors, added to the above number of 1504, make a total of 1522 deaths, or 35 more deaths than in the previous two years.

The deaths and death-rate in each of the past ten years are here shown :—

Year.	Population	Deaths.			Rate per 1000
		Male.	Female.	Total.	
1876.....	81703	725	626	1351	16.5
1877.....	82610	642	570	1212	14.6
1878.....	83627	690	664	1354	16.1
1879.....	84648	695	597	1292	15.2
1880.....	86244	689	598	1287	14.9
1881.....	94860	720	603	1323	13.9
1882.....	96220	705	671	1376	14.3
1883.....	100430	782	705	1487	14.8
1884.....	102500	756	731	1487	14.5
1885.....	103930	816	706	1522	14.6
<b>Total.....</b>		<b>7220</b>	<b>6471</b>	<b>13691</b>	<b>14.9</b>

The death-rate in England and Wales in 1885 was equal to 19.0 per 1000 persons living; the rate, however, being much higher in large towns than in smaller places.

	Death-rate in 1885.	Mean, 1875-84.
Chief Towns .....	20.0	21.9
Small Towns and County Parishes .....	17.5	18.3
England and Wales .....	19.0	20.4

The following summary shows the changes in the death-rate in various districts during the last eleven years:—

	West Sussex	Chief Towns.	Rural Districts.	England.
1875 .....	17·0	24·2	20·7	22·7
1876-80 .....	15·4	22·4	21·2	20·8
1881 .....	13·9	20·3	16·8	18·9
1882 ..	14·3	21·1	17·2	19·6
1883 .....	14·8	20·8	17·7	19·5
1884 .....	14·5	21·0	17·4	19·6
1885 ..	14·6	20·0	17·5	19·0

In each quarter of the past year the deaths were thus distributed:—

	Male.	Female.	Total.	Per cent.
1st Quarter...	240	208	448	29·4
2nd „	191	169	360	23·7
3rd „	187	158	345	22·7
4th „	198	171	369	24·2
Total	816	706	1522	100·0

In each quarter of the past ten years the deaths were as follows:—

Year.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.
1876 .....	406	339	293	313	1351
1877 .....	330	324	266	292	1212
1878 .....	366	322	329	337	1354
1879 ..	398	327	266	301	1292
1880 .....	364	333	314	276	1287
1881 .....	369	354	307	293	1323
1882 .....	381	319	329	347	1376
1883 .....	399	424	322	342	1487
1884 .....	381	333	383	390	1487
1885 .....	448	360	345	362	1522
Total...	3842	3435	3154	3260	13691
Per cent...	28·0	25·1	23·0	23·9	100·0

The deaths on the average during the last decade were most numerous in the first, and least frequent in the third quarter of the year.

The deaths at different groups of ages in each quarter during the past year were as follows:—

	Under 1 Year.	1-5.	5-15.	15-25.	25-60.	60 & over.	Total.
1st Quarter	80	52	19	13	91	193	448
2nd „	54	39	17	28	83	139	360
3rd „	60	35	17	23	78	132	345
4th „	50	40	18	20	85	156	369
Total .....	244	166	71	84	337	620	1522

When the figures for the past seven years are compared it will be seen that in infant life the first and third quarters are the most unfavourable; that in old age, the first quarter is most fatal, while the third quarter shows the least mortality; and that from childhood up to sixty years of age the deaths are pretty uniformly distributed throughout the year.

1879—85.	Under 1 year.	1-5	5-15	15-25	25-60	60 & over.	Total.
1st Quarter	....	508	287	124	129	570	1122
2nd „	.....	403	219	150	128	591	959
3rd „	.....	485	209	104	125	552	791
4th „	.....	371	215	127	123	559	923
Total .....	.....	1767	930	505	505	2272	3795

This table should be compared with Table X where the mean temperature of each month is shown, and also the number of deaths in each month.

The influence of *season* may be better seen by dividing the year into three equal periods according to the temperature, and the following figures show the number of deaths in the past ten years which occurred during each such period.

	Cold.	Deaths.	Per Cent.
December to March.....	36 deg.—41 deg.	5025	... 36·7
	Moderate.		
April, May. Oct. Nov....	41 deg.—57 deg.	4455	... 32·5
	Hot.		
June to September.....	57 deg.—63 deg.	4211	... 30·7
Total ...	...	13691	100·0

The following table shows the number of deaths in each year at different groups of ages:—

Year.	All Ages.	Under 1 year.	1-5.	5-15.	15-25.	25-60.	60 and over.
1876 ..	1351	252	158	64	64	331	482
1877 ..	1212	218	86	69	61	316	462
1878 ..	1354	261	127	65	60	310	531
1879 ..	1292	231	98	57	75	280	551
1880 ..	1287	267	134	76	68	270	472
1881 ..	1323	239	99	60	62	320	543
1882 ..	1376	269	154	81	66	312	494
1883 ..	1487	255	142	65	78	385	562
1884 ..	1487	262	137	95	72	368	553
1885 ..	1522	244	166	71	84	337	620
Total ..	13691	2498	1301	703	690	3229	5270
Per 10000 ..		1825	950	513	504	2358	3850

These figures should be contrasted with Table IV which shows the death-rate in twelve groups of ages, calculated for each sex on the estimated population in each group; similar rates are given for the whole of England and Wales in the healthy year 1881, whereby it will be seen how much lower the mortality is in rural districts.

For males the rates are in nearly all cases higher than for females.

The mortality which is at the rate of 25 per 1000 for females under five years of age, sinks as low as 2·4 per 1000 for females between ten and fifteen years of age; it then rises gradually up to 10 per 1000 for females between forty-five and fifty-five years of age; the rate is nearly doubled in the next decade, and then there is a rapid increase up to the end of life.

Similar differences may be noted in the male death-rates.

## INFANT MORTALITY.

During the year 1885 there were 244 deaths of infants under one year of age out of a total of 1522 deaths.

There were 2796 births, so that the infant mortality, as measured by the number of deaths under one year of age to every 1000 children born, was 87 against a rate of 103, 85, 101, 87, 102, 83, 90, 88 and 86 in the nine preceding years. The mean rate for the whole of this period amounts to 91 deaths to every 1000 children born. In the first half of this period the mean rate was 95, while during the last half the mean rate has been only 87 per 1000. Throughout England and Wales the rate of infant mortality in 1885 was equal to 138 per 1000, against 141, 137 and 147 in the three preceding years. In large towns, the infantile death-rate is very much higher.

Of the above 244 infantile deaths, three were from measles, one was from diphtheria, eleven from whooping-cough, ten from diarrhœa, three from erysipelas, one from abscess, six from tabes mesenterica, ten from tuberculosis, three from brain disease, thirty-nine from convulsions, forty-nine from lung diseases, eleven from intestinal disorders, and one from an accident.

Forty-six infants were prematurely born, four were malformed, thirty-five died soon after birth from debility or atrophy, one was murdered, and ten died from natural causes; in nearly all these ten cases inquests were held.

In each district the rate of mortality on the average of the past ten years is as follows:—

Steyping.....	105	Midhurst.....	87
Horsham .....	84	Westbourne (5 years) ..	84
Petworth.....	81	Worthing .....	106
Thakeham .....	80	Littlehampton .....	90
East Preston .....	87	West Worthing.....	144
Arundel (3 years).....	86		

## ZYMOTIC DISORDERS.

This class includes a number of diseases which are looked upon as more or less preventable ; it includes some which, like small-pox and scarlatina, are very catching, and others, like diarrhoea, which are not catching at all in the ordinary sense of the term. The term is retained for the sake of convenience and for comparison with other districts, but it must be understood that not all the diseases included in this group are catching, nor are they all preventable so far as ordinary sanitary measures are concerned.

Out of 1522 deaths from all causes in 1885, 152 were due to this class of diseases, or 1·4 to every 1000 persons living. During the last ten years 1344 deaths have occurred in this group, or 1·4 deaths to every 1000 of population. The highest rate was 2·0 in 1876 and the lowest was 0·2 in 1879. The deaths in this group are most numerous in the third quarter of the year, owing to the prevalence of diarrhoea in August and September. Table VIII shows the number of deaths from various diseases in this group during each month in the past six years. Out of 864 deaths there recorded in 1880-85, diphtheria, whooping-cough and diarrhoea head the list with 169 deaths each, followed by scarlatina, enteric-fever, measles and erysipelas. Table IX. shows the different ages of life at which these disorders prove most fatal ; about three out of four deaths in this group occur under ten years of age.

## ZYMOTIC DISEASES OF CHILDREN CONTRASTED.

The frequency with which diphtheria appears in certain parts of West Sussex has led me to compare the death-rates in the various districts to see what conditions are present to account for its prevalence. The mortality during the past ten years from measles, scarlet-fever, diphtheria and whooping cough is here contrasted in reference to the various soils met with in the country. In the whole of England scarlet fever is the most frequent of the common catching disorders of childhood, causing during the last decade an annual death-rate of 716 per million persons living ; whooping cough is next, with an annual rate of 512 ; measles is third with an annual rate of 378 ; and diphtheria

is last with an annual rate of only 121 persons per million, or about one-sixth of the mortality from scarlet fever. Taking the whole of Sussex during the same period, the majority from these four diseases is not much more than half that given above, and the order is changed. Whooping cough is first with a rate of 341 per million instead of 512; scarlet fever is second with a rate of 234 instead of 716; measles is third with a rate of 172 instead of 378; and diphtheria, although still last, has risen from 121 to 170 per million. When the facts for each Union are examined, it will be seen that whereas in Brighton diphtheria only causes about 81 deaths per million, yet in Petworth the mortality is more than five times, and in Horsham it is more than three times higher. And this is the more striking when the death-rate from all causes is much higher in Brighton than in the other two districts. Of the four diseases of childhood, diphtheria is the only one which shows this increase in the rural districts, for the mortality in Horsham and Petworth from scarlet fever, whooping cough, and measles is less than half that met with in Brighton. The crowding together of children in large towns may account for the increased mortality there as compared with that in smaller towns, and in rural districts, but it does not account for the fact that so catching a disease as diphtheria is most common in lonely, isolated places, and least frequent in urban districts, where there is a constant intermixture of children. But the comparison of one Union with another is a very inaccurate method, because the presence or absence of a large town, or the nature of the soil may cause much difference. Thus the north portion of Petworth Union is on the Weald clay, while the south portion is chiefly on the upper and lower greensands, and therefore on much drier formations. The variety of soil in West Sussex led me six years ago to compare the death-rate of phthisis and diphtheria upon those formations, and to see what influence a wet or dry soil had upon the mortality. The present comparison deals with a period of ten years, 1876-85, and the deaths from diphtheria are contrasted with those of measles, scarlet fever, and whooping cough, and with the deaths at all ages from

all causes. The combined district of West Sussex covers an area of 335,492 square acres, or about 524 square miles, with a population at the present time of 104,000. Two of the districts have only joined the combination within the last few years, so that the mortality in them cannot be given for the past decade. Taking away these districts, one urban and one rural, there is a population left estimated at 86,990 in the middle of the period, and dwelling on an area of 305,483 square acres, or 477 square miles. The different soils may be divided into three classes:—

1. The pervious soils, which include the upper and lower greensands, the chalk and the lower Tunbridge Wells sands.

2. The retentive soils, which include the Weald clay, the clayey beds of the lower greensand and the gault.

3. There is a long strip of nearly level land between the Southdowns and the sea, where the chalk is covered for a depth of 15 to 50 feet with loam and brick-earth. The surface of this soil rises gently from the sea towards the Downs, so that although in some parts the clays are retentive, yet the slope towards the sea enables surface water to flow away readily, except in some of the low-lying brooklands.

On the upper greensand there are 23 parishes, but in only three of them did any cases of diphtheria occur; with a population of 8,317, there were only nine deaths in ten years, and of these five occurred in a village lying low and near a river. On the lower greensand there are 30 parishes, but in only nine of them did the disease appear; with a population of 15,707 there were only nine deaths in the decade, and of these, four occurred in wet and low-lying places. On the chalk there are 18 parishes, in only three of which were there any deaths from diphtheria; there were eight deaths amongst a population of 6,491. On the Tunbridge Wells sands there are two parishes with a population of 3,305, and there were only three deaths. In these 73 parishes, with a population of 33,820, the diphtheria death-rate was 127 per million. On the Weald clay there are 21 parishes with a population of 19,288; diphtheria was the cause of death in 77 cases in 14 of these parishes. On the clayey beds of the lower

greensand there are four parishes with a population of 3,799 and diphtheria caused 22 deaths. On the gault very few people dwell, and this formation only appears as a narrow bed between the upper and the lower greensands; yet here, among a population of 448, there were 8 deaths, while during the ten years there were no deaths from measles, scarlet fever, or whooping cough. On these retentive soils there are 26 parishes, with a population of 23,530, and the diphtheria death-rate was 454 or nearly four times the rate met with on pervious soils. On the loamy soils between the Downs and the sea, with a population of 29,640, there were 64 deaths, giving a rate of 216 per million. There are here 25 parishes, and in 16 of them the disease appeared. The death-rate per million living at all ages from certain diseases is shown in the following table:—

Nature of soil.	Population.	Measles.	Scarlatina.	Diphtheria.	Whooping cough.	All causes.
Pervious soils	33820	77	177	127	290	14852
Mod. perv. soils	29640	209	260	216	330	14463
Retentive soils	23530	119	182	454	250	14942
West Sussex	86990	133	185	246	293	14741

There is some difference in the social condition of the people on the different areas. To the north of the Downs the people are chiefly engaged in agriculture, and the population is very scattered and isolated. There is here no large town, and only two places contain more than two thousand people. Railway communication is good, except in some outlying parishes in the north of the Weald, inhabited by a primitive people, and it is in these very parts where the population is most isolated, that the disease chiefly occurs. Except in Petworth, where there is now an excellent water supply, the whole of this area obtains its water from wells sunk in the various formations, or from tanks constructed for the purpose of storing water. The wages of the agricultural labourer are low, but the rent is low too, and most of the cottages have a fair sized garden producing fresh vegetable food. To the south of the Downs there are several large and populous places, and as the railway runs along the coast, com-

munication is rapid, and there is much shifting of the population. Three-fourths of the population live in well paved towns with a good supply of water drawn from springs or deep wells in the chalk and laid on to each house. In these towns there is a good system of drainage, and the sewers are well ventilated, all the sewage passing away to the sea. The people are aggregated closely, and isolation can with difficulty be carried out. The remaining one-fourth of the district contains a rural population chiefly engaged in agriculture. In spite of all these differences it will be seen that, although the death-rate from various causes may vary, yet that the general death-rate from all causes is equal all through the district.

RAINFALL.—The annual rainfall at Worthing has varied from 24·75in. in 1884 to 35·39in. in 1877, the mean of the past ten years being 30·48 inches. At Petworth, which is in the Weald district, the amount is much higher, varying from 26·65in. in 1884 to 46·38in. in 1880, the mean for the last ten years being 37·17, or 6·69 inches more than in places south of the chalk range. But this difference in the rainfall hardly expresses its effect on the wetness of the soil, because south of the Downs the surface water flows readily away, while on the Weald clay the surface in many parts becomes water-logged, and some of the by-roads are almost impassable in winter. Diphtheria is most fatal in early childhood. Unlike measles and whooping cough, it kills but few infants in the first and second years of life, but, from three to ten years of age, the disease is very fatal. Each sex seems equally liable to it, for, out of 214 deaths, 106 were male, and 108 were female. Of the 214 deaths, 6 died under one year of age, 12 between one year and two years, 84 between five years and ten years, 19 between ten years and fifteen years, 12 between fifteen years and twenty-five years, while, after that period, there were only 10 deaths, the eldest being nearly seventy years of age. The disease seems to be increasing in frequency, as there were only 76 deaths in the first half of the period, against 138 deaths in the second half of the past ten years. Since the disease is most prevalent among young children, it

might be supposed that school attendance had much to do with the spread of the disorder. If this were the case, diphtheria might be expected to prevail the most in large towns, where children are constantly mixing together, but this is not so; and, even in rural districts, it is far more common to find those children attacked who live in outlying places than those who dwell in populous villages.

#### RAINFALL.

The rainfall for the past year at three places in the combined district is here shown:—

1885.	WORTHING.		HORSHAM. (Mr. R. Sheppard.)		PETWORTH. (Rev. C. Holland.)	
	Rainfall in inches.	No. of rainy days.	Rainfall in inches.	No. of rainy days.	Rainfall in inches.	No. of rainy days.
Jan. ..	1.69	11	1.93	10	2.78	11
Feb. ..	3.67	20	2.98	17	4.75	16
March ..	2.40	10	2.28	8	2.25	4
April ..	0.96	9	1.08	8	1.29	9
May ..	3.33	15	3.23	17	4.17	15
June ..	1.40	8	1.36	9	1.96	6
July ..	0.78	5	0.16	3	0.41	4
August ..	0.73	9	0.88	8	1.15	8
Sept. ..	5.59	20	4.04	17	4.92	15
Oct. ..	4.02	18	3.57	17	4.37	16
Nov. ..	3.36	13	2.69	13	3.67	13
Dec ..	1.35	12	1.28	16	1.58	7
Total ..	29.28	150	25.78	143	33.30	124

The first five years of the past decade were much wetter than the last five years. The years 1877-80 were very wet periods, since which time much less rain has fallen.

In 1876-80, the average rainfall at Worthing was 31.99in per year, while in 1881-85, the average rainfall was 27.16in., or a difference of 4.83 inches per year in the two periods.

In Petworth, 41.07 inches fell on the average of each year in the former period, while 33.27 inches fell on the average of each year in the last five years, or a difference of 7.80 inches.

The rainfall at three different places in the combined district is here contrasted for a term of ten years :—

Year.	Worthing.		Horsham.		Petworth.	
	Inches.	Rainy days.	Inches.	Rainy days.	Inches.	Rainy days.
1876	30·14	160	—	—	37·72	125
1877	35·39	177	—	—	44·89	162
1878	29·42	165	—	—	32·68	128
1879	32·13	170	—	—	43·68	135
1880	32·91	144	34·10	177	46·38	118
1881	29·97	161	29·53	163	34·89	115
1882	32·70	191	31·30	192	35·69	145
1883	28·10	170	30·84	178	35·80	142
1884	24·75	119	23·39	136	26·65	115
1885	29·28	150	25·78	143	33·30	124
Mean	30·48	160·7	29·15	164·8	37·17	130·9

#### HOURS OF SUNSHINE.

The following figures are taken from the Kew records, which are published weekly ; they show the amount of bright sunshine in the South of England during the past six years, and they may be taken as approximately correct for this district :—

	hours.	hours.	hours.	hours.	hours.	hours.	hours.
	1879	1880	1881	1882	1883	1884	1885
1st Quarter	138	235	176	203	300	196	187
2nd „	352	524	559	571	578	483	584
3rd „	355	487	526	509	465	525	542
4th „	138	168	245	215	190	161	177
Total	933	1414	1506	1498	1533	1365	1490

The year 1879 was very wet, dark and gloomy, and for agricultural purposes it was the worst year known since 1861. Since 1879 there has been a period of less rainfall and brighter weather. There was more sunshine in the second and third quarters of 1885 than in any other year of the above series.

In this country the hours of bright sunshine are rather less than one-third of the time that the sun is above the horizon.

## TEMPERATURE.

The face and figures here given are taken from the weekly and monthly records of the Meteorological Office, so far as they affect the South of England; they may be taken as approximately correct for this district:—

	1882			1883			1884			1885		
	Highest.	Lowest.	Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	Mean.	Highest.	Lowest.	Mean.
Jan.....	54	24	41.1	57	27	43.8	54	30	43.8	51	21	36.1
Feb.....	57	22	43.0	55	26	42.5	54	25	43.0	58	23	43.9
March ...	66	26	45.2	66	14	38.4	69	25	42.6	62	23	41.8
April ...	65	30	49.0	68	26	47.3	68	23	45.0	73	23	46.6
May ...	74	33	54.1	79	29	51.8	83	31	50.5	66	29	48.0
June ...	77	37	57.2	84	37	58.2	83	34	56.7	84	36	57.7
July ...	77	43	60.5	75	40	59.0	86	39	61.5	91	41	61.5
August..	84	43	61.0	82	42	62.0	92	42	65.3	83	35	59.8
September	71	33	55.8	77	36	58.0	83	35	59.6	76	30	56.5
October	67	28	51.1	65	34	51.5	67	30	50.1	65	30	48.0
November	61	21	44.5	58	23	44.8	62	21	45.1	57	26	43.1
December	56	12	38.8	58	25	42.0	56	21	42.6	59	19	41.1

The principal features of the year are thus summed up:—

January. Rather cold, dry and gloomy.

February. Mild showery, unsettled.

March. Rather cold and dry.

April. Rather cold and dry; proportion of bright sunshine increasing.

May. Cold, showery, changeable.

June. Cold as a rule, but spasmodically warm; frost frequent and sharp. Amount of sunshine large.

July. Fine, very dry, but not warm, although two hot days (25th and 26th) occurred; much northerly wind.

August. Cool, very dry; much northerly wind. Frost on grass about middle of month.

September. Cold, very wet, squally and changeable.

October. Cold; exceedingly rough and changeable; depressions moving in all sorts of directions, and changing intensity often.

November. Rather cold; wet and at times very unsettled. Much fog and cloud.

December. About normal temperature; sharp frosts and mild weather alternately, with variable winds.

In the next table will be found the accumulated values for heat, rainfall and bright sunshine during the past two years. The amount of sunshine and rain was greater in 1885 than in 1884, but the heat in day degrees was lower, so that 1885 was colder on the whole than 1884.

	Heat in day degrees.		Rainfall.		Bright sunshine.	
	Above 42 deg F.	Below 42 deg F.	No of rainy days.	Fall in inches.	No of hours.	Percent of possible duration
1884.						
Jan. to March	330	119	48	6·8	196	20
Jan. to June	1288	185	79	11·8	679	28
Jan. to Sept.	3041	185	122	17·7	1204	33
Jan. to Dec.	3495	310	163	23·7	1365	30
1885.						
Jan. to March	202	345	45	7·3	187	21
Jan. to June	1133	402	88	13·2	771	34
Jan. to Sept.	2694	405	122	18·2	1313	37
Jan. to Dec.	3055	573	171	27·2	1490	34

The temperature of the soil at 9 a.m., one foot below the surface of the ground at Worthing, has been taken daily by W. J. Harris, Esq., F. R. Met. Soc., and the results for each month are here given:—

1885	Mean.	Max.	Min.	Mean in 1884.
January .. ..	38·3	42·4	36·1	42·7
February .. ..	42·7	46·1	39·3	43·6
March .. ..	43·1	45·1	40·4	45·3
April .. ..	48·8	54·7	43·9	48·2
May .. ..	53·6	59·7	51·1	55·6
June .. ..	61·4	64·2	58·2	60·2
July .. ..	63·9	67·2	62·0	64·8
August .. ..	62·3	65·0	59·7	67·1
September .. ..	58·9	62·7	51·3	61·9
October .. ..	50·4	55·4	45·6	52·8
November .. ..	45·1	49·8	39·4	46·0
December .. ..	40·6	47·1	36·1	42·6
Year .. ..	50·8	67·2	36·1	52·6
In 1884 .. ..	52·6	71·0	38·4	

The following table is also taken from observations made by Mr Harris, who has kindly allowed me to make use of them; the facts recorded concern Worthing only:—

Month.	Means at 9 a.m.		Temperature.						Rain.		
	Temperature.	Humidity.	Means.			Extremes in Month.			Amount.	No. of rainy days.	
			Min.	Max.	Range.	Mean.	Min.	Max.			Range.
January.....	37.7	89	34.5	41.4	6.9	38.0	26.5	48.2	21.7	1.66	13
February.....	43.6	90	39.6	47.4	7.8	43.5	29.5	53.0	23.5	3.59	21
March.....	41.6	78	36.0	48.1	12.1	42.0	30.7	57.7	27.0	2.15	10
April.....	49.1	75	40.8	54.8	14.0	47.8	31.7	68.2	36.5	0.84	11
May.....	52.2	74	44.2	56.7	12.5	50.5	33.1	64.1	31.0	3.12	17
June.....	60.1	74	51.8	65.4	13.6	58.6	43.0	76.4	33.4	1.41	9
July.....	63.7	72	54.2	69.1	14.9	61.6	46.8	81.7	34.9	0.77	5
August.....	61.2	72	52.9	67.0	14.1	60.0	45.3	73.0	27.7	0.74	9
September.....	58.0	83	51.2	63.3	12.1	57.2	36.3	68.7	32.4	5.40	20
October.....	48.7	80	42.9	54.1	11.2	48.5	35.3	61.1	25.8	3.79	17
November.....	45.0	89	41.1	49.1	8.0	45.1	32.1	56.7	24.6	3.27	13
December.....	39.3	89	35.6	44.4	8.8	40.0	25.2	50.5	25.3	1.35	11
Year.....	50.0	80	43.7	55.1	11.4	49.4	25.2	81.7	56.5	28.09	156

TABLE I—Showing the Births in 1885.

District.	1st Quarter.			2nd Quarter.			3rd Quarter.			4th Quarter.			Year.	Per 1000		
	M.	F.	TL.	M.	F.	TL.	M.	F.	TL.	M.	F.	TL.				
Steyning .....	78	65	143	58	68	126	77	55	132	63	60	123	276	248	524	28.8
Horsham .....	58	61	119	51	49	100	58	55	113	52	45	97	219	210	429	26.1
Petworth .....	33	26	59	36	28	64	25	30	55	29	39	68	123	123	246	25.7
Thakeham .....	31	30	61	40	33	73	31	39	70	31	26	57	133	128	261	31.6
East Preston .....	38	28	66	24	23	47	30	31	61	29	31	60	121	113	234	27.4
Midhurst .....	66	55	121	47	48	95	53	44	97	49	44	93	215	191	406	28.0
Westbourne .....	29	31	60	23	22	45	31	20	51	26	30	56	109	103	212	28.1
Worthing .....	47	43	90	36	35	71	49	27	76	52	38	90	184	143	327	25.0
Littlehampton .....	10	13	23	7	12	19	8	7	15	13	11	24	38	43	81	19.7
West Worthing .....	—	2	2	—	—	—	1	2	3	—	2	2	1	6	7	6.3
Arundel .....	12	13	25	10	5	15	8	4	12	7	10	17	37	32	69	25.1
<b>TOTAL</b> .....	<b>402</b>	<b>367</b>	<b>769</b>	<b>332</b>	<b>323</b>	<b>655</b>	<b>371</b>	<b>314</b>	<b>685</b>	<b>351</b>	<b>336</b>	<b>687</b>	<b>1456</b>	<b>1340</b>	<b>2796</b>	<b>26.9</b>
In 1876 .....	323	318	641	298	295	593	305	311	616	327	263	590	1253	1187	2440	29.8
" 1877 .....	300	338	638	365	323	688	298	274	572	346	305	651	1309	1240	2549	30.8
" 1878 .....	339	320	659	360	300	660	320	319	639	399	314	623	1328	1253	2581	30.8
" 1879 .....	329	352	681	319	320	639	359	277	636	372	326	698	1379	1255	2634	31.1
" 1880 .....	319	363	682	308	352	660	330	328	658	320	294	614	1277	1337	2614	30.3
" 1881 .....	375	347	722	397	338	735	368	381	749	323	339	662	1463	1405	2868	30.2
" 1882 .....	449	392	841	382	321	703	397	331	728	364	337	701	1592	1381	2973	30.9
" 1883 .....	391	381	772	358	353	711	367	359	726	344	333	677	1460	1426	2886	28.7
" 1884 .....	374	371	745	431	358	789	370	356	726	403	370	773	1578	1455	3033	29.5

TABLE II.—Showing the Ages at death in the Ten Years, 1876-85.

Year.	Population.	Total.	Und 1	- 2	- 5	- 10	- 15	- 25	- 30	- 40	- 50	- 60	- 70	- 80	- 90	- 100	100 & over
1876-79	83,100	M. 2752 F. 2457	542	122	112	74	47	135	82	155	162	234	364	450	251	22	..
1880 ..	86,244	M. 689 F. 598	420	119	116	75	59	125	95	141	154	214	294	367	243	33	2
1881 ..	94,860	M. 720 F. 603	156	42	25	20	12	28	18	29	36	73	91	113	40	6	..
1882 ..	96,220	M. 705 F. 671	111	42	25	25	19	40	15	29	28	42	65	95	60	2	..
1883 ..	100,430	M. 705 F. 782	151	29	28	20	9	34	18	44	49	56	91	106	74	11	..
1884 ..	102,500	M. 756 F. 731	88	24	18	21	10	28	25	38	36	54	97	99	60	4	1
1885 ..	103,930	M. 816 F. 706	150	43	41	24	11	35	13	41	46	53	100	92	51	5	..
			119	38	32	28	18	31	19	51	40	49	75	101	59	11	..
			140	29	37	24	9	38	22	56	62	79	84	116	79	7	..
			115	38	38	22	10	40	19	47	45	55	89	109	66	12	..
			153	42	36	32	21	30	20	41	49	65	73	131	57	6	..
			109	31	28	21	21	42	22	52	55	64	85	114	69	18	..
			132	57	48	22	9	39	19	38	58	62	116	132	72	12	..
			112	32	29	28	12	45	19	43	44	54	89	110	79	10	..
	Total .....	M. 7220 F. 6471	1424	364	327	216	118	339	192	404	462	622	919	1140	624	69	..
	Total, both sexes	13,691	1074	324	286	220	149	351	214	401	402	532	794	995	1260	159	3
	Per 10,000 ..	10,000	1824	503	448	318	195	504	296	588	631	843	1251	1560	920	116	3

TABLE III.—Showing the distribution of the population, as to age and sex in West Sussex and in other districts.

		PROPORTION TO 100,000 PERSONS.							65 & upds.	All ages.
		0-5	5-15	15-25	25-45	45-65				
Combined District . . . . .	{ M	6786	12443	8635	11353	7644			3060	49921
	{ F	6803	11852	8235	12317	7722			3150	50079
Four Urban Districts . . . . .	{ M	6140	11914	7939	10524	5911			2280	44708
	{ F	6189	11249	11560	14723	8152			3419	55292
Seven Rural Districts ..	{ M	6936	12566	8796	11546	8046			3241	51131
	{ F	6946	11922	7464	11758	7622			3087	48869
Leeds and Birmingham..	{ M	7133	11290	9180	13352	6249			1308	48512
	{ F	7241	11506	10095	14008	6942			1696	51488
England and Wales . . . . .	{ M	6767	11437	9165	12472	6760			2062	48663
	{ F	6788	11461	9605	13455	7514			2514	51337

TABLE IV.—Showing the death-rate at 12 different groups of ages in the five years, 1881-85.

MALES.

Year.	All ages.	0-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	56-57	75-85	85 & over.
1881 .....	15.2	32.3	3.2	1.6	2.3	6.8	7.7	7.3	13.6	24.0	49.2	122.2	406.2
1882 .....	14.6	35.7	3.8	1.9	3.3	5.5	5.5	8.3	12.6	21.9	45.9	108.0	214.2
1883 .....	15.6	30.2	3.6	1.5	4.1	4.7	7.6	10.4	18.4	22.1	48.3	135.9	290.0
1884 .....	14.6	32.9	4.7	3.4	2.7	4.2	5.6	9.6	11.9	20.6	46.1	116.7	242.7
1885 .....	15.7	33.6	3.2	1.4	3.6	5.3	5.7	9.2	13.7	26.4	55.0	119.5	394.2
Mean.....	15.14	32.9	3.7	1.9	3.2	5.3	6.4	8.9	14.0	23.0	48.9	120.4	309.4
England(1881) ..	20.0	56.4	5.9	3.3	4.6	6.2	8.3	13.1	18.1	33.5	65.0	137.5	259.3

FEMALES.

1881 .....	12.7	20.1	3.6	1.8	2.2	5.1	6.5	8.0	7.4	27.1	50.6	101.8	236.2
1882 .....	13.9	28.6	4.7	3.3	4.6	3.1	6.8	8.6	9.9	18.5	44.0	108.9	263.5
1883 .....	14.0	27.9	3.5	1.7	3.5	6.3	5.6	8.1	11.9	22.8	48.4	106.2	250.0
1884 .....	14.1	23.9	3.3	3.5	3.8	6.1	6.8	9.4	12.0	19.9	41.0	113.6	292.8
1885 .....	13.6	24.4	4.3	2.0	5.1	5.3	5.9	7.8	10.0	19.1	49.0	113.0	283.7
Mean.....	13.66	25.0	3.9	2.4	3.8	5.2	6.3	8.4	10.2	21.5	46.6	108.7	265.2
England (1881) ..	17.8	48.1	5.8	3.3	4.3	6.1	7.8	10.9	14.4	28.3	57.6	122.1	233.4

TABLE V.—Showing the Deaths and Death-rate from Zymotic Diseases in 1885.

Sanitary District.	Small-pox.	Measles.	Scarlatina	Diphtheria.	Whooping Cough.	Cort. Fevers.			Diarrhoea.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Pu erperal Fever.	Total.	Rate per 1000 persons living.
						Typhus.	Enteric.	Other.							
Steyning Rural .....	...	3	8	2	12	2	2	...	5	1	1	...	...	36	1.9
Horsham " .....	...	...	1	12	5	...	1	...	3	...	1	...	...	23	1.4
Petworth " .....	...	...	...	4	2	...	2	...	1	...	1	...	...	10	1.0
Thakeham " .....	...	...	3	5	2	...	...	...	2	...	2	...	...	14	1.6
East Preston, " .....	...	1	1	2	2	...	...	2	2	...	...	...	...	8	0.9
Midhurst " .....	1	2	2	10	1	...	10	4	2	2	3	...	...	25	1.7
Westbourne, " .....	...	...	...	...	...	...	3	2	2	1	1	...	...	13	1.7
Worthing Urban.....	...	5	...	5	...	...	...	2	2	...	...	...	...	15	1.1
Littlehampton ".....	...	1	...	1	...	...	...	1	1	1	1	...	...	7	1.7
West Worthing, ".....	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...
Arundel ".....	...	...	...	...	...	...	...	...	1	...	...	...	...	1	0.3
Total.	1	12	15	41	24	2	17	4	23	3	10	--	--	152	1.4

TABLE VI. — Showing the Deaths and Death-rate from Zymotic Diseases in each of the 10 years, 1876-85.

Year.	Small-pox	Measles	Scarlatina	Diphtheria	Whoop-cough	Cont. Fevers			Diarrhoea	Rheumatic fever	Erysipelas	Pyæmia	Puerperal fever	Total	Rate per 1000 persons living	Population
						Typhus	Enteric	Other								
1876	3	17	47	14	27	1	11	4	35	1	4	..	5	169	2.0	81,703
1877	1	5	18	15	12	1	8	3	17	6	3	1	4	94	1.1	82,610
1878	2	9	6	13	40	2	10	1	43	1	3	2	6	138	1.6	83,627
1879	..	9	2	22	17	..	9	2	8	4	3	2	1	79	0.9	84,648
1880	..	23	9	12	55	..	15	1	49	1	3	..	3	171	1.9	86,244
1881	1	1	15	25	10	..	12	1	17	7	7	2	5	103	1.0	94,860
1882	..	16	15	35	53	..	10	3	19	4	7	1	1	164	1.7	96,220
1883	5	21	13	24	13	1	18	..	23	6	5	..	2	131	1.3	100,430
1884	..	5	22	32	14	2	12	..	38	..	11	3	4	143	1.3	102,500
1885	1	12	15	41	24	2	17	4	23	3	10	..	..	152	1.4	103,920
Total	13	118	162	233	265	9	122	19	272	33	56	11	31	1344	1.4	

TABLE VII.—Showing the Zymotic Deaths in each month in the year 1885.

	January.	February.	March.	1st Quarter.	April.	May.	June.	2nd Quarter.	July.	August.	September.	3rd Quarter.	October.	November.	December.	4th Quarter.	Year.
Small-pox .....	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Measles .....	2	...	...	2	...	...	...	...	...	1	...	1	2	...	...	9	12
Scarlatina .....	2	1	4	7	2	2	2	6	...	10	...	15	1	1	4	2	15
Diphtheria .....	3	1	3	7	2	7	2	11	3	3	2	8	4	...	...	8	41
Whooping-cough .....	1	3	1	5	1	1	1	3	3	3	2	8	...	3	5	8	24
Cont. { Typhus .....	...	...	1	1	...	...	...	...	3	...	1	1	...	...	...	...	2
{ Enteric .....	1	...	...	1	...	2	1	3	3	5	2	10	...	2	1	3	17
{ Other Forms .....	...	...	...	...	...	...	...	...	2	1	1	4	...	...	...	...	4
Diarrhoea .....	3	1	1	5	...	3	1	4	1	1	1	9	1	2	2	5	23
Rheumatic Fever .....	...	1	...	1	...	...	1	1	...	2	6	...	1	...	...	1	3
Erysipelas .....	1	2	...	3	...	2	1	3	1	...	...	1	3	...	...	3	10
Pyæmia .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total .....	13	10	10	33	5	17	9	31	13	22	14	49	12	11	16	39	152

TABLE VIII.—Showing the Deaths from Zymotic Diseases in each Month in the 6 years, 1880-85.

	January	February	March	1st Quarter	April	May	June	2nd Quarter	July	August	September	3rd Quarter	October	November	December	4th Quarter	Year
Small-pox.....	...	1	...	1	...	4	1	5	...	...	...	...	..	1	..	1	7
Measles.....	7	3	5	15	5	2	17	24	10	11	3	24	6	5	4	15	78
Scarlatina.....	15	9	6	30	7	7	6	20	3	3	3	9	14	10	6	30	89
Diphtheria.....	11	8	11	30	9	19	11	39	12	21	12	45	23	16	16	55	169
Whooping-cough	13	17	20	50	12	22	11	45	15	11	17	43	12	10	9	31	169
Cont. Fevers {	1	...	1	2	...	...	..	...	...	1	1	2	1	...	...	1	5
Typhus.....	5	4	9	18	1	9	8	18	6	6	4	16	12	13	7	32	84
Enteric.....	...	...	2	2	..	2	..	2	2	1	1	4	...	1	..	1	9
Other.....	5	5	7	17	4	7	5	16	7	60	48	115	11	5	5	21	169
Diarrhoea.....	...	3	4	7	2	1	2	5	..	3	2	5	1	2	1	4	21
Rheumatic Fever	...	7	...	11	4	3	3	10	4	3	3	10	4	3	5	12	43
Erysipelas.....	..	...	..	...	2	...	1	3	1	...	1	2	..	..	1	1	6
Pyæmia.....	2	...	3	5	3	...	1	4	1	...	2	3	..	2	1	3	15
Puerperal Fever	...	...	...	...	3	...	1	4	1	...	2	3	..	2	1	3	15
Total.....	63	57	68	188	49	76	66	191	61	120	97	278	84	68	55	207	864



TABLE X.—Showing the Deaths in each Month in the Ten Years, 1876-85.

MONTH.	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	Total.	Average Temp.
January .....	116	103	137	150	126	125	132	127	117	182	1315	38.9
February .....	144	115	126	119	129	118	108	118	124	151	1252	39.7
March .....	146	112	103	129	109	126	141	154	140	115	1275	41.5
April .....	124	111	115	130	121	131	98	148	118	129	1225	47.2
May .....	120	104	98	113	115	117	118	137	101	130	1153	52.7
June .....	95	109	109	84	97	106	103	139	114	101	1057	59.8
July .....	78	88	100	75	92	93	100	107	116	117	966	62.5
August.....	131	84	98	92	106	110	112	108	147	112	1100	61.9
September .....	84	94	131	99	116	104	117	107	120	116	1088	57.5
October .....	107	96	103	82	85	109	100	104	125	97	1008	50.9
November .....	102	86	103	88	100	98	116	125	121	139	1069	42.8
December .....	104	110	131	131	91	86	131	113	144	142	1183	40.8
Year .....	1351	1212	1354	1292	1287	1323	1376	1487	1487	1522	13691	—

The average temperature is taken from the records at Greenwich for the Twenty years, 1849-68.

TABLE XI.—Showing the Deaths and Death-rate from all causes and from various causes in the 10 years, 1876-85.

Year.	Annual Number of Deaths.					Population	Annual Rate per 100,000 living.				
	All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease		All Diseases	Zymotic Disease	Phthisis	Lung Disease	Heart Disease
1876	1351	169	139	176	117	81703	1654	206	170	215	143
1877	1212	94	152	138	111	82610	1467	113	184	167	134
1878	1354	138	151	213	98	83627	1619	165	180	254	117
1879	1292	79	143	216	134	84648	1526	93	168	255	158
1880	1287	171	129	204	89	86244	1492	198	149	236	103
1881	1323	103	117	193	128	94860	1396	108	123	203	135
1882	1376	164	131	191	120	96220	1430	170	136	198	124
1883	1487	131	158	209	134	100430	1480	130	157	208	133
1884	1487	143	159	222	147	102500	1450	139	155	216	143
1885	1522	152	126	266	126	103930	1464	146	121	256	121
Total	13691	1344	1405	2028	1204	.....	1497	146	154	220	131

TABLE XII.—Showing the causes of death in 1885.

Causes of Death.	Steyning R.S.D.	Horsham R.S.D.	Petworth R.S.D.	Thakeham R.S.D.	East Preston R.S.D.	Midhurst R.S.D.	Westbourne R.S.D.	Worthing U.S.D.	Littlehampton U.S.D.	West Worthing U.S.D.	Arundel U.S.D.	Total.		Total both sexes.
												M.	F.	
All Causes	260	228	155	119	132	233	125	178	47	8	37	816	706	1522
Zymotic Diseases	36	23	10	14	8	25	13	15	7	..	1	88	64	152
Phthisis	24	15	15	10	12	20	4	14	4	..	8	62	64	126
Disease of the Brain	17	19	21	6	11	25	19	25	6	1	2	87	65	152
"  Heart	20	21	8	10	9	21	5	18	7	1	6	70	56	126
"  Lungs	50	49	25	27	25	33	26	21	4	1	5	144	122	266
"  Digestive organs	15	15	16	12	4	8	6	6	3	..	..	51	35	86
"  Urinary	6	3	6	1	4	3	1	5	2	..	..	19	12	31
"  Uterine	..	..	..	1	1	..	..	..	..	..	..	..	5	5
Childbirth	3	1	2	3	2	..	1	2	..	..	..	..	11	11
Infantile Debility	10	7	5	3	3	7	7	4	..	..	..	25	21	46
Convulsions	12	6	10	2	3	6	3	10	3	..	..	28	27	55
Premature Birth	9	9	4	8	2	7	2	4	1	..	..	27	19	46
Old Age	16	27	21	1	17	38	12	22	4	..	10	78	90	168
Accident	7	5	3	5	6	7	3	1	3	1	..	32	9	41
Suicide	1	..	2	2	2	..	1	3	1	..	..	9	3	12
Other causes	34	28	7	14	23	33	22	28	2	4	5	96	103	199

TABLE XIII.—Showing the Deaths from Accidents in the ten years, 1876-85.

Mode of Death.	Steyning R.S.D.		Horsham R.S.D.		Petworth R.S.D.		Thakeham R.S.D.		East Preston R.S.D.		Midhurst R.S.D.		Westbourne R.S.D.		Worthing U.S.D.		Littlehampton U.S.D.		West Worch U.S.D.		Arundel U.S.D.		Total		Total both sexes.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
By Drowning.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	
" Suffocation ..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	
" Falls .....	1	..	2	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14	
" Beingrun over	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	
" Railway .....	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	
" Burns & scalds	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	
" Modesnot stat.	3	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	
TOTAL .....	6	1	4	1	2	1	4	1	5	1	4	3	2	1	1	3	10	1	1	1	1	1	1	32	9	41
In 1876-80 .....	28	4	23	7	17	4	10	3	15	4	11	4	..	..	10	1	8	2	..	..	..	..	..	122	29	151
" 1881 .....	1	2	4	1	2	1	4	2	3	1	2	2	1	2	2	2	..	..	..	..	..	..	..	19	9	28
" 1882 .....	3	2	8	2	1	1	2	2	1	1	4	1	1	1	2	1	1	1	..	..	..	..	..	22	10	32
" 1883 .....	5	1	6	2	2	3	5	2	1	1	3	2	2	2	6	6	..	..	..	..	..	..	..	30	9	39
" 1884 .....	6	..	4	2	4	4	5	5	3	..	3	1	1	1	2	1	1	1	..	..	..	..	..	29	5	34
Total in 10 years	49	10	49	15	27	10	30	6	28	7	27	11	7	5	23	5	13	2	1	1	1	1	1	254	71	325

TABLE XIV.—Showing the Deaths by Suicide in the ten years, 1876-85.

Mode of Death.	Steyning R. s. D.		Horsham R. s. D.		Petworth R. s. D.		Thakeham R. s. D.		East Preston R. s. D.		Midhurst R. s. D.		Westbourne R. s. D.		Worthing u. s. D.		Littlehampton u. s. D.		West Worthing u. s. D.		Arundel u. s. D.		Total.		Total both sexes.		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
By Drowning .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
By Hanging .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
By Cutting Throat .....	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL.....	1	...	2	...	2	...	2	...	2	...	2	...	2	...	2	...	2	...	2	...	2	...	2	...	2	...	2
In 1876-80 .....	10	1	6	1	2	...	3	1	2	1	5	2	...	...	5	1	1	...	...	...	...	...	...	34	7	41	
In 1881 .....	2	...	2	...	3	...	2	...	1	...	...	1	...	...	2	...	2	...	...	...	...	...	...	14	1	15	
In 1882 .....	3	...	...	1	...	...	...	...	1	1	3	1	...	...	1	...	...	...	...	...	...	...	...	8	3	11	
In 1883 .....	2	1	1	...	1	1	2	...	2	...	...	1	...	...	1	1	1	...	...	...	...	...	...	10	4	14	
In 1884 .....	1	1	2	1	2	...	1	...	...	...	...	1	...	...	2	1	...	...	...	...	...	...	...	8	4	12	
TOTAL IN 10 YEARS...	18	4	11	3	10	1	10	1	6	4	8	5	1	1	14	3	5	...	...	...	...	...	83	22	105		

TABLE A.—Showing the Deaths during the year 1885, in the Combined Sanitary Districts and showing also the Population of the same

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	MORTALITY FROM ALL CAUSES AT SUBJOINED AGES.								
	CENSUS 1881	Estimated to middle of 1885		At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwds.		
1	2	3	4	5	6	7	8	9	10	11	12	
Steyning R.S.D.	16325	18160	524	238	57	33	7	10	52	79	Under 5. ..... 5 upwds	
Horsham R.S.D.	15426	16430	429	233	39	31	12	14	48	89	Under 5. ..... 5 upwds	
Petworth R.S.D.	9595	9550	246	155	20	16	5	8	34	72	Under 5. ..... 5 upwds	
Thakeham R.S.D.	8285	8250	261	116	21	13	8	5	25	44	Under 5. ..... 5 upwds	
East Preston R.S.D.	8025	8530	234	146	19	11	7	7	34	68	Under 5. ..... 5 upwds	
Midhurst R.S.D.	13933	14500	406	233	32	23	15	17	47	99	Under 5. ..... 5 upwds	
Westbourne R.S.D.	7420	7520	212	125	20	7	6	5	26	61	Under 5. ..... 5 upwds	
Worthing U.S.D.	10976	13040	327	170	29	20	7	9	43	62	Under 5. ..... 5 upwds	
Littlehampton U.S.D.	3926	4100	81	44	4	7	1	2	16	14	Under 5. ..... 5 upwds	
West Worthing U.S.D.	689	1100	7	8	1		1		3	3	Under 5. ..... 5 upwds	
Arundel U.S.D.	2748	2750	69	36	3	4	1	5	8	15	Under 5. ..... 5 upwds	
TOTALS .....	97348	103930	2796	1504	245	165	70	82	336	606	Under 5. ..... 5 upwds	
Deaths occurring outside the district among persons belonging thereto.....				41			1	1	3	10	26	Under 5. ..... 5 upwds
Deaths occurring within the District among persons not belonging thereto .....				41	3				1	17	20	Under 5. ..... 5 upwds

t of WEST SUSSEX, classified according to Diseases, Ages, and Localities,  
ies, and the Births therein during the year.

MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER  
FIVE YEARS OF AGE.

Diphtheria.	Croup (not "spasmodic")	Whooping Cough.	Cont Fevers				Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia, & Pleurisy.	Heart Disease	Injuries.	Other Diseases
16	17	18	Typhus.	Enteric or Typhoid	Other or Doubtful	22	23	24	25	26	27	28	29	30	31	32	33	
2		10				2			1					24			44	
		1	2	2		3		1					21	24	18	7	65	
4		5												21		3	37	
8					1	3			1				15	28	21	2	83	
1		2				1								8			24	
3				2					1				15	17	8	5	68	
2		2							1					8		1	19	
3						2			1				10	19	10	6	29	
2		2												8		3	13	
													13	17	10	5	71	
3		1				3			1					11		2	31	
7						1		2	2				20	22	21	5	96	
				1		1								5		1	19	
				9		1			1				4	21	5	3	54	
3						2								11			29	
2				3									13	10	17	4	71	
					2	1								2		1	5	
1					1				1				4	2	6	3	14	
																	1	
														1	1	1	4	
						1								4			2	
														1	6		14	
17		22		1	2	11			3					102		11	224	
24		1	2	16	2	10		3	7				123	162	123	41	569	
																	1	
		1				1					1		4	2	4	1	26	
																	2	
													1	1	3		33	

TABLE B.—Showing the New Cases of Sickness coming to the knowledge  
Sanitary District of WEST SUSSEX,

NAMES OF LOCALITIES.  1	NEW CASES OF SICKNESS IN PERSONS BELOW						
	12	Smallpox 13	Measles 14	Scarlatina 15	Diphtheria 16	Croup (not "spasmodic") 17	Whooping Cough 18
	Under 5						
Steyning R.S.D. ... ..	Under 5		11	3			20
	5 upwds.		11	6	2		14
Horsham R.S.D. ... ..	Under 5		1	3	1		6
	5 upwds.		5	8	3		5
Petworth R.S.D. ... ..	Under 5			5			5
	5 upwds.			8	6		3
Thakeham R.S.D. ... ..	Under 5			3			
	5 upwds.		4	4			
East Preston R.S.D. ... ..	Under 5		10				
	5 upwds.		9	2	1		
Midhurst R.S.D. ... ..	Under 5		12		3		1
	5 upwds.		15	3	4		2
Westbourne R.S.D. ... ..	Under 5						17
	5 upwds.		3				6
Worthing U.S.D. ... ..	Under 5		32				
	5 upwds.		26	2			
Littlehampton U.S.D. ... ..	Under 5						2
	5 upwds.						
West Worthing U.S.D. ... ..	Under 5						
	5 upwds.						
Arundel U.S.D. .... ..	Under 5						
	5 upwds.		1				
Totals .....	Under 5		66	14	4		51
	5 upwds.		74	33	16		30

Sources of Information: In Workhouse and Workhouse Infirmary, ...  
As Out-patient ...

Medical Officer of Health, during the year 1885, in the Combined according to Localities and Diseases.

DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS

Localities	Diarrhoea and Dysentery 22	Cholera 23	Rheumatic Fever 24	Erysipelas 25	Pyæmia 26	Puerperal Fever 27	Ague 28	Other Diseases, such as Chicken Pox or Pneumonia which the Medical Officer of Health thinks well to record.
	3							
	8			4				
	5							
	18			4				
	3							
	10							
				3				
	2							
	6		4	2				
	2							
	9			3				
	5			3				
	6							
	4		4	2				
	1							
							1	
	21							
	61		8	21			1	

The Out-door Paupers, 3517. As In-patients of Hospitals 84. 1638.

Other Diseases, such as  
Quincy's or Pneumonia  
with the Medical Officer  
of Health think well to  
report.

Year	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Quincy's or Pneumonia																				
Other Diseases																				

One hour papers 287. A-10 patients of hospital.

h